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# UNDERGRADUATE BULLETIN



**ST. CLOUD STATE UNIVERSITY**

*A tradition of excellence and opportunity*





1998-2000

### THE VALUE OF THE BACCALAUREATE.

A university is a community of students, faculty and professional staff dedicated to the active life of the intellect in which questions are more important than answers. Seeking answers is just part of the process. A St. Cloud State University education should challenge the way you think.

Through your experience in general education, you will gain for yourself an introduction to the world's great ideas. As you reach to understand and appreciate the world's cultures, you will better understand your own. As you examine your universe through science and technology, you will prepare for responsible care of your planet Earth. And, enjoying the creativity of the world's people through their performing and visual arts will challenge your own creativity. This is your gift to yourself for the future.

As you pursue your major course of study, you will experience an environment in which you will have opportunities to lead—and to work as a member of a group. In becoming an educated person, you will learn to think creatively, communicate effectively and solve problems in innovative ways. Against this background, and aided by these experiences and this knowledge, you will decide how to make a productive connection with a career. This is your gift to the world for the future.

And you will learn the necessary skills and earn your credentials and your confidence. One significant ability will emerge from within you. As a St. Cloud State University student, you will learn how to learn—and it will make all the difference in the world.

**COLLEGE OF BUSINESS • COLLEGE OF SOCIAL SCIENCES  
• COLLEGE OF SCIENCE AND ENGINEERING • COLLEGE OF EDUCATION  
• COLLEGE OF FINE ARTS AND HUMANITIES**

**ST. CLOUD STATE UNIVERSITY**  
*A tradition of excellence and opportunity*



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Since St. Cloud State University opened its doors on the banks of the Mississippi River 129 years ago, it has evolved into a comprehensive university whose tradition of excellence and opportunity is nationally recognized. As the largest undergraduate university in Minnesota, St. Cloud State has more than 14,000 students enrolled in 70 undergraduate and 37 graduate programs.

St. Cloud State is building for the future with a faculty dedicated to providing a high-quality, practical education and a staff committed to fostering in students a strong community spirit through service in more than 200 campus and community-linked organizations. SCSU also is building for the future with construction of a \$32.6-million, 213,000-square-foot, state-of-the-art library that will house the latest technology and information, a facility that will be a significant addition to an already impressive physical campus.

National accreditation is an important indicator of quality in higher education, and SCSU surpasses other Midwestern universities with its volume of nationally accredited colleges and degree programs, a fact that confirms St. Cloud State's high academic standards. The 26 programs and colleges which have earned such recognition include business, mass communications, education, aviation and electrical engineering.

The St. Cloud State campus is enriched by a growing number of students and faculty of color and by the more than 500 international students from more than 50 countries it welcomes each year. Hundreds of our students each year participate in international studies programs in England, Denmark, France, Spain, Germany, Costa Rica, Czech Republic, Japan, China and other countries.

St. Cloud State University offers the best of both worlds: a campus that's big enough to have faculty, resources and programs that are second to none in excellence, yet is small enough to offer students the opportunity to develop and grow in a closely knit community where students are known by name, not by number. We look forward to learning your name.

Bruce F. Grube  
President

### Cultural Diversity

As an SCSU student, you will be a member of a university community that is committed to creating a positive, supportive environment which welcomes a diversity of opinions and ideas for students, faculty, and staff of all cultures. SCSU is dedicated to providing equal education and employment opportunities to all persons, regardless of race, gender, age, status or physical condition. We will not tolerate racism or harassment or any derogatory remarks about a student's race, class, age, gender, or physical limitations. The best and most effective learning for tomorrow's leaders takes place in a multicultural setting.



# HOW TO USE THIS BULLETIN

This undergraduate bulletin, commonly referred to as a "course catalog," contains all of the necessary information for you to be successful in following the academic career path you have chosen (or will choose) at St. Cloud State University. This bulletin contains information on the five colleges at SCSU, academic departments, courses, and various other non-academic programs and offerings available to make your experience at St. Cloud State beneficial.

At the beginning of this bulletin is a list of the majors and minors within each college. Section three includes All-university programs and courses, and the five colleges listed alphabetically, followed by an alphabetical listing of departments, centers and programs. Course descriptions are listed within each department. Departments and courses also may be found by using the index in the back of this bulletin. To assist you in determining your programs of interest, the bulletin has been organized by the following sections:

## 1. POLICIES AND PROCEDURES YOU SHOULD KNOW

- General education
- Programs of study
- Admissions requirements and academic information
- Financial aid

## 2. CAMPUS LIFE AND STUDENT SERVICE

- Student Life and Development
- University services

## 3. COLLEGES, DEPARTMENTS, CENTERS AND PROGRAMS

- All-university programs and courses
  - Evening program
  - Honors programs
  - International studies
- Colleges
  - Business
  - Education
  - Fine Arts and Humanities
  - Science and Engineering
  - Social Sciences
- Departments within the colleges

## 4. FACULTY AND ADMINISTRATION

- Board of Trustees
- Faculty
- Buildings and properties

## AFFIRMATIVE ACTION/EQUAL OPPORTUNITY

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, sexual orientation/affectional preference, national origin, mental or physical disability, 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. Further, the university will not tolerate acts of sexual harassment/assault within its area of jurisdiction. St. Cloud State University will continue to remain in full compliance with: Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, The Americans with Disabilities Act of 1990, Section 402 of the Vietnam Era Veterans Readjustment Assistance Act of 1974, and the 1992 Crime Bill.

Inquiries or complaints concerning the application of affirmative action, equal opportunity or Title IX at St. Cloud State University should be referred to the affirmative action officer, 654-5123. Inquiries about services offered under Section 504 of the Rehabilitation Act of 1973 or the American's With Disabilities Act of 1990 should be referred to the assistant vice president for Student Life and Development, 255-3111.

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# ABBREVIATIONS

Cr.	Credit
Undgr.	Undergraduate
Gr.	Graduate
Prereq.	Prerequisite
Lab.	Laboratory
ACCT	Accounting
AMST	American studies
ANTH	Anthropology
APSY	Applied psychology
ART	Art
ASTR	Astronomy
AVIT	Aviation
BCIS	Business computer information systems
BIOL	Biological sciences
CCS	Center for Community Studies
CHEM	Chemistry
CDIS	Communication disorders
CFS	Child and family studies
CJS	Criminal justice
COMM	Mass communications
CSCI	Computer science
DAN	Danish
EAST	East Asian studies
ECON	Economics
ED	Education
EDAD	Educational administration
EE	Electrical engineering
ESL	English as a second language
ENGL	English
ENGR	Engineering science
ENV	Environmental studies
ESCI	Earth sciences
ETS	Environmental and technological studies
EXST	External studies
FA	Fine arts
FIRE	Finance, insurance, and real estate
FREN	French
FST	Futures studies
GEOG	Geography
GER	German
HIST	History
HLTH	Health
HONS	Honors
HURL	Human relations
IM	Information media
LAST	Latin American studies
MATH	Mathematics
MCS	Microcomputer studies
MEDT	Medical technology
MFGE	Manufacturing engineering
MGMT	Management
MINS	Minority studies
MKGB	Marketing and general business
MUSE	Music education
MUSM	Music musicianship
MUSP	Music performance
ORIE	Orientation
PE	Physical education
PE/SS	Physical education and sport science
PHIL	Philosophy
PHYS	Physics
POL	Political science
PSY	Psychology
REC	Recreation
RDNG	Reading
REL	Religious studies



RHET	Rhetoric
RUSS	Russian
SCI	Science
SOC	Sociology
SPAN	Spanish
SPC	Speech communication
SPED	Special education
SS	Sport science
SSCI	Social science
SST	Social studies
SW	Social work
THFS	Theatre and film studies
URB	Local and urban affairs
WS	Women's studies

## UNIVERSITY PHONE NUMBERS

### Area code 320

University Switchboard	255-0121
Academic Affairs	255-3143
Admissions	255-2243
Atwood Memorial Center	255-3822
Business Office	255-3135
Career Services	255-2151
Financial Aid	255-2047
Graduate Studies	255-2113
Learning Resources Services	255-2084
Public Relations/Publications	255-3151
Records and Registration	255-2111
Residential Life	255-2166

## KEY TO SYMBOLS

### Semester offered

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

Semester course designations are provided to assist in 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.

## COLLEGE OF BUSINESS

Accounting  
Business computer information systems  
Finance  
General business  
Insurance  
International business  
Management  
Marketing  
Real estate

## COLLEGE OF EDUCATION

Applied psychology  
Athletic coaching\*  
Athletic training\*  
Community health  
Dance\*  
Developmental adapted physical education  
Early education  
Elementary education  
Health education  
Human relations\*  
Information media  
Physical education and sport science  
Recreation administration  
Secondary education  
Special education  
Traffic safety\*  
Therapeutic recreation\*

## COLLEGE OF SOCIAL SCIENCES

African studies\*  
American studies  
Anthropology  
Community Studies\*  
Criminal justice  
East Asian studies\*  
Economics  
Geographic information systems\*  
Geography  
Gerontology\*  
History  
International relations  
Land surveying/mapping sciences  
Latin American studies  
Local and urban affairs  
Minority studies\*  
Political science  
Private security\*  
Psychology  
Public administration  
Social science  
Social studies  
Social work  
Sociology  
Women's studies

## COLLEGE OF FINE ARTS AND HUMANITIES

Art  
Art history  
Communication disorders  
Creative writing  
English  
Film studies\*  
Foreign languages\*  
French  
German  
Graphic design  
Mass communications  
Music  
Philosophy  
Religious studies\*  
Russian Language, Literature and Culture\*  
Soviet studies\*  
Spanish  
Speech communication  
Speech-interdepartmental  
Theatre

\*Minor only

## COLLEGE OF SCIENCE AND ENGINEERING

Applied computer science  
Aquatic biology  
Aviation  
Biology  
Biology-teaching  
Biomedical science  
Biotechnology  
Cell biology  
Chemistry  
Comprehensive biology  
Comprehensive earth sciences  
Comprehensive general science  
Comprehensive physical science  
Comprehensive physics  
Computer science  
Data voice communications\*  
Earth sciences  
Ecology and field biology  
Electrical engineering  
Environmental assessment and management  
Environmental studies\*  
Manufacturing engineering  
Mathematics  
Medical technology  
Meteorology  
Microcomputer studies\*  
Network modeling and simulation  
Nuclear medicine technology  
Physics  
Statistics  
Technology\*  
Technology assessment and management  
Technology education  
Wildlife management





## 1998 FALL SEMESTER

Wednesday-Friday, August 19-21	University workshops/orientation/registration
Monday, August 24	Fall classes begin
Monday, September 7	Labor Day; no classes; offices closed.
Wednesday, November 11	Veterans' Day; Classes in session; offices closed
Wednesday-Sunday, November 25-29	Thanksgiving break
Monday, November 30	Classes resume
Monday-Friday, December 14-18	Final exams
Saturday, December 19	Commencement
Monday, December 21	Grades due 3 p.m.

## 1999 SPRING SEMESTER

Wednesday-Friday, January 6-8	University workshops/orientation/registration.
Monday, January 11	Day/evening classes begin.
Monday, January 18	Martin Luther King Day; no classes; offices closed
Monday, February 15	President's Day; classes in session; offices closed
Monday-Friday, March 8-12	Spring break
Monday, March 15	Classes resume
Monday-Friday, May 3-7	Final exams
Saturday, May 8	Commencement
Monday, May 10	Grades due 3 p.m.

## 1999 SUMMER SESSION

Monday, June 7	Classes begin
Monday, July 5	Holiday; no classes
Friday, July 30	Last day of classes

## 1999 FALL SEMESTER

Wednesday-Friday, August 18-20	University workshops/orientation/registration
Monday, August 23	Fall classes begin
Monday, September 6	Labor Day; no classes; offices closed
Thursday, November 11	Veterans' Day; classes in session; offices closed
Wednesday-Sunday, November 24-28	Thanksgiving break
Monday, November 29	Classes resume
Monday-Friday, December 13-17	Final exams
Saturday, December 18	Commencement
Monday, December 20	Grades due 3 p.m.

## 2000 SPRING SEMESTER

Wednesday-Friday, January 5-7	University workshops/orientation/registration
Monday, January 10	Day/evening classes begin
Monday, January 17	Martin Luther King Day; no classes; offices closed
Monday, February 21	President's Day; classes in session; offices closed
Monday-Friday, March 6-10	Spring break
Monday, March 13	Classes resume
Monday-Friday, May 1-5	Final exams
Saturday, May 6	Commencement
Monday, May 8	Grades due 3 p.m.



## HISTORY

St. Cloud State University (SCSU) opened its doors to students in 1869, under the name Third State Normal School. The school consisted of one building, the Stearns House, a renovated hotel purchased by the state Legislature for \$3,000. Classrooms were on the first floor, the "model school" was on second floor and a women's dormitory was housed on the third floor.

The five-member faculty was headed by Principal Ira Moore. Of the 53 original students, 43 were women. From this modest beginning, St. Cloud State has evolved into a university with a national reputation for excellence, a faculty of more than 700 and a student body of more than 14,000 full- and part-time students. SCSU is now the largest of the seven Minnesota state universities.

In 1898, the school began offering a junior college curriculum. In 1914 the school dropped its secondary education program entirely. The legislature authorized a name change in 1921, allowing the school to adopt the name St. Cloud State Teachers College (the word "teachers" was deleted in 1957). In 1975, St. Cloud State became a university, comprised of five colleges and a graduate school.

The first bachelor's degrees were awarded in 1925, with master's degree programs offered beginning in 1953. SCSU now confers degrees from its colleges of Business, Education, Fine Arts and Humanities, Science and Engineering, Social Sciences, and the School of Graduate and Continuing Studies.

Building on its rich history as a teacher preparatory college, SCSU has built strong academic programs in other areas. SCSU's College of Business, for example, is recognized as one of the top business colleges in the country and is one of only two in the state that is nationally accredited. Within the past decade the College of Science and Engineering established and gained full accreditation for its electrical

engineering program.

The university also has international studies centers in England, Czech Republic, Denmark, France, Germany, China, Japan and Costa Rica. Students and faculty from St. Cloud State study at these centers and international exchanges are fostered. Currently students from at least 50 countries study at SCSU.

The university serves regional businesses and industries through its applied research centers. Priority areas of research at St. Cloud are computer control of manufacturing technologies, material analysis, biotechnology, microelectronics, and software development and design.

University life includes thriving and enriching recreation programs, arts and performance areas, athletic teams, lectures and student organizations.

Today, SCSU is a multipurpose university with more than 65,000 alumni. Recognized as a national leader in education, St. Cloud State University is educating citizens for the entire world.

## 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 mid-west 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.

## GOALS

### Excellence in teaching and learning

- ▼ Foster effective teaching and learning as the university's primary mission.
- ▼ Enhance academic achievement by strengthening standards in teaching and learning.
- ▼ Promote liberal arts and sciences as an integral part of the general education program and many major and minor programs while providing opportunities for specialized learning at the graduate and undergraduate levels.
- ▼ Prepare students for leadership and for fulfilling careers.
- ▼ Provide knowledge of the social, intellectual, and artistic foundations of culture and history.
- ▼ Provide students with skills they need for productive and responsible living, such as creative and critical thinking, problem solving, communication, and self-understanding.
- ▼ Support a humane, effective, and equitable environment for teaching and learning.
- ▼ Impart through academic programs an appreciation of both continuity and change.
- ▼ Instill a sensitivity and respect for the values of a diverse society and multicultural world and a concern for individual worth and human rights.
- ▼ Foster an understanding of the application of technology and scientific methods.
- ▼ Develop skills necessary for critical evaluation of information, technology, and methodology.
- ▼ Provide an opportunity for international awareness including inter-relationships among economics, environment, geography, history, politics, religion, arts and foreign languages.
- ▼ Develop teaching methods, programs, and services to meet the needs of a diverse student body, including an increasing number of non-traditional students.





- ▼ Strengthen resources for active learning and opportunities for the application of knowledge.
- ▼ Acknowledge a special obligation to the citizens of Minnesota by providing access to life long learning.
- ▼ Promote and foster an understanding of the value of higher education for the purpose of creating a more informed public.

#### **Scholarship, Creative and Artistic Endeavors and Research**

- ▼ Value the complex inter-relatedness of research, teaching, and learning by supporting and recognizing scholarship which strives to discover, integrate, apply, and transmit knowledge.
- ▼ Support creative and artistic activities as a means of personal and professional development as well as a contribution to the cultural life of the community.
- ▼ Provide an environment which will attract and retain quality faculty and staff and support continuing professional development.
- ▼ Affirm academic freedom and freedom of inquiry in all of its pursuits.

#### **Service and Collaborative Working Relationships**

- ▼ Promote understanding of ethical behavior in personal, professional, and public life.
- ▼ Enhance understanding of a citizen's responsibilities to others, to society, and to the environment.
- ▼ Provide educational, cultural, and artistic opportunities for the region.
- ▼ Encourage involved citizenship at the local, state, national, and global level.
- ▼ Expand our cooperation with other colleges, universities, and K-12 institutions in the support and development of quality programs.
- ▼ Establish SCSU as the university of choice in Minnesota for students of color.
- ▼ Collaborate in the development of educational programs and research endeavors to assist the community and technical colleges, business, industry, governments, and other organizations.

## **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 (30 North LaSalle Street, Suite 2400, Chicago, IL 60602, 311-263-0456), 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 American Assembly of Collegiate Schools of Business, the International Association for Management Education at both the bachelor's and master's degree levels. The art department is accredited by the National Association of Schools of Arts and Design. The chemistry program is approved by the American Chemical Society. The communication disorders program is accredited by the American Speech, Language and Hearing Association. The mass communications department is accredited by the Accrediting Council on 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 social work department is accredited by the Council on Social Work Education. The electrical and manufacturing engineering programs are accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (EAC/ABET). The computer science program is accredited by the Computer Science Accreditation Commission of the Computing Sciences Accreditation Board, Inc. The environmental and technological studies department provides a technology education program which is accredited by the Council of Technology Teacher Education, The International Technology Education, and the National Council for Accreditation of Teacher Education (CTTE/ITEA/NCATE). Undergraduate and graduate licensure programs in special education are approved by the Council for Exceptional Children. The earth sciences department provides a program which is approved by the American Meteorological Society. The program also meets the standards set forth by the National Weather Service. The aviation majors are accredited by the Council on Aviation Accreditation (CAA). The physical education teaching major is approved by the National Association of Sport and Physical Education (NASPE). The theatre program is accredited by the National Association of Schools of Theatre. Health Services is accredited by Accreditation Association for Ambulatory Health Care, Inc. The master's program in

rehabilitation counselor education in the Department of Applied Psychology is accredited by the Council on Rehabilitation Education. The chemical dependency program in the Department of Applied Psychology is accredited by the Institute for Chemical Dependency Professionals of Minnesota. The school counseling graduate programs in applied psychology are accredited by the National Council for Accreditation of Teacher Education (NCATE). The special education programs are approved by the Council for Exceptional Children. The health education major is approved by the American Association for Health Education (AAHE). All teaching licensure programs are accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Minnesota Board of Teaching; individual elementary and secondary programs are also approved by the National Council of Teachers in English, National Council of Teachers of Mathematics, National Science Teachers Association, National Council for Social Studies, National Middle School Association, and Association for Childhood Education International. The Prekindergarten and Early Childhood Special Education programs are approved by the National Association for the Education of Young Children (NAEYC).



## 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.

## STUDENT RECORDS AND DIRECTORY INFORMATION

Pursuant to the Family Educational Rights and Privacy Act of 1974, students at St. Cloud State University are entitled to review records, files, documents and other materials containing information directly related to them which are maintained by the university. In accordance with regulations issued by the Secretary of Health, Education and Welfare, students may request a hearing to challenge the content of education records to 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 respecting the contents of such records if suggested corrections or deletions are not made by the university.

Access and review is subject to the following conditions:

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

The Act further states that certain information can be construed to be directory information which is available to the public. These are the items the university declares to be directory information available to the public: name, address (restricted to local or permanent postal address), telephone listing, date and place of birth, major field of study, class status (freshman, sophomore, etc.), participation in officially rec-

ognized activities and sports, weight and heights of members of athletic teams, dates of attendance, degrees and graduation honors received, and the most recent previous educational agency or institution attended. Confidential information will not be released regardless of student's financial support. A student has the right to inform the university that any or all of the above information should not be released without her/his 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.

SCSU usually requires a student's consent before releasing information which is not public. Exceptions are provided for in the law which allow SCSU, in its discretion, to release non-public information without consent; however, non-public information generally will not be given to parents or legal guardians, regardless of financial support, without the student's consent.

## 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, sexual orientation/affective preference, national origin, mental or physical disability, 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. Further, the university will not tolerate acts of sexual harassment/assault within its area of jurisdiction. St. Cloud State University will continue to remain in full compliance with: Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, The Americans with Disabilities Act of 1990, Section 402 of the Vietnam Era Veterans Readjustment Assistance Act of 1974, and the 1992 Crime Bill.

Inquiries or complaints concerning the application of affirmative action, equal opportunity or Title IX at St. Cloud State University should be referred to the affirmative action officer, 654-5123. Inquiries about services offered to students under Section 504 of the Rehabilitation Act of 1973 or the Americans with Disabilities Act of 1990 should be referred to the Student Life and Development Office at 255-3111, and for faculty and staff to the Human Resources Department at 255-3203.





## SEMESTER CONVERSION ADVISING PLAN

St. Cloud State University is committed to providing extra advising for students making the transition from quarters to semesters. This information should answer many questions students may have about advising. Other questions should be referred to the Office for Academic Affairs, AS 209, (320) 255-3143 or the Faculty Director of Advising, AS 102.

Students have a responsibility to see an adviser and complete a semester transition plan before registering for the first semester.

1. Departments each have advising plans translating quarter majors/minors/programs into semesters. Students should ask in the office of the individual department if they have a general question about the plan.

2. Academic Affairs has prepared a translation document for General Education. Copies are available in the Office for Academic Affairs and in the offices of the Dean of each college. Advisers have also been given a copy to use in their work with students.

3. The Registrar's Office has developed forms and worksheets for semester advising.

Students should seek advising based on the following groupings:

### 1. Declared and Intended Majors, Pre-professional Students.

- Each department has been provided with a list of students who have been admitted to each major, or whose record shows a clear intention to enter the major. Pre-professional advisers have received an equivalent list.

- Departments may use a variety of models to advise these students, but each student is to have a plan showing what courses have been taken under quarters and what courses remain to be taken under semesters.

- The department/pre-professional adviser is responsible for checking the General Ed. portion of the student's record as well as assisting the student in planning to complete any remaining portions of

the program.

- Students should keep a copy of their semester conversion plan in their own records until after graduation.

- Students should apply for graduation at least two semesters before they expect to complete their degrees. The department keeps a record of the approved major program for each student, and certifies at graduation time, based on information provided by the Records Office, that the student has completed an appropriate major. The Records Office certifies General Education, as usual.

- Students who are newly admitted to a major during this process must submit a major/minor application form through the department to Records and Registration as usual. The form will be semester-based.

### 2. Intended/Unsure

- Students who have indicated an intended major, but are unsure of their choice, should be advised along with those who have not selected an intended major.

- Students who are assigned to a department who are really undecided or have changed their interest to another department should go to AS 117 for reassignment.

### 3. No Major Selected. (This includes BES self-select students)

- Students without an intended major will be advised centrally under the guidance of the Faculty Director of Advising.

- Faculty advisers trained in semester conversion and professional staff from the Registrar's Office and the Admissions Office with special expertise in areas such as advising BES self-select students and transfer students who are unsure of their major will be available by appointment. Call the registrar at 255-2111.

- These advisers will evaluate the student's General Education program and prepare a plan for its completion. They will also provide information about selecting a major as appropriate.

- BES and transfer students will be advised as to how to convert their current plan of study for semesters.



## ADMISSION PROCEDURES

### High School Seniors

St. Cloud State will grant provisional admission (pending high school graduation) to eligible seniors in accredited high schools. The application plus high school transcripts to date may be submitted at any time during the senior year. St. Cloud State has a rolling admissions policy, meaning that applications are acted upon and students are notified of admission within approximately two weeks of receipt of all materials. The university begins acting on applications from seniors soon after the start of the fall term.

### High School Graduates

#### Eligibility

Applicants having graduated less than three years prior to enrollment must meet all requirements pertaining to high school seniors. Individuals having graduated from high school more than three years prior to enrollment should submit proof of a valid high school diploma or GED.

#### When

High school graduates should apply at least six weeks prior to the semester during which they wish to enter the university.

#### Procedures for Application

1. Complete an SCSU freshman application form available from the SCSU Admissions Office, St. Cloud State University, 720 Fourth Avenue South, St. Cloud, MN 56301-4498 or from high school guidance offices.
2. Mail a completed application directly to the SCSU Records and Registration Office, St. Cloud State University, 720 Fourth

Avenue South, St. Cloud, MN 56301-4498 or return it to your high school guidance office for submission with your transcripts.

3. Request that your official high school transcripts be sent directly to the SCSU Records and Registration Office.
4. Include the non-refundable \$20 application fee with your application (check or money order).
5. Arrange to have an ACT college assessment sent to SCSU by ACT.

## PERFORMANCE STANDARDS ADMISSIONS REQUIREMENTS

### Undergraduate Admission

Students applying to baccalaureate degree programs must demonstrate academic standards in two areas: performance and curricular. Performance standards refer to class rank, or similar acceptable assessment of academic achievement and/or competency levels. Curricular standards refer to levels of formal preparation in the areas of English, math, science, social studies, world language and the arts.

### Freshman Students

Students are eligible for traditional admission if they are in the upper one-half of their high school graduating class. Students also may be admitted with a composite score of 25 or above on the ACT exam, 110 or above on the PSAT, or 1,100 or above on the SAT exam.

Students who do not meet either of these requirements will be considered using a combination of high school rank, GPA, test scores, high school curriculum, and other indicators of academic potential. They may be granted admission, referred to the general studies program, deferred or denied. If your high school does not rank graduates, assessment materials submitted by your high school will be reviewed.

Students who graduated from high school within the last three years must have an ACT assessment submitted to St. Cloud State University directly from ACT prior to entering. Please arrange to have ACT send this information to SCSU once you have taken the exam.

### Curricular Preparation Standards

First time entering freshman students may establish proficiency in required curricular areas by completing high school course work as follows:

- ▼ Four years of English including composition and literature.
- ▼ Three years of social studies including one year each of U.S. history and geography
- ▼ Three years of math
- ▼ Two years of algebra and one of geometry
- ▼ Two years of the same world language
- ▼ One year in an area of the arts
- ▼ Three years of science
- ▼ One year of each of a biological and physical science and one year laboratory experience

Students graduating from schools with outcome-based instructional systems must provide information to support proficiency at levels consistent with the above. Portfolios should be accompanied by an explanation of the schools assessment methods.

Students who have not completed the curricular preparation requirements at the high school level can demonstrate that they have a sufficient background and knowledge base by successfully passing placement exams, or through a predetermined level of performance in the subject portion of the ACT. In lieu of this, a student may be admitted to St. Cloud State but required to make up course work in the deficient subject areas.

### Division of General Studies

St. Cloud State University is pleased to offer an enrollment opportunity to a selected number of students through the Division of General Studies (DGS). The program affords enrollment for students who, for a



variety of reasons, do not meet regular enrollment standards, yet show academic potential.

The program stresses practical academic adjustment to the demands of university learning. As students develop a clearer understanding of their goals through involvement in the program, they report a greater degree of personal satisfaction and academic success.

Enrollment in this program is limited. Students are encouraged to apply early to St. Cloud State University's Office of Admissions, increasing their chances of being selected for acceptance through the Division of General Studies academic program. Applications are individually reviewed. Students are selected if they are deemed to be self-motivated, with a strong desire to independently succeed academically. They also must have completed a college preparatory curriculum and be deemed able to follow written and oral directions. The review committee also considers applicants' ACT scores, high school class rank, academic progress throughout high school and perceived potential for successful completion of university course work.

Once selected for enrollment, the student must sign a contract indicating they agree to complete pre-selected courses during the freshman year.

The Division of General Studies affords students advance enrollment in several required core courses and other courses within the program the freshman year at SCSU. The courses encourage skill development and success. Students enrolled through DGS generally complete their degrees in the same amount of time as other students. The DGS courses may not be dropped or enrollment at SCSU is revoked.

DGS students are eligible for financial aid under the academic progress provisions of the Office of Scholarships and Financial Aid. All SCSU students seeking financial aid are bound by the same rules.

## PREPARATION STANDARDS FOR TRANSFER STUDENTS

Students who may be transferring to SCSU should consult the transfer specialist in the admissions office for specific information. General policies follow.

### Transfer eligibility and policy for course review of transfer credits

Applicants with 12 quarter or semester credits or more and a "C" average or better in all previous college work earned at a regionally accredited college-level institution are eligible for admission. All credits earned with a "C" or higher grade which are earned from regionally accredited college-level institutions are considered for credit transfer. The university reserves the right to deny credits in transfer which are: 1) Not consistent with the mission and charter of the granting institution, or 2) Not approved for transfer based on evaluation by this university.

Transfer credit will not be granted for remedial work. Final authority regarding course work pertaining to major programs rests with individual departments.

### Program Requirements

Many departments require a grade point average higher than a "C" for admission to specific major or minor programs. For example, students planning to enter any College of Business program must have earned a 2.65 GPA or higher in all college work. Students who do not meet this requirement will become eligible to enter a business program only after completing a minimum of 24 (non-business) credits at SCSU with a GPA of 2.65 or higher. Other programs also have minimum grade point requirements.

Some programs require completion of specific course sequences. Teacher education and electrical engineering are examples. Transfer students should check all major department requirements prior to registering for classes at SCSU.

## A.A. Degrees

A transfer student who earned an A.A. degree from a regionally accredited college, or who have completed the Minnesota Transfer Curriculum, will have met the general education requirements at St. Cloud State University. All transfer students who have not earned an associate of arts degree must meet all requirements of the SCSU general education program. Courses with grades of "D" will transfer for students who have earned an A.A., B.S., or B.A. degree or if earned as part of a completed Minnesota Transfer Curriculum. Some majors, however, require a grade of "C" or higher for a class to transfer into a major program.

## Transfer Student from Another State University

A transfer student entering St. Cloud State University from another Minnesota State University school shall be deemed as having met the general education requirement at St. Cloud State University if the student has completed the general education requirement at the sending institution.

## Technical College and R.N. Credits

Courses completed at a Minnesota Area Technical College that holds regional accreditation from North Central Association of Colleges and Schools may transfer as lower division university electives to a maximum of 16 credits. Transfer of additional credits into a major or minor is determined by the individual department at St. Cloud State University. Students may request to be examined for competency in areas taught at St. Cloud State University. If the department conducting the evaluation judges the student's knowledge to be equal to that expected in courses at St. Cloud State University, an appropriate number of credits will be allowed. Students entering St. Cloud State University who have completed a hospital diploma program in nursing and who are registered nurses are granted 32 credits toward graduation. Contact a transfer specialist at St. Cloud State University for more information.

## Transfer Student Admission

To apply as a transfer student, a student needs to have at least 12 quarter or semester credits of college-level course work and a cumulative GPA of 2.0 or better from a regionally accredited college or university. Students who have earned less than 12 credits should apply as a freshman. Students who have earned college credits only through post-secondary education option should apply using a freshman application.

## HOW TO APPLY AS A TRANSFER STUDENT AT SCSU

1. **Complete a transfer application.** Apply for admission as soon as possible. Applications are available from the SCSU Admissions Office, St. Cloud State University, 720 Fourth Avenue South, St. Cloud, MN 56301-4498. Questions concerning availability of openings should be directed to the Office of Admissions. The toll-free number is 255-2244 or 1-800-369-4260.

2. **Return the completed transfer application** along with a non-refundable \$20 application fee to the Office of Records and Registration, St. Cloud State University, 720 Fourth Avenue South, St. Cloud, MN 56301-4498.

3. **Contact each college attended** and ask them to send your official transcript directly to the Office of Records and Registration at SCSU (see address above). Transcripts are official only when recorded on transcript forms provided by the transferring institution attended and transmitted directly from the sending institution to the Office of Records and Registration at SCSU. Transcripts mailed or brought by the student cannot be used for admission.

## Transfer Admissions Appeal

A student who is denied admission may request that the application, together with her/his written appeal for reconsideration, be for-

warded to the admissions and retention committee. A transfer student who is admitted with less than a "C" average will be on academic probation for the first semester and will be required to make up the grade point deficiency before graduation.

## Minnesota General Education Transfer Agreement

Within the State of Minnesota, an array of public higher educational institutions exist, including technical colleges, community colleges, state universities and the University of Minnesota. The people of Minnesota and the legislature expect and believe that these institutions will operate in full partnership. The responsibility for making student transfers between institutions simple and efficient rests with the systems of higher education.

**Statement of Agreement.** St. Cloud State University participates fully in compliance with the terms of the Minnesota General Education Transfer Agreement. Accordingly, SCSU:

- ▼ Accepts the responsibility of making the transfer of credits from one institution to another a simpler, more predictable process of students.
- ▼ Believes that accountability for making this process work with the institutions and the higher education systems.

We agree to discharge this responsibility for transfer through a well designed network of further agreements and relationships that honor the following principles:

- ▼ All students, transfer and non-transfer, will receive comparable treatment.
- ▼ We will continue efforts to improve student's access to information about transfer.

For their part, students will be expected to plan for transfer using the information and assistance available at all institutions.

Institutions authorized by legislative mission and accreditation to offer general education and their faculty will develop coherent, educationally sound curriculum that meet the general education goals and objectives accepted by all systems.

Success of transferring students will be evaluated through collection analysis of performance data.

Faculty and administrators will have opportunities for communication across systems.

Standards of quality for general education will be insured.

We further agree at this time to implement three initiatives which will be the foundation of our transfer efforts. They are:

- The Minnesota General Education Transfer Curriculum.
- The Minnesota Standards and Procedures for Transfer.
- The Minnesota Faculty Articulation Councils.

## Transferring from SCSU

*Minnesota's public colleges and universities are working to make transfer easier. You can help if you plan ahead, ask questions, and use pathways created by transfer agreement.*

### Preparing the Transfer

If you currently are enrolled in a college or university:

1. Discuss your plans with the campus transfer specialist. Al Greig, Office of Admissions, 720 Fourth Avenue South, St. Cloud, MN 56301-4498. Phone: (320) 255-2244.
2. Call or visit your intended transfer college. You should obtain the following materials and information:

- ▼ College catalog
- ▼ Transfer brochure
- ▼ Information on admissions criteria and on materials required for admission (e.g. portfolio, transcripts, test scores). Note that some majors have limited enrollments of their own special requirements such as a higher grade point average.
- ▼ Information on financial aid (how to apply and by what date)

3. After you have reviewed these materials, make an appointment to talk with an adviser in the college or program you want to enter. Be sure to ask about course transfer and admission criteria.

If you are currently not enrolled in a college or university, you might begin by meeting with the transfer specialist or an admission officer at your intended transfer college to plan the steps you need to take.

## Understanding How Transfer of Credit Works

The receiving college or university decides what credits transfer and whether these credits meet its degree requirements. The accreditation of both your sending and your receiving institutions can affect the transfer of the credits you earn.

Institutions accept credits from courses and programs like those they offer. They look for similarity in course goals, content, and level. "Like" transfers to "like."

Not everything that transfers will help you graduate.

Baccalaureate degree programs usually count credits in three categories: general education, major/minor courses and prerequisites, and electives. The key question is, "Will your credits fulfill requirements of the degree or program you choose?"

If you change your career or major, you might not be able to complete all degree requirements within the usual number of graduation credits.

## Applying for Transfer Admission

Application for admission is always the first step in transferring. Fill out the application as early as you can prior to the deadline. Enclose the application fee.

Request that official transcripts be sent from all institutions you have attended. You might be required to provide a high school transcript or GED test scores as well.

Recheck to be certain you supplied the college or university with all the necessary paperwork. Most colleges make no decisions until all required documents are in your file.

If you have heard nothing from your intended college of transfer after one month, call to check status of your application.

After the college notifies you that you have been accepted for admission, your transcripted credits will be evaluated for transfer. A written evaluation should tell you which courses transfer and which do not. How your courses specifically meet degree requirements may not be decided until you have arrived for orientation or have chosen a major.

If you have questions about your evaluation, call the Office of Admissions and ask to speak with a credit evaluator. Ask why judgments were made about specific courses. Many concerns can be cleared up if you understand why decisions were made. If not satisfied, you can appeal. See "Your rights as a transfer student" below.

## Your Rights as a Transfer Student

As a transfer student you are entitled to:

1. A clear, understandable statement of an institution's transfer policy;
2. A fair credit review and an explanation of why credits were or were not accepted;
3. A copy of the formal appeals process;

Usual appeals steps are: a) Student fills out an appeals form.

Supplemental information you provide to reviewers such as a syllabus, course description, or reading list, can help. b) Department will review. c) Students receives, in writing, the outcome of the appeal. d) Student can appeal decision to the dean of the college that is responsible for the class; and

4. At your request, a review of your eligibility for financial aid or scholarships.

*For help with your transfer questions or problems, see your campus transfer specialist. Al Greig, Office of Admissions, 720 Fourth Avenue South, St. Cloud, MN 56301-4498. Also see "Residence requirement" on page 18 for additional requirements.*



## INTERNATIONAL STUDENT ADMISSION

### English Language Proficiency

As a condition of admission, non-native speakers of English are required to present evidence of their English proficiency (TOEFL, Michigan, or other) and will be required to take a test at SCSU before registration. If test scores so indicate, successful completion of special work in English as a second language will be required.

### Admission of International Students

Undergraduate students who are not permanent residents or citizens of the United States may be considered for admission after submitting the following:

1. A completed undergraduate application for admission (non-citizen) form available from the Office of Records and Registration;
2. A \$100 application fee\*;
3. Official educational documents/transcripts with English translation where necessary;
4. A completed confidential financial information form and supporting documentation;
5. Proof of English proficiency (TOEFL, Michigan).

\* All fees are subject to change.

## OTHER ADMISSIONS INFORMATION

### Admission of Special Students

Undergraduate students who do not plan to work on a degree at St. Cloud State University or graduate students who have not been admitted to a graduate program may enroll as special students. Undergraduate students must meet the admissions requirements of degree-seeking students. Graduate students should contact the graduate studies office or consult the Graduate Bulletin for specific regulations. Undergraduate special students are strongly urged to apply as degree candidates if they have taken or plan to take more than 20 undergraduate credits. An undergraduate special student may not register for more than eight credits for any semester or more than a cumulative total of 20 credits without permission of the assistant registrar.

### Admission of Evening and Non-Traditional Students

Undergraduate students who are particularly dependent on part-time and/or evening options may contact the Office of Continuing Studies. This office provides initial academic counseling, orientation to the university, and information on extension classes, self-paced study courses, and evaluation of prior learning.

### Deadlines for Application

Applications for admission should be submitted at least four weeks prior to the beginning of the semester of enrollment. Earlier applications are encouraged.

### ACT Requirements

In order to provide information necessary for counseling, academic advising and institutional research, all new freshman students having graduated less than three years from high school will be expected to submit an ACT Student Profile Report before registering for classes. Students who already have completed an ACT assessment before they were admitted should have their student profile report sent to the Office of Records and Registration. Others may arrange to take the ACT assessment at a regional testing center on one of the regularly scheduled testing dates publicized by ACT. High school graduates may take the test in the counseling center on campus.

### Serviceman's Opportunity College

St. Cloud State University is a Serviceman's Opportunity College (SOC) serving active military, guardsmen and reservists. As a SOC institution, the university will assist eligible military to complete degree requirements by approving enrollment at another institution to be transferred toward the completion of degree requirements, subject to meeting the institution's residency requirement. St. Cloud State University awards credit for learning acquired in military service (and for completion of basic or recruit training) at levels consistent with the ACE Guide recommendations and/or those transcripts furnished by the Community College of the Air Force, when application to a service member's program. St. Cloud State University's policy concerning the awarding of Advanced Standing credit for the completion of CLEP, DSST, ACT/PEP and USAFI, can be found in the current Serviceman's Opportunity Colleges Guide.



## ADMISSION TO GRADUATE STUDY

Students who hold baccalaureate degrees from accredited institutions and who present evidence of high-level preparation at the undergraduate level will be considered for graduate study.

An application for admission to graduate study should be directed to the graduate studies office. To be considered for admission to a master's degree program an applicant must have been granted a baccalaureate degree from an accredited college or university and have achieved at least a 2.75 grade point average over the last two years of undergraduate education (four full semesters or equivalent) and who have achieved an acceptable score on the required entrance examination. Either the GRE or GMAT examination is required of all students seeking admission to graduate degree programs.

It is recommended that such application be made as far in advance of registration as possible. A student who holds the baccalaureate degree from another college should request the registrar of that college to forward two official copies of the undergraduate transcript to the graduate studies office at the time that application is made. All applicants should arrange to complete the entrance tests prior to registering for graduate credit. Undergraduate students in their last semester of study may register for a 500-level graduate course if they have a 2.75 GPA and permission of the instructor, department chairperson, and graduate dean. This 500-level graduate course cannot be used to meet undergraduate graduation requirements. Undergraduates may not enroll in 600-level courses. For more information, contact the graduate studies office.

For complete information on graduate programs offered at St. Cloud State University, call or write: Graduate Studies, 121 Administrative Services, St. Cloud State University, 720 Fourth Avenue South, St. Cloud, MN 56301-4498, (320) 255-2113.

## REGISTRATION FOR CLASSES

New entering freshman and transfer students will receive a notice from the Office of Records and Registration indicating appropriate orientation and registration dates. Returning students should consult the class schedule which is available from the Office of Records and Registration for specific registration instructions.

### Late Registration

Late registration policy is currently under review. Information on any such policy and accompanying changes will be available in the class schedule.

### Evening and Extension Registration

Evening and extension registration instructions are in the class schedules available in the Office of Records and Registration.

## CLASS RANKING

For admission to sophomore standing, a student must have completed a minimum of 30 or more semester hours.

To achieve junior standing, a student must have completed 60 or more semester hours.

To achieve senior standing, a student must have completed 90 or more semester hours.



## COURSE NUMBERING SYSTEM

Courses numbered 001 to 099 may not be used to meet graduation requirements.

The chart indicates the general numeric range for the respective class standings:

FRESHMAN	SOPHOMORE
100 to 199	200 to 299
JUNIOR	SENIOR
300 to 399	400 to 499
400 to 499	

Some 400-level courses also carry numbers in the \*500 series, which indicates they are open to graduate students.

Courses numbered 600 to 699 are exclusively for graduate students.

\*Courses numbered 500 to 599 are double-numbered courses (with courses in the 400 to 499 series) and are open to graduate students.

## ACADEMIC STANDARDS

### Grading System

The academic achievement of students is recorded by the following system: A, excellent; B, very good; C, average; D, passing; and F, failing. The mark of X is given to students whose work at the end of a term is still in progress. Such grades will be restricted to those classes in which it has been planned by the instructor that it may reasonably take more than one term to complete all assignments, e.g., field work and internship assignments, contract-based courses, and classes which must be taken in a series before any grade is earned. An X grade must be completed within one year; if not removed within this time limit the "X" (in progress) is changed to "F" (failure) or "U" (unsatisfactory). S means satisfactory performance; U means unsatisfactory. W means withdrawn. V means the student audited the course without being evaluated. A student who registers to audit a course and then fails to meet the attendance requirement established by the instructor may be given a mark of "U". A grade of "N" is recorded when the instructor has failed to submit a grade for the student.

After the final drop date (as indicated in the university calendar), any withdrawal will be recorded as an "F" if extenuating circumstances

warrant other considerations, an appeal may be made through the Office of Records and Registration. Students who register for a course but do not attend the class and do not withdraw officially will be given a mark of "F"

When a student who is otherwise doing satisfactory work in a course is unable, for reasons beyond her/his control, to complete all course requirements during the term, that student will be given an "I" for incomplete. 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" (failure) or "U" (unsatisfactory). A grade of "N" is changed to an "F" (failure) after one semester.

## Grading Appeals Policy

See the on-line *Student Handbook*.

## Grade Points

The following system of grade points is used in all courses and curricula; a mark of A, four points per semester hour of credit; B, three points; C, two points; D, one point; F, no grade points per semester hour.

## Computing Grade Point Average

A student's grade point average is a numerical ratio of the total credits attempted and the total grade points received. The following are examples of the method of computing grade point averages:

- A. A student who completed 16 semester hours credit with 16 hours of "C" has earned 32 points. The grade point average is  $32 \div 16 = 2.0$ .
- B. A student who completes 16 semester hours of credit with eight hours of "C" and eight hours of "D" has earned 24 grade points. The grade point average is  $24 \div 16 = 1.5$ .

Courses in which the mark of "S" or "U" is given are not included in the computation of grade point average.

Only courses taken at St. Cloud State University are used in computing grade point average. When an undergraduate course is repeated, only the highest mark is used in the calculation of the grade point average.

Marks of "I" (incomplete), "X" (in progress), "V" (auditor), "W" (withdrawn), "N" (no grade submitted) do not represent credit earned and are not included in the computation of grade point average. When a mark of "F" is earned, the credit hours attempted are included in the computation of grade point average.

## Certificate of Scholastic Achievement

The vice president for academic affairs recognizes outstanding scholastic achievement by awarding certificates each semester, with the exception of summer semester, to students who earn a grade point average of 3.75 or better. A student must complete at least nine credits of ABCDF-graded courses to be eligible for the award.

## Academic Requirements

Whenever students' cumulative grade point averages fall below minimum level, they automatically will be placed "on trial" the following semester of enrollment.

Semesters in attendance	Minimum cumulative GPA
After 1 semester	1.50
2 semesters	1.75
3 or more	2.00

## Suspension Policy

Individuals placed on academic probation for failure to meet requisite cumulative GPA levels at the end of their last semester of attendance will be allowed two semesters of additional enrollment which will serve as their probationary period. Students placed on probation must earn at least a "C" average during this two-semester probationary

period. If a student on probation fails to obtain a "C" average during their probationary period, they will be dismissed for one semester. The dismissal period for all additional suspensions will be one year.

Students who successfully pass their probationary period, but whose cumulative GPA remains under 2.0, will be placed on an additional two semester probationary period. Grades of "X" or "I" will be computed as "Fs" for purposes of determining successful probationary completion. If a student's cumulative GPA is raised to a 2.0 or above at any time during the two-semester probationary period, the student will be removed from academic probation.

Students will be allowed to withdraw from any currently enrolled course any semester. Any semester with any recorded enrollment, however, even withdrawn course work will count as one of the allowable two semesters of probationary enrollment. Students on probation will be allowed to advance register for the next semester.

## Procedure for Reinstatement of Suspended Students.

Students with extenuating circumstances may appeal their first (one semester) dismissal by submitting a written appeal and supporting documentation to the Office of Academic Affairs. Students dismissed for one year as a consequence of extraordinary circumstances (e.g. extended hospitalization) may appeal by submitting a written appeal and supporting documentation (e.g. hospital records). Without extraordinary circumstances, students who are dismissed for one year must sit out a minimum of one semester, and may submit a written appeal and supporting documentation for early readmission to the Admissions and Retention Committee in AS-118. More specific information is included in student's notification of dismissal.

## Undergraduate Academic Forgiveness

To qualify for this one-time opportunity at academic forgiveness, the following are prerequisites:

1. The student may not be enrolled at St. Cloud State University for a minimum of seven consecutive years prior to the point of forgiveness.
2. Following this absence, the student must prove academic ability by completing 15 undergraduate credits within two semesters at a minimum of 2.0 grade point average.

When the above conditions are met, the student contacts the Office of Records and Registration and requests academic forgiveness. The Office of Records and Registration will make the following adjustments on the student's transcript:

1. The transcript will be separated into two sections indicating the point of forgiveness.
2. No credits will be granted for courses completed prior to the point of forgiveness. However, the grades will remain on the transcripts.
3. Calculation of the student's grade point average will not include grades received before the point of forgiveness.

Academic forgiveness will not be granted if a student has received a degree using the credits.

## Immigration and Naturalization Requirements

Regulations of the Immigration and Naturalization Service require that all international students who attend United States universities on student visas complete a minimum of twelve (12) credits in each academic semester and maintain the minimum grade point average established by the university. The St. Cloud State University standards for minimum grade point average are published in the Undergraduate and Graduate Bulletins respectively. (Policies established by individual departments for continued registration in a major program may exceed the minimum standards for satisfactory status in the university.)

During any semester in which the student fails to take and successfully complete 12 credits, an exception report must be filed with the designated school official at the Center for International Studies. Failure to comply with the requirements of the exception report will result in dismissal from the university and jeopardize the student's stay in the United States.

## Dismissal

The university reserves the right to dismiss a student whose personal qualities, general health, scholastic achievement, conduct, or other standards are such that continued enrollment would not be in the best interests of the university and the student.

## ACADEMIC POLICIES

### Application to Major Program of Study

Students who expect to become candidates for the bachelor's degree may, when their completed credits equal or exceed 15 semester hours earned at all colleges, make application for admission to a major program of study. Each department will determine eligibility requirements, admission standards, and length of validity of application. Students are encouraged to declare the major as early as possible.

Students who have completed 80 credits at St. Cloud State University and have not declared and/or been admitted to a major or a B.E.S. degree program will not be allowed to pre-register.

Transfer students who completed 45 or more credits at another institution(s) before admission to SCSU, have completed 35 or more credits at SCSU, and have not declared and/or been admitted to a major or B.E.S. degree program, will not be allowed to pre-register. Exceptions to this policy will be made by the department housing the student's intended major.

To graduate after the valid application time, a student may be required to meet new major program requirements. If necessary, contact the college dean for extension of time. Majors and minors are listed in the Colleges section of the bulletin (pages 39-49), and in each department's program description.

### Assessment

The university's effort to improve its academic programs, student learning and student services includes periodic measurement of student perception and intellectual/personal growth. All students are expected to participate in this assessment program. It may include examinations in general education, intellectual skills, and the major/minor fields of study. It also may include opinion surveys regarding specific services and/or the total university experience. The information obtained through the assessment program measures student competency, academic achievement and satisfaction and is used to improve the quality of the teaching and learning experience for current and future students.

### Auditing of Classes

A student who wishes to attend the class sessions of a course but who does not wish to receive credit for it must register as an auditor. The same registration procedure is followed and the same fees charged as for credit courses. Auditors must attend class but the taking of quizzes and examinations is optional. Auditors who fail to meet the attendance requirements may receive a mark of "U" (unsatisfactory) rather than a mark of "V" (auditor). Courses audited cannot be counted toward graduation requirements. Courses audited are counted as part of the student load. **The audit option must be designated at the time of registration for the course.**

### Cancellation of Classes

Classes or sections of classes which do not have sufficient enrollment may be canceled at any time.

### Change of Class

Change of class policy is currently under review. Information on any policies will be available in the class schedule. A failing mark will be given for courses dropped after the deadline shown in the university academic calendar, except as noted in the "Grading System" section of this bulletin.

### Class Attendance

Upon enrollment in a course the student becomes accountable for

all the requirements of the course. It is the practice for the student to give the instructor, in advance if possible, the reason for the absence. Members of the faculty are asked to report to the student life and development office the name of any student whose repeated absence is impairing her/his work.

### Correspondence, Extension, Workshop or Field Trip Credit

Correspondence credit to be applied toward the baccalaureate degree are accepted in transfer only from institutions holding regional accreditation.

Extension credit may be transferred toward graduation only from those institutions approved to give extension courses.

No more than 6 semester hours credit in either workshop or field trips (tours) may be applied to a major and no more than 3 semester hours of such credit may be applied to a minor. No more than a total of 12 semester hours of workshop and field trip credits may be applied on any curriculum. These 12 hours cannot be earned exclusively in either workshop or field trips.

### Forgeries

The university considers forged signatures on official documents to be a very serious matter. A student who forges a signature on an official university document will have nullified the document and may face disciplinary action as determined by the university judicial committee.

### Prerequisites

A student who fails in the first course of a sequence cannot take the following courses in that sequence until the failure has been made up. Prerequisites for a course, as stated in this bulletin, must be met before the course is taken unless permission to omit the prerequisite is obtained from the department chairperson concerned.

### Repeating Courses for Additional Credit

Students may enroll in some courses more than once. Courses in this category are specified in the course description section in this bulletin. The maximum number of credits allowable is stated in the course description. For each enrollment the student receives credit hours and a grade.

### Repeating Courses for Improvement of Grade

Students may repeat courses at their own discretion in an effort to improve grades. In such cases, no additional credit will be allowed. The highest grade earned will be the student's official grade for the course. No courses or grades will be removed from the transcript.

### Residence Requirement

Residence credit is earned on the campus of St. Cloud State University or in its approved off-campus programs. To be eligible for graduation under a four-year curriculum a student must have been in residence at least two semesters and must have earned at least 30 semester hours of credit in residence. However, some departments may require more than 30 semester hours of credit in residence. To be eligible for graduation under a two-year curriculum, a student must have been in residence at least one semester and at least 20 credits must have been earned at St. Cloud State University. Six credits must be earned in residence during the semester immediately preceding graduation. The registrar is authorized to permit a student who lacks credits for graduation, and who has a good scholastic record, to complete her/his degree requirements in a manner to be prescribed by the vice president for academic affairs.

Transfer students are required to take at least 9 semester hours in their major field and 6 semester hours in their minor fields in residence unless waived by the department.

Programs evaluated by the American Council on Education for college credit will be accepted by St. Cloud State University with a maximum of 64 credits.

## Student Load

An undergraduate student enrolled for 12 credits or more is considered a full-time student. The recommended normal load is 15-16 credits (six credits in a summer term). The maximum allowable load without special permission is 18 credits (9 credits in a summer term). Students who wish to enroll for more than the established maximum must secure permission from their college dean. Students who have not been admitted to a major program of study must secure permission from the associate vice president for academic affairs. A student's load includes the total of all courses carried, including correspondence, extension, and any other college courses taken concurrently with those at St. Cloud State University.

## Withdrawal

Contact the Office of Records and Registration for instructions on procedure. See the university's academic calendar in this bulletin or semester class schedule for deadline for withdrawing from a course.

The policy on refund of tuition and fees may be found in the financial information section of this bulletin and/or the semester class schedule.

## ACADEMIC CREDIT OPTIONS

### Advanced Placement

St. Cloud State University is a formal participant in the advanced placement program administered by the College Entrance Examination Board. Credit may be awarded to any enrolled student who provides evidence of earning a score of three or higher on an advanced placement examination. Additional information may be secured from the Office of Records and Registration.

### Arranged Courses

A student who cannot take a regular course as scheduled for good reason may apply to take it by arrangement. Permission of the instructor of the course and the department chairperson must be obtained on the application form available in the Office of Records and Registration or from the department chairperson.

### College Level Examination Program

The university grants credit for scores at the 50th percentile or higher on each of the following general examinations: mathematics, humanities, natural science, and social science-history. Credits are granted for scores at the 50th percentile or higher on each of the following subject examinations: American government, American history, general psychology, introductory business management, introductory business law, introductory marketing, introductory sociology, biology, western civilization and human growth and development. Credits for calculus are subject to department approval. Contact the Office of Student Life and Development, 106 Atwood Memorial Center (255-3111) for testing arrangements.

### Common Market Program—Student Exchange

The Common Market Student Exchange is designed to encourage students to seek enrichment in their education by considering the offerings of the other state universities. The program provides for mobility that allows students to take advantage of curriculum and program specialties and the different intellectual and social climates at other state universities.

A student is eligible to participate in the Common Market Student Exchange if he/she has a minimum grade point average of 2.0 and has completed at least 30 semester hour credits at the home state university. All credits earned under the program are considered "residence credits" at the home university and will be entered as such on the student's record.

Students may enroll at any other Minnesota state university for one semester. Attendance is limited to three other state universities—one semester each.

Interested students should contact the common market director in the Office of Records and Registration. The director will assist with course evaluations, housing, financial aid, as well as have available catalogs, class schedules and applications for other universities.

### Credit-by-Examination

A student may earn a maximum of 32 semester hours of credit by examination. Entering freshman students are eligible to take examinations for credit if they have a "B" average in high school in the area to be examined and for all high school work. Requests for exceptions will be considered when test scores or other evidence suggests greater ability than the high school record indicates.

All other students who meet the qualifications listed below may apply to take credit examinations:

1. The student must have a "B" average for all university work taken in the subject area of the examination.
2. A student should have a "C" average for all university work taken at St. Cloud State University. A student must have completed at least one semester and at least 15 credits in order to apply to take credit examinations.
3. Students may not take examinations at a level below that of courses already taken in an area. For example, a student who has completed a 200-level course in a specific subject area may not take an examination for credit in a 100-level course in the same area without the special approval of the dean. Exceptions may be made in the case of transfer students who, in the judgment of the chairperson of the department involved, have not had previous opportunity to cover the material in the 100-level course.
4. Students having completed 75 or more semester hours may not receive credit by examination in courses at the 100- or 200-level. Departments may recommend exceptions to this policy.
5. A student may not take an examination in a course more than once.

Credit received by examination counts toward residence, general education, major and minor requirements. Examinations are graded on a satisfactory/unsatisfactory basis. Only "satisfactory" grades are entered on the student's permanent record.

Examinations for credit may be requested in any course. The final authority for determining whether a student may take a course by examination rests with the department chairperson involved.

Students are not required to take the examination in the same semester in which they apply. For example, students are encouraged to apply in the spring semester for examinations to be taken in the fall, thus permitting the use of summer for reading and preparation.

Application forms are available in the Office of Records and Registration, 117 Administrative Services Bldg., 720 Fourth Avenue South, St. Cloud, MN 56301-4498.

### Experimental Courses

The university offers a number of new courses on an experimental basis each semester which are not listed in this bulletin. These courses are listed in semester class schedules. Course descriptions are available in the Office of Academic Affairs and in the appropriate department office.

### Independent Study

Recognizing the diversity of interest, preparation and talent among its students, St. Cloud State University desires to individualize education as much as possible. This program permits a student to earn from one to four hours of credit for individual study in an area or topic not offered in a regular course. A maximum of 30 credits of independent study (199-499), arranged courses, and/or internships for an undergraduate degree is allowed.

In working out the arrangements for this special study, the student should consult with and receive the approval of her/his adviser, the instructor with whom the work will be done, and the chairperson



of the department. Application forms are available in the Office of Records and Registration, 117 Administrative Services Building.

### International Baccalaureate (IB)

The International Baccalaureate (IB) program is an internationally recognized program through which secondary students complete a comprehensive curriculum of rigorous study and demonstrate performance on IB examinations. The examination for the diploma covers six subjects, three or four of which must be at the higher level and others at the subsidiary level. Students may present a full IB diploma or a certificate recognizing specific higher level or subsidiary level test scores.

#### International Baccalaureate Policy

1. Students who complete an IB diploma with a score of 30 or higher shall be offered 8 semester credits for each of three higher level examinations, plus 2 semester credits for each of the subsidiary exams, for a total of 30 semester credits.
2. Credits shall be transcribed according to the same rules as those used for Advanced Placement (AP) exams. Where a test covers material that is substantially similar to an existing university course, credit for the course shall be awarded. Where a test covers material that is deemed to be college level but is not substantially similar to an existing course, elective credits shall be awarded in appropriate departments.
3. No credit shall be given for subsidiary level exams other than those included as part of the IB diploma as described above, but students may receive credits as above for any higher level exams with a score of 5 or higher.

Additional information may be obtained from the Office of Records and Registration, 118 Administrative Services Building.

### Internships

An internship is a one-semester, full- or part-time work experience for university credit. The program offers students a supplement to classroom learning through a variety of internship positions in local, state, and federal government agencies, public service organizations and private business. Information about internship opportunities and policies is available from the offices of the college deans or department chairpersons.

### Tri-College Registration Program

St. Cloud State University, the College of St. Benedict and St. John's University have entered into a cooperative agreement to encourage registration for courses on any of the three campuses by traditional full-time undergraduate students. The purpose of this agreement is to encourage students from one institution to take courses at the other institutions and thereby broaden their educational opportunities. The program is restricted to undergraduate students and excludes summer school and extension courses. Students will register and pay fees at their home institution while attending classes at the host institution. Additional information including special registration forms, class schedules, and bulletins may be obtained in the Office of Records and Registration.

## GRADUATION

Under the authority of the Minnesota State Colleges and Universities Board, St. Cloud State University awards the Specialist degree, the degrees of Master of Science, Master of Arts, Master of Business Administration, Bachelor of Science, Bachelor of Arts, Bachelor of Elective Studies, Bachelor of Fine Arts, Bachelor of Music, Associate in Arts, and Associate in Elective Studies. A minimum total of 120 semester hours of credit is required for any four-year degree. A minimum total of 60 semester hours of credit is required for any two-year degree. Candidates for a Bachelor of Science degree in an education program must meet the following academic standards in order to qualify for graduation:

1. General scholarship 2.50.
2. Admission to teacher education.

### 3. Successful completion of student teaching.

Candidates for non-teaching degrees must meet the following academic standards to qualify for graduation:

1. General scholarship 2.00.
2. Major field 2.00 or greater as determined by each department.
3. Minor field 2.00.

All baccalaureate candidates must have completed a minimum of 45 credits of coursework at the upper division (300-400) level.

Application for graduation forms are obtained in the Office of Records and Registration. Check the university academic calendar in this bulletin for the application for graduation deadline for any specific semester.

Any student completing a major under two of the following degree designations, (B.A., B.S., B.F.A., or B.Mus.) may elect the degree designation of her/his choice. Majors or minors earned under the B.E.S. program may only be applied to a B.E.S. degree. No student will be awarded more than one degree at the end of any given semester.

Students returning for additional undergraduate work after completing an undergraduate degree at St. Cloud State University will be required to complete a minimum of 30 credits at St. Cloud State University to earn an additional (different) degree.

All 30 credits must be earned in residence unless the department requests that, for good reason, this requirement be waived. If less than 30 credits are earned, the major will be recorded but no new diploma will be issued or degree designated.

Students returning for additional undergraduate credit may not receive two diplomas for the same degree. The additional major will be listed on the permanent record. The permanent record will list the student's major(s), minor(s), and area(s) of emphasis within the major, if any.

Graduation for a particular semester will be "final" seven working days after the end of the semester.

### Graduation with Honors

Students who complete an associate or baccalaureate degree program will be graduated with honors in accord with the following:

**Cum Laude**—Awarded to graduates who have achieved a grade point average of at least 3.250 but less than 3.500.

**Magna Cum Laude**—Awarded to graduates who have achieved a grade point average of at least 3.500 but less than 3.750.

**Summa Cum Laude**—Awarded to graduates who have achieved a grade point average of at least 3.750.

Only course work completed at St. Cloud State University will be used to determine academic honors. To be eligible for consideration, graduates of associate degree programs must have been in residence for at least 1 semester and have completed a minimum of 30 semester credits at St. Cloud State University graded A-F; graduates of baccalaureate degree programs must have been in residence at least two semesters and have completed a minimum of 30 credits at St. Cloud State University graded A-F and completed a minimum of 45 credits of course work at the upper division (300-400). No rounding up of grade point averages will be computed.

## UNDERGRADUATE PROGRAMS

### Baccalaureate degrees (B.A., B.S., B.F.A., B.Mus., B.E.S.)

Baccalaureate degrees are considered to be the standard college degree. St. Cloud State University requires the completion of 120 semester hour credits. Credits must be earned in general education (liberal arts and sciences portion of a degree), in a major and/or minor, and in university electives. St. Cloud offers baccalaureate degrees in Arts (B.A.), Sciences (B.S.), Fine Arts (B.F.A.), Music (B.Mus.), and Elective Studies (B.E.S.)

Although a student normally can finish a baccalaureate degree in four years, a few programs offered by the university may require the completion of more than 120 semester credits. Entering freshman stu-



dents are encouraged to seek academic advice early regarding specific requirements in order to plan their program most efficiently.

### Bachelor of Arts

The Bachelor of Arts (B.A.) degree programs are designed for those students who wish to pursue their studies in the liberal arts tradition. The degree is awarded upon the satisfactory completion of a minimum of 120 semester credits, which must include the general education requirements and the requirements of a field of concentration. The field of concentration requirements may be met by one of the following:

- A. 45 credit major
- B. 36 credit major plus one year in a single foreign language
- C. 51 credit major/minor combination (36 credit major plus a 15 credit minor)

Courses intended specifically to meet teacher licensure requirements may not be counted toward the degree unless approved by the dean of college in which the student has selected her/his field of concentration.

### Bachelor of Elective Studies

The Bachelor of Elective Studies (B.E.S.) degree is for those students who wish to develop their own programs of study. B.E.S. students must complete the general education program. See B.E.S. adviser for details. Requirements for the degree are:

1. Completion of a minimum of 120 credits with a 2.00 "C" average.
2. At least 45 credits in upper-division (300-400) courses.
3. No more than 60 credits can be counted in any one discipline.
4. A maximum of 6 internship credits may be used as part of the 45 upper-division course work requirement.
5. A major or minor program is not required, but strongly encouraged. Students may complete majors and minors in those departments which indicated B.E.S. programs are available. See individual departmental listings.
6. Meet the residence requirement of St. Cloud State University as outlined in this bulletin.

Students who meet the admission requirements for St. Cloud State University may apply upon admittance. Students who currently are enrolled must have a 2.0 (C) average to be admitted to the program. To be accepted into this degree option students must formally complete

a "major program plan" as well as a "program proposal form" which are designed to describe the student's individual educational objectives. Majors or minors earned under the B.E.S. program may be applied to a B.E.S. degree. Requests for admission are received by the program director, Center for Continuing Studies.

### Bachelor of Fine Arts

The Bachelor of Fine Arts (B.F.A.) degree is designed for those students whose primary interest is in obtaining depth, structure, and professionalism in a particular area of the visual arts. 78 credits in art are required. Additional details of the program are listed in the art department offerings.

### Bachelor of Music

The Bachelor of Music (B.Mus.) degree is for those students whose primary interest is musical performance; 80-83 credits in music are required. Students are required to

study voice or their major instrument each semester and to give recitals at the end of both the junior and senior years. Additional details of the program are listed in the music department offerings.

### Bachelor of Science

The Bachelor of Science (B.S.) degree is awarded to those students who successfully complete a professional four-year program of a minimum of 120 credits including general education requirements and the requirements of a field of concentration. Students seeking a teaching certificate also must complete the professional education requirements. Students in the College of Business must complete the business core. Requirements for specific programs can be found under departmental headings in this bulletin.

### Associate degrees (A.E.S., and A.A.)

#### Associate in Elective Studies (A.E.S.)

The Associate in Elective Studies degree programs provide students an opportunity to design their own two year programs of study. It requires the completion of 60 semester hour credits, with no more than 30 credits in one discipline. The program is administered by Center for Continuing Studies.

#### Associate in Arts (A.A.)

The Associate in Arts degree programs are intended to provide a broad liberal arts and sciences background. A.A. programs require completion of the general education program and additional credits to total at least 60 semester hour credits. The A.A. program may be used as the foundation for a baccalaureate degree and is administered by continuing studies. Students receiving an A.A. degree must complete at least 30 additional credits at SCSU to receive a baccalaureate degree.

### Certificate Program

A certificate is awarded to those students who satisfactorily complete a prescribed course of study. Specific program requirements are given under departmental headings.

## PRE-PROFESSIONAL PROGRAMS

### Degree Programs

SCSU offers a number of programs which prepare students for post graduate work in professional areas. Preparation requires a baccalaureate degree. Some, such as pre-medicine are very specific; others are more liberal arts oriented, such as pre-law. Students should meet with advisers who will assist them in selecting the program best suited to their graduate school and career goals.

Undergraduate preparation and advising is available for the following:

- Chiropractic
- Dentistry
- Law
- Medicine
- Optometry
- Physical therapy
- Physician assistant
- Podiatry
- Veterinary

### Non-degree programs

In some instances students may elect to begin study in areas for which SCSU has no degree program. Preparation for transfer then is required. Some areas of engineering, pharmacy, nursing, etc., fall into this category. Students should be aware of requirements selected by the institution to which they will transfer, and should meet with an academic adviser well versed in these requirements.

Advising and specific course recommendations are available in the following areas:

- Agriculture
- Dental hygiene
- Engineering programs not available at SCSU
- Forestry
- Home economics
- Horticulture
- Medical record administration
- Mortuary science
- Nursing
- Occupational therapy
- Pharmacy
- Respiratory care

### Pre-Agriculture

Adviser David DeGroote/275 Mathematics and Science Center/255-2288

Schools of agriculture have many and varied curricula. The following list should be followed until the student has selected a particular program within the field of agriculture: ENGL 191; SPC 211; BIOL 151, 152, 212; CHEM 210, 211; MATH 115; PHYS 231, 232. Contact the adviser for more detailed description of the courses and requirements.

### Pre-Chiropractic

Adviser Timothy Schuh/224 Mathematics and Science Center/654-5433

Students should consult the pre-chiropractic adviser during their first semester at St. Cloud State University. It is advisable that students get a baccalaureate degree; the biomedical science major is recommended.

### Pre-Dental Hygiene

Adviser Biology Department/262 Mathematics and Science Center/255-2039

On completion of this program, students will have earned a degree as Associate of applied science in Dental Hygiene from St. Cloud Technical College. Those interested should contact the biology adviser or directly communicate with St. Cloud Technical College for special requirements.

### Pre-Dentistry

Adviser Gordon D. Schrank/228 Mathematics and Science Center/255-3047

Courses specified for admission at the University of Minnesota include: English: 2 semesters; speech: 1 semester; biology: 2 semesters; physics: 2 semesters; inorganic and organic chemistry: 2 semesters each; math: college algebra or pre-calculus, computer science or statistics; applied human psychology: 1 semester. Suggested courses to fulfill those requirements include: BIOL 151, 152, 262, 264; CHEM 210, 211, 240, 241; ENGL 184, 191; MATH 112 or 115; PHYS 231, 232; PSY 115. Courses such as SPC 192, ART (100-level courses in beginning drawing and studio sculpture) are highly recommended. Requirements change frequently and interested students should check with the adviser for current information.

### Pre-Engineering

Advisers Charles Eckroth/MS 309/255-2778

Michael Garrity/MS 316/255-3274

Sneh Kalia/MS 317/255-4285

Arnold Lesikar/MS 314/255-3120

### Pre-Electrical Engineering

Advisers:

Peter George/ECC 208/255-4921

J.M. Heneghan/ECC 205/255-4845

Sura Lekhakul/ECC 209/255-2997

Aswartha Narayana/ECC 210/255-4182

James Rankin/ECC 215/255-4182

Yi Zheng/ECC 207/255-3926

### Pre-Manufacturing Engineering

Advisers:

Steven Covey/ECC 114A/654-5161

Warren Yu/ECC 114B/255-3964

Youpeng Zong/ECC 114C/255-3843

The course of study for pre-engineering will vary, depending upon the choice of engineering field. Interested students should contact the adviser for detailed information on the program. Entering freshman students should start the MATH 241 sequence in their first semester and the PHYS 234 sequence in their second semester.

It is strongly recommended that the pre-engineering student meet periodically with the adviser.

### Pre-Forestry

Adviser David DeGroote/275 Mathematics and Science Center/255-4736

BIOL 151, 152, 212, 214; CHEM 210, 211; ESCI 220; MATH 115, 211 or 221; STAT 239; PHYS 231, 232; ENGL 191; ECON 205, 206; CSCI 169; SPC 211; SOC 160. Select 8 credits from: ART, ENGL, MUSM, MUSP, THFS. Some of the University of Minnesota forestry programs require a summer session between either the freshman and sophomore or between the sophomore and junior years. Since forestry programs vary, students should consult the pre-forestry adviser during the first semester at St. Cloud State University.

### Pre-Home Economics

Adviser Janet Woodard/268 Mathematics and Science Center/255-3490

Students may take some work at St. Cloud State University which will count toward various programs in home economics at the University of Minnesota. Recommended course work will vary with program selected. See adviser for specific requirements.

### Pre-Horticulture

Adviser David DeGroote/275 Mathematics and Science Center/255-4736

St. Cloud State University does not offer a horticulture program as such. Students who select from the following courses should have few problems transferring during or at the end of their second year to a



school with a major in horticulture: ENGL 191; SPC 211; MATH 115; CHEM 210, 211, 240, 241 (270, 271 may be substituted for 240, 241); PHYS 231, 232; ESCI 220; ECON 205 or 206; BIOL 151, 152, 212, 330, 447. Since horticulture curricula vary, students should, during their first year at St. Cloud State University, contact the school to which they wish to transfer in order to plan their second year's program.

### Pre-Law

Advisers John Kilkelly/317 Brown Hall/255-4200  
Steve Frank/319 Brown Hall/255-4131

Pre-law is not a major; students should plan to complete a bachelor's degree before law school and may major in a variety of fields. Law schools prefer a broadly based undergraduate degree which emphasizes the liberal arts. New students might consider not declaring a major and write pre-law on the appropriate forms. You will then be assigned to the SCSU pre-law adviser who will work with you to find an appropriate major. Students are strongly urged to continuously communicate with the pre-law adviser.

### Pre-Medical Record Administration

Adviser Janet Woodard/268 Mathematics and Science Center/  
255-3490

BIOL 151, 264, 266; CHEM 210; ENGL 184, 191; MATH 115; CSCI 169; PE activity (2 Cr.); PSY 115; APSY 262; SOC 160; SPC 192.

### Pre-Medicine

Adviser Gordon D. Schrank/228 Mathematics and Science Center/255-3047

Pre-medicine is not a major; students should plan to complete a bachelor's degree before entering medical school and may elect to major in a variety of fields. Most medical schools require that certain basic courses be completed before entering medical school. These include one year of biology, inorganic and organic chemistry, one year of physics, mathematics through calculus, 6 semester credits of English composition as well as courses in the humanities and behavioral sciences. Examples of science courses would be BIOL 151, 152, 262, 264; CHEM 210, 211, 270, 271; and PHYS 231, 232. At least one semester of biochemistry is now required by some schools. Some students who do not have any background in one of the science areas may elect to take general education courses before beginning the 200 level courses that do meet the medical school requirements for admission. The behavioral science requirement is usually 8 semester credits in areas such as psychology, sociology, or anthropology. The basic requirement for humanities is also 8 semester credits. The required courses may vary from year to year and students are strongly urged to meet with the adviser and consult the Pre-Med Handbook prepared by the pre-medical advisory committee.

### Pre-Mortuary Science

Adviser Timothy Schuh/224 Mathematics and Science Center/  
654-5433

The pre-mortuary program is that suggested by the University of Minnesota, where most students transfer after two years at SCSU. Credits taken here apply toward the B.S. degree in mortuary science at the University of Minnesota.

Pre-professional requirements include at least one course in each of the areas of English composition, computer science, general biology, human anatomy, inorganic chemistry (with laboratory), introduction to sociology, college algebra, speech, microbiology, general psychology, history and accounting plus sufficient electives to total the equivalent of 90 semester credits. Additional requirements include diversified core, designated themes, and writing intensive courses. Contact your adviser for a more detailed description of the courses.

### Pre-Nursing

Advisers Jan Anderson/277 Mathematics and Science Center/255-4149

Biology Department/262 Mathematics and Science Center/255-2039

The pre-nursing program consists of two years of science and general education courses designed to match the requirements of the Bachelor's of Science nursing programs at the College of St. Benedict and Mankato State University. One year of science and general education will meet the North Hennepin Community College requirements for the Associate Degree program. In general, students should take BIOL 151, 202, 204, 206; CHEM 210, 211 (U of M requires CHEM 240, 241, or 270, 271); ENGL 191; PSY 115; SOC 160. There are additional requirements which vary with the school to which the student plans to transfer. Contact the pre-nursing adviser for a complete list of requirements at a particular nursing school. Transfer information sheets are available in the biology department office, MS-262.

### Pre-Occupational Therapy

Adviser David Mork/226 Mathematics and Science Center/255-3035

Professional programs in occupational therapy exist at both the Master's level and the Bachelor's level. Course choice at SCSU will depend somewhat on the professional program desired.

Pre-professional course work typically includes courses in human anatomy, human physiology, statistics, medical terminology, general parasitology, abnormal psychology, lifespan developmental psychology and studio/applied arts.

Acceptance into the professional programs is competitive with the grade point average as the major factor; students also must have the experience in the area. For further details, please contact the adviser.



### Pre-Optometry

Adviser A.I. Musah/274 Mathematics and Science Center/654-5110

Two years of college is the minimum required for admission to optometry school. However, the trend is for most entering students to have a four-year bachelor's degree in biology, chemistry or physics. The following courses should be included: BIOL 151, 152, 262, 264, 362, 366, 478; CHEM 210, 240, 241; ENGL 191; MATH 115, 211, 212; STAT 239; PHYS 231, 232; PSY 115. Electives should include 8-12 credits in the social sciences. CHEM 270, 271 may be substituted for CHEM 240, 241 and MATH 221, 222 may be preferred at some schools over MATH 211, 212. Applicants should contact the schools they are interested in for details on course requirements.

Students should apply to take the optometry college admission test during the year before they apply to an optometry school.

### Pre-Pharmacy

Advisers Nathan Winter/MS 371/255-2052  
Tamara Leenay/MS 363/255-3948

Students must complete at least two years of college before applying to a pharmacy program.

The courses listed below comprise a typical recommended two-year program. Different colleges of pharmacy have slightly different pre-pharmacy requirements. Students should consult early with the advisers for specific requirements.

BIOL 151, 362, 366; CHEM 210, 211, 270, 271; ENGL 191; MATH 221, 222; PHYS 231, 232; SPC 192.

In addition, 30 credits of general education courses are required.

### Pre-Physical Therapy

Advisers: David Mork/Mathematics and Science Center 226/255-3035 and Timothy Schuh/Mathematics and Science Center 224/654-5433

Pre-physical therapy is not a major; students should plan to complete a bachelor's degree before applying to a university which offers a master's degree in physical therapy. Many students elect to complete a Biomedical Science degree at SCSU with additional pre-professional courses as required for admission by the graduate programs in Physical Therapy. For specific details, please contact the adviser.

### Pre-Physician Assistant

Advisers Janet Woodward/268 Mathematics and Science Center/255-3490

Judith Torrence/273 Mathematics and Science Center/255-3130

Pre-physician assistant is not a major at SCSU; however, students should plan to complete a bachelor's degree before entering a university which offers a master's degree. Two years of college is the minimum required for admission to physician assistant programs that offer a bachelor's degree. In preparation for any physician assistant program the following courses should be included: BIOL 151, 152, 262, 264, 266, 366, 478; CHEM 210, 211, 240, 241; MATH 221; STAT 239; PSY 115, 490. English composition skills and courses in the humanities and behavioral sciences are needed. Health care experience with some direct patient contact is required for most programs. Contact the adviser for more detailed description of the course and requirements.

### Pre-Podiatry

Adviser A.I. Musah/274 Mathematics and Science Center/654-5110

Two years of college is the minimum required for admission to podiatry school. However, the trend is for most entering students to have a four-year bachelor's degree in biology, chemistry or physics. The following courses should be included: BIOL 151, 152, 262, 264, 362, 366, 478; CHEM 210, 240, 241; ENGL 191; MATH 115, 211, 212; STAT 239; PHYS 231, 232; PSY 115. Electives should include 8-12 credits in the social sciences. CHEM 270, 271 may be substituted for



CHEM 240, 241 and MATH 221, 222 may be preferred at some schools over MATH 211, 212. Applicants should contact the schools they are interested in for details on course requirements.

Students should apply to take the podiatry college admission test during the year before they apply to a podiatry school.

### Pre-Respiratory Care

Adviser Biology Department/262 Mathematics and Science Center/255-2039

This program is offered by the Northwest Technical College in cooperation with SCSU. Students may opt for either the associate degree level or the diploma/certified level respiratory care practitioner. Those interested should contact the biology adviser for current information.

### Pre-Veterinary Medicine

Adviser Ralph Gundersen/208 Brown Hall/255-4136

BIOL 151, 152, 206, 262, 264; MATH 196 or 221; CHEM 210, 211, 240, 241; PHYS 231, 232; ENGL 191; ECON 205 or 206; SPC 192; 6 credits from ANTH, ECON, GEOG, HIST, POL, PSY, SOC, SSCI; 6 credits from ART, MUSM, MUSP, THFS, literature courses in AMST, ENGL, FORL. Recommended courses include CHEM 480. Additional courses to bring total to 68 credits.

## COSTS

### Tuition\*

(Effective fall semester, 1998) Costs subject to change.

Following is the schedule of tuition charges for the Minnesota State Universities:

#### Undergraduate:

Minnesota on-campus courses residents	\$80.40 per credit
Non-residents	\$181.10 per credit
Minnesota residents off-campus courses	\$97.40 per credit

#### Graduate:

Residents	\$123.80 per credit
Non-residents	\$196.20 per credit

### Reciprocity Agreements

Reciprocal agreements regarding tuition have been reached with North Dakota, South Dakota and Wisconsin. Residents of those states are eligible to pay home-state tuition rates when attending St. Cloud State University. To be eligible, students must complete a reciprocity application and that application must be approved by their home state. Reciprocity applications are available at the Office of Records and Registration and should be completed at the time the student receives notice of acceptance to St. Cloud State University.

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

### Schedule Change Fee\*

When courses are changed after the fifth day of academic year classes, a processing fee will be charged for each program change according to the following schedule:

Sixth through 10th day of the quarter = \$10

After 10th day of the quarter = \$15

### Late Registration and Late Payment Fee\*

State university board regulations stipulate that students are responsible for paying tuition and fees for those courses and credits for which they are enrolled at 8 a.m. the fourth day of classes. Students may, with permission, register within a period no longer than ten class days after a regular semester begins or four class days after a summer term begins. For a regular semester the late registration payment fee is as follows:

Sixth through 10th day of semester = \$25

After 10th day of semester = \$35

#### Summer term the late registration fee:

Second day of session = \$10

Third day of session = \$15

Fourth and fifth day of session = \$25

After fifth day = \$35

Students may register for off-campus courses no later than the second class meeting. Late registration fees do not apply to off-campus courses.

### Fees\*

Student activity fees, MSUSA, and computer fees are assessed to students on the basis of \$17.26 per credit hour, up to 12 credit hours, and \$1.76 per credit hour after 12 credits.

**Exceptions:** Fees will not be charged for:

1. Courses offered by Continuing Studies or other off-campus courses as defined by the Minnesota State Colleges and Universities (MnSCU) Board.
2. Courses numbered 495, 595 or 695 (workshops).
3. Courses numbered 488 or 588 (television).
4. Courses numbered 410 or 510 (tours).

### 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.

### Fee Payment

Registration is not considered completed until all tuition and fees have been paid. Failure to pay tuition and fees for scheduled courses by applicable due dates result in cancellation of classes. Payments made by check are accepted subject to collection. Any dishonored check is considered as non-payment and results in immediate cancellation of class schedules.

A fee is charged students who desire to alter their programs after the fifth class day. See schedule change fee above. All fees and regulations are subject to change by action of the MnSCU Board.

### Summary of Expenses (Per semester)

Board and room per semester, residence halls	**\$1,533.00
Tuition per semester (16 credit hours, resident)	1086.40
Fees per semester (16 credit hours)	214.16
Books (approximately)	<u>300.00</u>
<b>TOTAL (average student)</b>	<b>\$3133.56</b>

\*\*Double occupancy—21 meal plan

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

## REFUND OF TUITION AND FEES

### On-Campus Classes

State University Board regulations stipulate students are responsible for paying tuition and fees for those courses and credits for which they are enrolled at 4:30 p.m. on the third day of the semester. To receive a refund for the dropped portion of their class schedule, students must drop classes no later than the third day of the semester. After the third day of the semester, unless students' class schedules are reduced by the university, no refund will be issued for dropped courses.

Students withdrawing completely from the university must process a withdrawal form in the Office of Records and Registration, 117 Administrative Services Bldg. The following refund schedule applies to total withdrawal from classes:

Day of the semester	Refund
first through third	100 percent
fourth through eighth	75 percent
ninth through 13th	50 percent
14th through 18th	25 percent
Thereafter no refund will be given.	

**Refunds for students who receive financial aid will be deposited into the appropriate financial aid account.**

### Evening and Extension Classes

If a student is registered only for evening classes and drops one of those courses before its second class meeting, he/she will receive a full (100 percent) refund of their tuition and fees for that course. MnSCU Board regulations state that if there is notification of total withdrawal from classes prior to the second class meeting, 100 percent will be refunded; prior to the third class meeting, 75 percent; prior to the fourth class meeting, 50 percent; prior to the fifth class meeting, 25 percent and thereafter no refund will be given. If a student must withdraw, he/she should immediately contact the Office of Records and Registration, St. Cloud State University, 720 Fourth Avenue South, St. Cloud, Minnesota 56301-4498. Phone: (320) 255-2111.



### Short Courses

No refunds will be made for short courses (duration of less than five weeks of a semester or less than two and one-half of a summer session) after the course has begun.

### Amounts of One Dollar or Less

Amounts of one dollar or less will not be refunded.

### Appeal Procedure

An appeal procedure has been established for those students whose request for a refund of tuition and fees has been denied. Students wishing to appeal should contact the business office for further information.

### Identification Card and Fee Statement

After payment of fees, each student must carry at all times a valid ID card and receipted fee statement. These are needed for identification, library use, proof of completed registration and admission to university events.

### Financial Obligations

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.

## FINANCIAL AID OFFICE

106 ADMINISTRATIVE SERVICES BUILDING/255-2047

### Financial Need

Several federal, state, and university aid programs exist to help St. Cloud State University students. Most aid programs require that the student demonstrate financial need. The family, including the student, is expected to make a realistic effort to contribute toward the cost of the student's education. Financial need is the difference between the university's cost of attendance and the expected contribution from the family's resources. Many scholarships are awarded on the basis of academic

excellence or talent and do not require that the student demonstrate financial need in order to qualify. Loans not based on need are also available to families who may not qualify for need-based aid programs.

### Types of Financial Aid

There are three basic types of aid and students may receive a combination of these types to meet their financial need.

**Gift aid** is money that does not have to be repaid. This includes grants and scholarships.

**Work aid** is money that is earned through on- and off-campus employment.

**Loan aid** is money that is borrowed in the form of long- and short-term loans and must be repaid.

### How to Apply for Financial Aid

1. Apply for admission early, preferably in the fall of your senior year in high school.

2. Find out from your high school counselor and college admissions office what scholarships you may be eligible to apply for. Submit applications before the deadlines.

3. Prepare tax returns as soon as possible after January 1.

4. Complete the federal aid application for financial aid and mail it to the appropriate agency in the envelope provided. These forms may be obtained from high school counselors and financial aid offices.

5. Complete and mail the St. Cloud State University financial aid application to the SCSU Office of Scholarships and Financial Aid. New freshman students will be sent these forms after they have been admitted to SCSU. Other students should contact the financial aid office to request the forms.

To obtain additional information or application materials, contact the Office of Scholarships and Financial Aid, 106 Administrative Services Bldg., St. Cloud State University, 720 Fourth Avenue South, St. Cloud, MN 56301-4498.

Financial aid officers are available by appointment to consult with students and/or parents regarding financial aid matters. The office hours are 8 a.m. - 4:30 p.m. Monday through Friday. Summer Hours are 7:30 a.m. - 4 p.m. Monday through Friday.

## STUDENT LIFE AND DEVELOPMENT OFFICE

106 ATWOOD CENTER/255-3111

The Student Life and Development office staff 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, Minority Student Programs, Residential Life, Student Disability Services, University Organizations, University Programming, Volunteer Link and the Women's Center.

Services provided by our office include the processing and validation of student identification cards, administration of a recreation user's identification card, administration of the College Level Examination Program (CLEP) and the Miller Analogy Test, providing of local phone numbers and addresses of students and other information and assistance as may be requested. University Judicial Affairs is also housed in our office and administers the university Code of Conduct.

### Student Identification Card

Identification cards may be purchased in the Office of Student Life and Development during regular office hours. The cost of the identification card is \$5.

## ACADEMIC LEARNING CENTER

STEWART HALL/255-4993

Students who have questions concerning their reading or learning efficiency and study strategies may seek assistance at the Academic Learning Center. Two courses are offered through the center.

**110 Reading/Study Skills** focuses on study strategies, note taking, and test taking.

**\*120 Reading Rate Improvement** focuses on efficient reading techniques stressing comprehension, vocabulary and rate\*. Courses are listed in the All University courses section of this bulletin.

In addition to the courses, tutor assistance for many general education courses is available for SCSU students at no charge through the center.

*\* This course is a general education elective.*

## ATWOOD MEMORIAL CENTER

INFORMATION/255-3822  
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; dance club/cyber cafe; cultural center; and student organization offices.

Services of the student center include the University Conference & Information Center, University Programming office, University Organizations office, and a recreation center including bowling, billiards, table tennis, video and pinball. Other features include a banking service, professional hair styling shop and a copy/typing service.

University sponsored programs are a result of the efforts of students 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, Minority Student



Programs, Student Disability Services, Student Life and Development, and Student Government are located in Atwood Memorial Center.

## 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 SCSU students, staff and faculty. The primary goal of the center 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

### 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

HILL HALL FIRST FLOOR 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 Fridays.

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 changes. Health Services has established contracts with Blue

Cross & Blue Shield, Medica, Central MN Group Health Plan, U Care of MN, Champus, 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 SCSU. Students who graduated from a Minnesota High School in 1997 or later are exempt from this requirement.

### MINORITY STUDENT PROGRAMS

*Dedicated to preparing students for leadership and academic excellence.*

#### ADMINISTRATIVE OFFICES



137 ATWOOD MEMORIAL CENTER/255-3003

The Department of Minority Student Programs provides for the particular needs of all minority students at St. Cloud State University. Our goal is to provide comprehensive services by giving academic assistance, encouraging personal development and offering multicultural programming. The administrative office provides programming assistance and support services to minority student organizations and other groups currently recognized by the Office of University Organizations, as well as providing overall programmatic direction, fiscal responsibility, personal counseling and public relations for the department.

### MINORITY ACADEMIC SUPPORT CENTER

B-121 EDUCATION BUILDING/255-3976

The Minority Academic Support Center (MASC) provides direct academic services to students. The center helps students to build the skills needed to successfully complete college and serves as a focal point of interaction between students, faculty and the campus community. Services available at the Minority Academic Support Center are: A computer lab with both IBM and Macintosh; tutoring for individuals and small groups; academic advising and counseling; assistance with class scheduling; listings of jobs, internships and scholarships; and a quiet study area.

**MENTORING PROGRAM**

B-121 EDUCATION BUILDING/255-3976

The Mentoring Program provides minority students with useful information so they can make informed decisions about academic and social life. Faculty of color offer support and guidance to help new students become successful in their college career.

**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 of color at SCSU. Services provided include: help with time management and study skills, tutoring, daily study table, academic counseling and advising, and assistance with course scheduling.

**MINORITY TUTORING PROGRAM**

DR. RICHARD R. GREEN HOUSE  
809 FOURTH AVENUE  
SOUTH/654-5392

The Minority Tutoring Program provides students of color with tutorial services in conjunction with SCSU's Academic Learning Center. Tutoring is available in the following areas on a daily basis or by request at the Dr. Richard R. Green House: Math; general science, including chemistry and biology; English; social studies, including geography, social science, sociology, political science, and history; human relations; and general business.

**MINORITY ACTIVITIES CENTER**

137 ATWOOD MEMORIAL CENTER/255-2131

The Minority Activities Center plans a variety of social and co-curricular programs such as minority recreation nights, Asian celebrations, the annual Martin Luther King, Jr. Birthday celebration, Black History Month, Chicano/Latino Month activities and other multicultural programming with the specific interests of minority students in mind. All students are welcome to participate in the planning of events and programs

**RESIDENTIAL LIFE**

CAROL HALL/255-2166

**Residence Hall Facilities**

**Stearns Hall** is a mixed class hall with men and women living on alternate floors.

**Mitchell Hall** is primarily an all-women residence hall, with men residing in the lower level only.

**Hill-Case Hall** houses freshman to senior men and women in separate wings with common recreational facilities and lounges.

**Sherburne Hall** houses men and women on alternate floors.

**Benton Hall** provides apartment-like living for upper-class men and women, with recreational facilities located in Carol Hall.

Additionally, specific GPA requirements are necessary.

**Shoemaker Hall** provides housing for men and women on alternate floors.

**W.W. Holes Hall** houses the First Year Connections (FYC) program. FYC is designed to help first year students make a successful transition into college life.

All residence halls have areas set aside for study and relaxing activities, laundry, and snack cooking. Each room has a bed, draperies, desk with adequate study lighting, wastebasket, chairs, and closet space. All rooms have direct-access computer hook-up, cable television hook-up and telephone service. Students furnish their linens, blankets, pillow, and bedspread.

**Residence Hall Program**

Residence hall living is designed to provide an experience in community, at the same time affording conditions conducive to academic achievement. A hall council elected in each hall shares governance of the hall with an undergraduate resident adviser on each floor and a full-time director. Scholastic, athletic activities, and social committees are active in each hall.

The Office of Residential Life provides a full schedule of special programs, such as films, topical meetings on issues such as sexuality, racism and alcoholism, recreational and athletic competitions, small group interest sessions, skiing and roller skating parties, dances, and more.

**Applications and Contracts**

1. Students enrolling at SCSU for the first time will receive application forms and residence hall information shortly after notification of acceptance to the University. Students who previously have been enrolled and summer school students may contact the residential life office for application forms.

2. Completed applications should be returned to the Office of Residential Life.

3. Notice of room assignments are mailed out early in May.

4. Notice of cancellation must be given 60 days prior to the opening of the fall term and 45 days prior to the opening of all other terms.

5. Contracts for all residence halls are for room and board for the entire academic year, and are paid each semester in advance or according to established pay schedules.

6. Room and board fees are approximately \$3000 per year for a double room, subject to change by the MNSCU Board of Trustees, and

depending upon meal plan selection.

7. Room without board is available for summer school students for approximately \$185 per term for a double, \$220 for a single, subject to change by the Minnesota State Colleges and Universities Board of Trustees.

## **SPEECH-LANGUAGE AND HEARING CENTER**

EDUCATION BUILDING/255-2092 or 255-4143

The Speech-Language and Hearing Clinic provides diagnosis and therapy 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 to faculty and SCSU students are free; nominal fees are charged to individuals from Central Minnesota.

## **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, fitness programs 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, and multipurpose activity center with the capacity for six tennis courts, six volleyball courts or four basketball courts, wrestling room, equipment resource center, outings 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 SCSU 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

(TDD available same number) or Student Life and Development, 255-3111

Student Disability Services is designed to provide support services for students with disabilities. Services include: interpreting, alternative test taking, note taking, advocacy and referral to other agencies. Students must provide documentation related to their disability prior to receiving services. Contact this office for an application form and fact sheet.

## **STUDENT ORGANIZATIONS OFFICE COMPLEX**

ATWOOD CENTER

**University Organizations.** Approximately 44 student organization offices, including Student Government, are housed in the Student Organizations Office Complex offering a wide variety of programs

and activities suited to meet individual talents and interests. The Office of University Organizations, located in the complex, offers information on over 230 student organizations, provides leadership programs and promotes volunteer opportunities through Volunteer Link.

**Minority Student Programs** provides academic assistance, specialized counseling, social programming and supports the needs of the minority student population at SCSU. 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 this campus. The staff works closely with this volunteer group to provide students with the best variety of extra- and co-curricular activities. The board has nine committees (concerts, speakers, outdoor and recreational programs, performing arts, special events, 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 ORGANIZATIONS AND VOLUNTEER LINK**

117E ATWOOD CENTER/255-3004

The Office of University Organizations oversees officially recognizing 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, advises the *Student Representative Assembly*, Student Book Exchange and Greek governing boards, organizes leadership conferences 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 Recognition Program, Chamber of Commerce Colleges and Universities Recognition Program, SCSU Kick-Off Program, Fireside Chats, MAINSTREET, SIDE STREET and a car pool matching service for commuting students.

**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. For more information, call 255-3117.

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.

## **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 educational and awareness programs on gender fair issues. 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 three special programs to empower women and address issues affecting the status of women at SCSU, including: 1) two scholarships for non-traditional female students, 2) the Women's Cultural Diversity Retreat and Planning Committee, a group of faculty, staff and students committed to dialogue and alliance building between white women and women of color, and 3) the Women's Mentorship Program, a program that forges connections between students, faculty and staff to empower women on campus.

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.

## ACADEMIC AFFAIRS

### Continuing Studies

As part of the Office of Graduate and Continuing Studies, this office 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.

### Office of Institutional Research and Planning

The Office of Institutional Research and Planning is the central research and planning office at St. Cloud State University. Its mission is to help St. Cloud State University and its stakeholders gain and use information about the university's operations, outcomes and environment.

In pursuit of this mission, the office analyzes policies and issues, evaluates institutional activities, collects, analyzes and reports official university statistics and manages specific institutional projects.

### Learning Resources and Technology Services

#### Library

Learning Resources Services, located in Centennial Hall, serves all disciplines of the university. It is located as a focal point in the approximate 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, 227,000 paper copies of federal and state documents, and more than 1.5 million units of microform—including ERIC documents. The collection also contains 2,000 periodical titles, 1,100 electronic periodical subscriptions, 62,000 maps, and 30,000 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 has access to the MINITEX networks 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

The InforMedia Arcade houses more than sixty lab workstations for student use, in addition to the forty-five public access workstations in Centennial Hall. Technology, products, and services are available in the InforMedia Arcade for creating materials, presentation and instructional media.

### Academic Computer Services

Academic Computer Services (ACS) provides access to various computer systems and services. Computing requirements are served by use of five local minicomputers. These systems include Digital's VMS and Unix-based processors. More than 2000 workstations are connected to this computer network. Several Macintosh and Windows-based microcomputers, dispersed throughout the campus, are available. Software includes several programming languages, word processors, databases, statistical analysis programs and other application packages.

The staff of ACS provides consulting for students in computer-related courses, assistance for students and faculty requiring statistical programming and support for faculty interested in developing computer applications to be used in various courses. Computer accounts for students, faculty and staff are available upon request by completing an electronic application available in any of the open labs. 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, under the supervision of other departments and colleges, 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 Computing Handbook.

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

Graduate students working a thesis or research project requiring statistical analysis can obtain support for their project by contacting ACS. Data entry, statistical analysis programming and even assistance with survey design are available for the ACS staff.

### Technical Support Services

Technical Support Services is a full spectrum technology support agency. TSS provides design, installation, training, operational and maintenance services on a wide range of technologies in support of the academic and administrative missions of St. Cloud State University. One of the foremost responsibilities is installing and maintaining the campus telecommunications infrastructure comprising more than a million feet of optical fiber and more than 5000 network connections. The mission of the Network Engineering Group within TSS is to manage the growth and performance of the university's networks to insure that network capacity is sufficient to support academic and administrative missions. TSS is also responsible for technologies supporting distance learning, smart classrooms, video teleconferencing and all audio-visual systems.

### 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.

## ADMINISTRATIVE AFFAIRS

### Administrative Computer Services

The Computer Center, located in the basement of Centennial Hall (Room 37B), serves as Administrative Computer Services for St. Cloud State University and, additionally, serves as the Administrative Computer Center for the central region of the Minnesota State Colleges and Universities (MnSCU), which includes Alexandria Technical College, Central Lakes College, Lake Superior College, Pine Technical College, Ridgewater College, and St. Cloud Technical College.

Computer hardware in the center includes an UNISYS 2200/611 mainframe as an enterprise server, a UNISYS Pentium NT Server, and a Digital Alpha 4100. The UNISYS 2200 is the backbone of the administrative processing serving as the hardware platform for the legacy systems that support the institution. The Digital and Alpha represents the



new client-server platforms that will run the administrative systems in the future. The NT Server serves as a "secure server" entry into the world of electronic commerce on the World Wide Web.

All the administrative servers and microcomputer workstations on campus are a part of the campus TCP/IP network.

### Admissions Office

St. Cloud State University is represented to prospective students by members of the admissions staff. It provides specific admission, financial aid, and program information to college-bound students, high school counselors and transfer students. Tours, information sessions and consulting appointments are provided for prospective students who visit campus.

### Buildings and Grounds

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

### Business Office

The Business Office, located in the Administrative Services Building (Room 122) is responsible for the billing and collection of student tuition and fees. The cashiers windows are open during the regular academic year (between Labor Day and Memorial Day) from 8 a.m. to 2:30 p.m. and during the summer (between Memorial Day and Labor Day) from 7:30 a.m. to 2 p.m.

### Career Services

This office provides comprehensive career services to all members of the university community, as well as recruiting services to local, regional and national employers. Candidates are encouraged to register with Career Services one year prior to graduation initiating the process of developing professional career marketing information and skills including: credentials/portfolio, resumé, cover letters, interviewing skills, and job search strategies.

Career Services' primary mission is to assist students with focusing their career direction and making professional connections. The Alumni Networking Data Base and diverse employer references, located in the Career Services library, are invaluable tools in making these professional connections. Registered candidates also are entered into an exclusive data base system whereby employers can request resumes of qualified candidates.

Additionally, Career Services offers one of the most active on-campus recruiting programs in the state, a bi-weekly career opportunity bulletin, salary and labor market data, instructional seminars, job fairs, and local, regional, and national job listings.

The Career Services website is: [www.stcloudstate.edu/~careersv/](http://www.stcloudstate.edu/~careersv/).

### Human Resources

The Human Resources office provides personnel services for the approximately 1,200 faculty and staff of St. Cloud State University. These services include the administration of insurance benefits, retirement, workers' compensation, unemployment compensation and other benefit programs of the university.

### Printing Services

Printing Services serves as the central duplicating, photocopying and printing facility for the university for faculty, staff and student organizations.

### Records and Registration

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 \$2 charge for each transcript.

### University Public Safety

On duty 24-hours a day, Public Safety 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 and parking regulations, supports personal and property safety through crime prevention (i.e., escort services, blue-light phones) and security-awareness programs and coordinates these efforts with other University departments and local law enforcement and service organizations. The purchasing of parking permits and related matters are handled by the Public Safety Department.

## UNIVERSITY COMMUNICATIONS

### Foundation and Alumni Services

The Offices of SCSU Foundation and Alumni Services are located in the Alumni and Foundation Center next to the Administrative Services Building.

The SCSU Foundation seeks private gifts from alumni, parents, students, faculty and staff, businesses, foundations and other friends of SCSU to supplement and enhance university funds from tuition and state sources. Foundation resources provide scholarships, research grants to faculty and staff, equipment and additional support for enhancement of Learning Resources Services and other campus services.

Alumni Services maintains contact with more than 70,000 SCSU alumni; sponsors events and programs designed to promote the university; encourages collaboration between the university departments/programs and graduates; and recognizes the outstanding achievements of SCSU graduates.

### University Communications

The Office of University Communications, 207 Administrative Services Building, supervises all public information about the university, including media relations, sports information, events promotion, marketing, imaging (photography), and publications. This office is responsible for developing and maintaining a strong institutional image. University Communications is a source for images of SCSU logos, the wordmark, the university seal and other graphic representations of St. Cloud State University and guidance in their appropriate use.

While the office primarily is concerned with university-wide issues, it does offer a number of services, including passport photographs, assistance and guidance with publications and media relations, as well as opportunities for student employment and experience.

## ALL-UNIVERSITY COURSES

### Educational Tours

**410-510. Educational Tours.** (Name of department or program). Tours taken under supervision of the university. Exact nature of course will be defined by the department involved and approved by the vice president for academic affairs. Considered residence credit. 1-6 Cr.

### Independent Study

**199-499. Independent Study.** (Name of department or program). Offered at the discretion of departments, this program is intended for the very able, motivated student whose intellectual needs are partially served by serious independent study. Permission of instructor required. May be repeated. 1-3 Cr.

### Internships

Internships are offered at the discretion of departments. Course number and number of credits are determined by the departments. Contact departmental offices for further information. 16 credits maximum in any one program. 1-16 Cr.

### Transitions

**COLL 121. Orientation for Non-Traditional Students.** This course is designed to acquaint entering non-traditional students with the services of the university as well as the Learning Resources Center. 1 Cr. F.

**COLL 150. Discovering the College Experience.** Student behaviors, attitudes, skills, and information to achieve college success. Topics include time management, goal setting, academic programs and advising, student services and resources, relationships and health. Format includes interactive exercises, guest lecturers and application assignments. Not for credit if COLL 121 or ESL 150 completed. 2 Cr. F, S.

**ESL 150. Orientation for International Students.** Academic and cultural orientation program for international students. Focuses on higher education in the U.S., study strategies, racism and sexism, public safety, immigration issues, and cultural shock and adjustment. Required of entering and transfer international students. 2 Cr. DEMAND.

### Reading

**110. Reading/Study Strategies.** Analysis and development of problem-solving strategies designed to organize, record, and review information relating to college course work. Application of problem solving strategies, study strategies, notetaking and test taking to enhance individual learning experiences and to prepare for examinations in college course work. 2 Cr. F, S, SUM.

**†120. Reading Efficiently: Rate Improvement.** Instruction and practice in strategies to enhance critical reading and reading flexibility through the application of efficient comprehension strategies and vocabulary development. 2 Cr. Alternative grading: S-U, A-F. F, S, SUM.

### Short Courses

**196. Short Courses.** (Name of department or program). Specific subjects selected to meet educational needs. Exact nature of course will be defined by the department. 1-3 Cr.

### Special Problems

**400. Special Problems.** (Name of department or program). A seminar or conference course for advanced students wishing to work out a special problem in the academic area. 1-3 Cr.

### Television

**488. (Name of department or program).** Exact nature of the course to be offered on television will be defined by the department. 1-3 Cr.

### Workshops

**495-595. Workshop.** (Name of department or program). Specific subjects selected to meet special educational needs, offered in a format different from the typical scheduled course. Exact nature of the course will be defined by the department. 1-3 Cr.

## EVENING PROGRAM

### CENTER FOR CONTINUING STUDIES/255-3081

The evening program provides educational opportunities to part-time students and others who cannot attend during the day. Students now may complete an Associate of Arts degree, elective studies degrees, and a B.A. degree with selected majors and minors. Students wanting to learn more about these options should contact the Center for Continuing Studies.



## UNIVERSITY HONORS PROGRAM (HONS)

209 ADMINISTRATIVE SERVICES BUILDING  
255-4945, 255-3144

Director David Boyer

### Mission

The University Honors Program (UHP) is an alternative to general education for the academically talented student, distinguished by its small classes, student-centered pedagogy, and a unified cross-disciplinary curriculum with global coverage and gender inclusion. The program's academic goals are similar to general education. The UHP invites creative topics from instructors. Students and faculty alike benefit from the excitement of trying educational innovations.

Honors is a small learning community with the resources of a large university. Its classes generally have 25 or fewer students and thus promote discussion, cooperative learning and independent exploration. The learning community is strengthened by the Honors Club and the option of living in W. W. Holes Hall and Benton Hall, the honors residence halls.

### A nationally recognized program.

The UHP's educational coherence continues to develop from a project funded at SCSU from 1991 to 1994 by the U.S. Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE), the largest grant of its kind ever made by FIPSE. We are thus serving as a model for other honors programs nationwide.

### The academic goals of the university honors program.

In honors classes the student will:

1. Develop academic skills in the unusually talented student at the university level, including written and oral communication, creative and critical thinking and problem solving.
2. Develop independent intellectual exploration, group discussion and cooperative learning; honors students learn through experience to interact in a seminar-style setting.
3. Explore a balance of subject matters.
4. Experience the interconnectedness of human knowledge.
5. Examine human values.
6. Appreciate the variety of human cultures and human lives.
7. Develop life-long habits of learning and leadership.

### The University Honors Club

All honors students are invited to participate in the Honors Club, which influences the UHP significantly. Club members welcome new honors students, recruit instructors, and consult with the program director on honors curriculum, scholarships, program policy, and new student admissions. The club's social activities, speakers and service projects also develop leadership and help make honors a learning community.

### International Opportunities

In addition to SCSU's overseas campuses, the university honors program is associated with the Centre for Medieval and Renaissance Studies in Oxford, England. Through the Centre, which is affiliated with Keble College of Oxford University, selected honors students will be able to experience British university life, tutorials, lectures and classes. Students will be in residence at the Centre for one or two semesters. Contact the director of the honors program or SCSU's Center for International Studies for information and application procedures.

### Extracurricular Participation

Honors students are encouraged to participate in the wide variety of extracurricular activities offered within the university. These include student government, campus organizations and clubs, cultural events, special lectures by scholars and artists, and informal discussions with colleagues and professors.

### Admission

Many roads lead to honors: directly from high school; early admission in advance of attending SCSU; early admission for students in the Post-Secondary Enrollment Options Act (PSEO) program, who may take honors courses before graduating from high school; applying to the UHP having begun at SCSU; transferring from another college or university, possibly from another honors program; and upon returning to university studies. It works best not to accumulate many general education credits before applying to SCSU's honors program.

Students applying from high school should be in about the top ten percent of their high school classes with strong pre-college test scores, school and community activities, a writing sample, and recommendations. Students following other roads to honors should present comparable information.

Applying to honors is a separate process from applying to SCSU, and these may be done in either order. Students applying early may cite the PSAT, although the ACT will eventually be required to register at SCSU (unless you are a transfer student).

### The Honors Curriculum

The requirements below apply to students entering the UHP starting in the fall of 1998, under the semester system.

### Windows on the world.

Many honors courses are topics courses, meaning that the content can vary with each instructor. Some are world civilizations courses taught by interdisciplinary teams of faculty.

### Honors course grading.

If the average G.P.A. in honors is higher it's because we admit students of high ability. Honors students meet exciting intellectual challenges, but there is no no advantage or disadvantage as to grading.

### Program requirements:

34-39 cr., comprising 31 cr. in HONS courses and 3-8 cr. of a language.

#### a) Communication skills (7 cr.):

HONS 170; 180 (or 181, 183); and 198 (1 cr.). These may be linked with the civilizations series.

#### b) World civilizations series (9 cr.):

HONS 240 (or 241, 243), 250 (or 251, 253), and 260 (or 261, 263).

#### c) Mathematics and natural sciences (6 cr.):

From any two groups: HONS 110 (or 111, 113), 120 (or 121, 123), or 130 (or 131, 133).

#### d) Electives: 9 additional HONS credits, usually at the 300-400 level, or HONS 293 (MGM-gender).

### Multicultural, gender and minority (MGM) requirement (9 cr.):

The HONS courses taken above must include three courses designated as MGM, one of which must be on gender. HONS MGM courses end in a 1 or a 3; MGM-gender courses end in a 3. MGM courses that are non-HONS do not meet this requirement.

### Language requirement (3-8 cr.)

One year of non-English language classes at the university level, all in the same language; or one course completed at the 200-level or higher. This can be either a beginning course sequence or a continuation of a language begun in high school. Test-outs, etc., do not apply: the student must actually take university language classes. Credit transferred in counts in full.

American Sign Language is permissible if available for university credit or internship experience. Languages not offered regularly by the university can be mixed if a language series is discontinued.



### International students

The honors director will waive the language requirement for bilingual international students and some Americans fluent at an adult level of daily usage in a language other than English. This is defined as the advanced level of performance according to ACTFL guidelines. Students who choose this option should then take an additional 3 credits of HONS electives.

### Physical education

The university's graduation requirement of 1 cr. in physical education applies to honors students in addition to honors requirements.

### Honors course substitutions, transfer credits, waivers, and double counting

The required total of 34-39 crs. of HONS and language classes can be reduced in various ways within limits as follows if approved in writing by the UHP director.

College credits acquired before beginning SCSU's honors program can be substituted for honors credits if approved by the program director, within the following limits:

a) At most, 7 non-honors general education credits, however acquired, can be substituted for SCSU HONS credits, including MGM credits. Credits taken after entering SCSU's honors program will ordinarily not substitute. More credit may be transferred from other universities' honors programs.

b) Up to 10 general education credits taken at SCSU's overseas

programs can be substituted at the director's approval, provided the student adds an "honors dimension" to the course by arrangement with the overseas instructor. Try to arrange for this before leaving the States. More credit can be substituted from the Oxford University's program.

Combining (a) and (b) will decrease the student's HONS requirements by at most 13 credits. Non-HONS coursework beyond 13 credits may (with director's approval) meet a specific HONS requirement but not decrease the required HONS total, i.e. it may result in more HONS electives.

Waivers apply only to the mathematics and natural science requirement. Two courses in the same area numbered 200 or higher waive one honors course. See the director to get the waiver on your record.

Double counting is not allowed in the UHP except that courses that meet the language requirement may also count towards a language major or minor.

### The pass-fail option

Honors students may take one non-HONS course for S/U grading, by permission of the instructor and the UHP director. Permission must be arranged by the end of the first week of the class, but preferably before registering for it. The purpose is to enable the student to get a peek at an advanced topic without having to compete against students majoring in that area who have more background. This S/U grading option will not be approved for courses for which the student has the normal background.

### Continuation in the Honors Program

Any time an honors student falls below a 3.0 grade point average, the students will be placed on probation in the honors program. Students on probation will have two semesters to raise their GPA to 3.0. If a student does not raise her/his cumulative grade point average to at least 3.0 by this time, the student will be dropped from the program. If, during this trial period the student's GPA keeps falling, he/she may be dropped from the program before the end of the two semester trial period. (Note: Summer school does not count in calculating the two-semester trial period.)

### Withdrawal

Students who are considering withdrawal from the program should discuss their concerns with the honors director. A student may withdraw at any time with no loss of credits since all honors classes may be used to fulfill general education requirements.

### Recognition

Those graduating honors students who have achieved a cumulative grade point average of at least 3.25 for all work taken, receive the "university honors scholar" designation on their official record. In addition, the latter are ordinarily graduated with honors.

### Honors Internship and Thesis (HONS electives)

Like other honors coursework, research theses and internships may not double count toward a major or minor and may not be narrowly focused on vocational preparation. A research project or internship may build on honors themes and academic skills and should explicitly address broad human concerns that make it worthwhile. *A maximum of 6 internship and research credits may apply toward honors requirements.*

Honors research projects and internships require an approved written plan supervised by faculty with relevant expertise. The written plan must specify at least three honors educational goals, and must be signed by the student, instructor, instructor's chair, honors program director, and the student's major adviser.

For an internship, the work hours, size and type of project should follow standards of the supervising department. The usual arrangement is a 3 Cr. internship, 15-20 hours per week for one semester using the course number HONS 444.

A research paper may take the form of an ambitious paper, on the order of 50 pages, focused on broad human concerns. Thesis standards



are described in *A Manual for the Preparation of Field Studies, Theses, Creative Works, or Starred Papers*, available from the SCSU Graduate Studies Office. A faculty member or a team of faculty can offer an honors research circle class using HONS 490, 491 or 493. A student can approach a faculty member for independent study in the relevant area of expertise.

Overseas field research projects can enhance SCSU's overseas study programs; the student should first work up a plan with a faculty member on campus. The research paper can be written after returning to the United States.

Honors students who complete research projects or internships are encouraged to present outcomes to other honors students in a research colloquium, in an honors orientation class, or in the Honors Club.

## COURSE DESCRIPTIONS

Mathematics and natural sciences are meant to broaden the horizons of the non-specialist, emphasizing labs and other exploratory challenges. They may promote mathematical and scientific literacy for the citizen, link with the world civilizations theme, or highlight today's mathematical and scientific issues.

**110. Honors Mathematics.** 3 Cr. F. S.

**111. Honors Mathematics (MGM).** 3 Cr. F. S.

**113. Honors Mathematics (MGM-Gender).** 3 Cr. F. S.

**120. Honors Physical Science.** 3 Cr. F. S.

**121. Honors Physical Science (MGM).** 3 Cr. F. S.

**123. Honors Physical Science (MGM-Gender).** 3 Cr. F. S.

**130. Honors Biology.** 3 Cr. F. S.

**131. Honors Biology (MGM).** 3 Cr. F. S.

**133. Honors Biology (MGM-Gender).** 3 Cr. F. S.

**170. Introduction to Speech Communication**

Introduction to fundamentals of communication with specific application to interpersonal communication, small group communication and public speaking. Theory and experience to relate meaningfully, think critically, organize clearly and speak and listen effectively. Substitutes for (SPC 192) in any SCSU requirement. 3 Cr. F. S.

**180. Literature and Composition.** 3 Cr. F. S.

**181. Literature and Composition.** 3 Cr. F. S.

**183. Literature and Composition (MGM-Gender).** 3 Cr. F. S.

**198. The Research Paper.**

Coreq.: a course in the HONS 180 series or the civilizations series 240 to 263. Usually taught by the same English faculty member. 1 Cr. F. S.

**240. Windows on Asia**

Literature, social science, philosophy, and other topics selected from prehistory or such Asian civilizations as Mesopotamia, the Hebrews, Persia, India and China. Emphasis on classical periods; possible fast-forwards to the present. Mid-semester exploration: campus resources. 3 Cr. F. S.

**241. Windows on Asia (MGM)**

Designates HONS 240 when primarily non-western, such as Persia, India or China. 3 Cr. F. S.

**243. Windows on Asia (MGM-Gender)**

Designates HONS 240 when primarily on gender roles and women in Asian civilizations. 3 Cr. F.

**250. Mediterranean Connections**

Literature, social science, philosophy, and other topics selected from Greece, Egypt, Islam, and medieval to early modern Europe. Possible fast-forwards to the present. Mid-semester exploration: community resources. 3 Cr. F. S.

**251. Mediterranean Connections (MGM)**

Designates HONS 250 when primarily non-western, such as Islam; or when concerned with minority cultures such as Jewish history in Europe. 3 Cr. F. S.

**253. Mediterranean Connections (MGM-Gender)**

Designates HONS 250 when primarily on gender roles and women in Mediterranean civilizations. 3 Cr. F. S.

## 260. Atlantic Connections

Literature, social science, philosophy, and other topics selected from Africa and the Americas. Mid-semester exploration: graduate school, career, and life-long learning. 3 Cr. F. S.

**261. Atlantic Connections (MGM)**

Designates HONS 260 when primarily non-western, such as African; or when concerned with minority cultures such as native American or hispanic. 3 Cr. F. S.

**263. Atlantic Connections (MGM-Gender)**

Designates HONS 260 when primarily on gender roles and women in Africa or the Americas. 3 Cr. F. S.

## Electives:

**293. Lives of Women and Men (MGM-gender)**

Women and men in history, in present-day life, and gender roles, with at least a balance of emphasis on women. Taught from various academic perspectives. 3 Cr. F. S.

**300. Special Topics**

3 Cr., this group repeatable for up to 15 Cr. F. S.

**301. Special Topics (MGM)**

3 Cr., this group repeatable for up to 15 Cr. F. S.

**303. Special Topics (MGM-Gender)**

3 Cr., this group repeatable for up to 15 Cr. F. S.

**400. Advanced Academic Skills**

3 Cr., this group repeatable for up to 15 Cr. F. S.

**401. Advanced Academic Skills (MGM)**

3 Cr., this group repeatable for up to 15 Cr. F. S.

**403. Advanced Academic Skills (MGM-Gender)**

3 Cr., this group repeatable for up to 15 Cr. F. S.

**444. Honors Internship**

Prereq.: admission to a major. DEMAND. S/U optional. 1-6 Cr., repeatable for up to 6 Cr. F. S.

**490. Honors Thesis**

3 Cr., repeatable for up to 6 Cr. DEMAND.

**491. Honors Thesis (MGM).**

3 Cr., repeatable for up to 6 Cr. DEMAND.

**493. Honors Thesis (MGM-Gender)**

3 Cr., repeatable for up to 6 Cr. DEMAND.

## DEPARTMENTAL HONORS

All departments in the university may offer departmental honors in their majors. Such honors are offered independently of the University Honors Program and may be achieved by students not admitted to the University Honors Program. Students should confer with the department chairperson as soon as they are admitted to their major.

With the exception of three common features, each departmental honors program has its own individual characteristics. All have opportunity for students to do independent work for credit. The course entitled independent honors study is available in every department and may carry from 3 to 9 credits. The departments offer independent honors study as the number of honor students and the availability of faculty permit. The purpose is to give students ample opportunity to pursue various readings or research topics not available to them through the regular departmental curriculum.

Secondly, each department requires a senior project for students to graduate with departmental honors. This normally is begun during the spring semester of the junior year or the fall semester of the senior year. The nature of the project is determined by the student and the department; it must be a work that reveals scholarly or artistic competence in one's field. It also should reveal the student's ability to think critically, to handle the bibliographic and research tools of the field, and to express herself/himself in a scholarly manner.

Finally, senior departmental honor candidates must take a comprehensive examination in their major field. The details of the examination are determined by the department.

Those graduating students who have achieved a cumulative grade

point average of at least 3.25 for all work taken and at least 3.50 for all work taken in the major and who have completed all departmental honors requirements as certified by their department chairperson will receive the "Departmental Honors Scholar" designation on their official record.

## INTERNATIONAL STUDIES

CENTER FOR INTERNATIONAL STUDIES/255-4287

Director Roland A. Fischer

In keeping with its stated international educational mission, St. Cloud State University believes it is essential that its students, faculty and staff become aware of and sensitive to the diversity of values, beliefs and patterns of social interactions which prevail around the world. The university's quest for international understanding and sensitivity is embodied in its international studies programs which are administered through the Center for International Studies.

### Study Abroad

St. Cloud State University students and faculty may live and learn abroad on a variety of programs administered directly by SCSU. These programs are operated annually, on a two semester schedule, and are located in Tianjin, China; San Jose, Costa Rica; Alnwick, England; Toulouse, France; Ingolstadt, Germany; Akita, Japan; Oxford, England; and Olomouc, Czech Republic.

Students must be a SCSU student for a minimum of one semester and be in good academic standing at the time of application and departure. All financial aid grants, loans and work-study allocations may be used on these programs. Students interested in participating should, as freshman students, enroll in the appropriate language and avoid taking on-campus general education courses in the humanities and social sciences, since many of these courses are offered abroad.

### International Student Affairs

Just as St. Cloud State University encourages American students to live and study abroad, it welcomes to its campus in the city of St. Cloud students from other countries. Their presence on campus enriches the St. Cloud environment, making possible a diversity of views and cultural values both in and outside the classroom. This diversity, if shared, creates rich learning opportunities for everyone.

Students from other countries interested in coming to St. Cloud State University must have an appropriate secondary school leaving certificate, a minimum score of 475 on the Test of English as a Foreign Language, and be willing to share their cultural values and points of view while at the same time accepting American academic practices and values as they are expressed in and out of the classroom.

As a condition of admission, non-native speakers of English are required to present evidence of their level of English proficiency (TOEFL, Michigan, or other), and will be required to take a test at SCSU before registration. If test scores so determine, successful completion of special work in English as a second language will be required.

To facilitate this sharing of values and beliefs, the Center for International Studies administers and supports a variety of programs and activities which assist students from other countries to understand American academic life and to succeed in their work: a required orientation program and course; a hospitality program; an academic advising program; English as a second language; a tutorial center for international



al students; the International Student Association; and a variety of campus-wide activities.

### Faculty and Curriculum Development

As St. Cloud State University seeks to diversify its student body culturally, it is also obliged to encourage and to facilitate the development of its faculty and curriculum in international areas. The Center for International Studies is charged with coordinating efforts in this area, and with bringing international perspectives to the attention of SCSU faculty. It provides information to faculty on international opportunities and works with departments and colleges in making grant proposals in international fields. It operates in the interests of faculty and the university a faculty exchange program with Akita University in Akita, Japan.

### Overseas University Affiliations

Through the Center for International Studies, St. Cloud State University maintains relationships with the following universities abroad: The University of Costa Rica, Aalborg University Center, Denmark, Akita University, Japan, Nankai University, China, Université de Sciences Sociales-Toulouse University, France, the Stockholm Institute of Education, Sweden, and Palacky University, Czech Republic.

### Consulting and Faculty Projects Abroad

As a public service institution, St. Cloud State University recognizes needs in the broader world community, and stands ready to use its faculty resources, in assisting institutions in foreign countries in ways that are mutually beneficial. In this regard, SCSU encourages consulting among its faculty as public service activity. This also provides SCSU faculty with opportunities to evaluate and expand upon their own work.

## MILITARY SCIENCE (MILS)

11 STEWART HALL/255-2952

**Director** Captain Shawn M. Maxwell

**Faculty** Sergeant First Class Charles R. Effinger

*Also see descriptions and requirements of your major college.*

The Army Reserve Officer Training Corps (ROTC) program offers the student the opportunity to develop and practice leadership skills that will be useful in a civilian or military career. ROTC is primarily an on-campus program which encourages and promotes the development of the whole person - intellectually, emotionally and socially. The military science (MILS) curriculum allows students to develop their self-discipline, physical stamina, confidence and poise - qualities basic to success in any career endeavor.

The program is divided into two phases: The basic course which consists of the freshman and sophomore years, and the advanced course which comprises the junior and senior years.

The basic course consists of course work in customs and traditions of the service: leadership, ethics, and basic military skills. Students will not receive any pay and are under no commitment to military service.

Those students selected to participate in the advanced course will complete 16 hours of MILS coursework in the area of advanced military skills, history, leadership, ethics, administration, organization, and training of the U.S. Army.

In addition ROTC cadets are required to complete a baccalaureate degree and the professional military requirements: at least one undergraduate course from the three following designated fields of study: written communication, military history, and computer literacy. The advanced course also requires one paid summer training program which is five weeks in length and is conducted at a major U.S. army installation.

Two, three and four year scholarships covering full tuition, fees, and a flat rate for books are available upon application and qualification. Scholarship selection is based on academic and military leadership potential, military aptitude and a whole-person evaluation. Prior MILS enrollment is not required to apply and compete for a scholarship.

All contracted advanced course and scholarship cadets receive a monthly tax-free allowance during the school year of \$150 per advanced course and scholarship cadets receive a monthly tax-free allowance during the school month not to exceed \$1500 per-school year.

ROTC is open to both men and women, and non-scholarship students do not incur a military obligation until they enter the advanced course or accept a scholarship. Upon graduation from college and successful completion of Army ROTC, cadets are commissioned as second lieutenants and will serve on active duty or with reserve/national guard units. Veterans, reservists, guard members, and JROTC graduates may be eligible for advanced placement. All courses include participation in leadership laboratories, physical fitness training and adventure training exercises.

ROTC extracurricular activities focus on further development of leadership and management skills, recognizing the value of team building and camaraderie. The cadets work together to train and provide a Color Guard for different sports events and other special events around the area. Ranger Challenge and Raiders are two more of the areas that are offered to help challenge all cadets both physically and mentally.

Students desiring more information, course listings, or enrollment should contact the SCSU military science office at 255-2952/3930, Room 11 Stewart Hall.

## COURSE DESCRIPTIONS

### 101. Introduction to ROTC

The American military BASIC COURSE, the organization and purpose of the U.S. Army, leadership, ethics, rank structure, customs of the service. Army career opportunities, and the ROTC program. MS101L required with this course. 1 Cr. F

### 102. Introduction to Leadership

Military leadership, the branches of the U.S. Army, command and staff functions, leadership, roles of commissioned and noncommissioned officers, and the Constitution. MS102L required with this course. 1 Cr. S.

### 201. Self/Team Development

Management and leadership techniques, basic military skills, development of individual competence, and build confidence in their skills, knowledge and beliefs. MS201L required with this course. Prereq.: 101, 102. 2 Cr. F

### 202. Individual/Team Military Tactics

Military management and leadership principles, techniques of effective communication, land navigation. MS202L required with this course. Prereq.: 101, 102. 2 Cr. S.

## ADVANCED COURSES

### 301. Leading Small Organizations I

Leadership as applied in military organizations. Military as a profession and its system of ethics. MS301L required with this course. Prereq.: Contracted Cadet. 3 Cr. F

### 302. Leading Small Organizations II

Advanced military skills and leadership development. Individual tactics and training. Offensive and defensive tactical doctrine for small unit operations. MS302L required with this course. Prereq.: Contracted Cadet. 3 Cr. S.

### 401. Leadership Challenges and Goal Settings

U.S. Army command and staff responsibilities and functions: the role of the non-commissioned officer, counseling of subordinates, management of training, and development of oral and written communication skills. MS401L required with this course. Prereq.: 301, 302. 3 Cr. F

### 402. Transition to Lieutenant

Skills, procedures, and techniques of leadership necessary to contribute to and succeed in the Army. "Real world" applications and exercises in personnel management, logistics, tactics, decision making, oral and written presentation techniques. MS402L required with this course. Prereq.: 301, 302. 3 Cr. S.

### 101L, 102L, 201L, 202L. Basic Course Leadership Lab

Open only to (and required of) students in the associated Military Science course. Different roles for students in different levels of the program. Build self-confidence and team-building leadership skills through application of skills learned in class. Prereq.: associated MS class. 1 Cr.

### 301L, 302L, 401L and 402L. Advance Course Leadership Lab

Open only to (and required of) students in the associated Military Science course. Different roles for students in different levels of the program. Build self-confidence and team-building leadership skills through application of skills learned in class. Prereq.: associated MS class. 1 Cr.

**COLLEGE OF BUSINESS**

124 BUSINESS BUILDING/255-3213

Dean: James Kelly, Dean

Associate Dean: Wayne Wells

**Departments**

Accounting  
 Business Computer Information Systems  
 Finance, Insurance and Real Estate  
 Management  
 Marketing and General Business

**Centers and Programs**

Center for Business Research  
 Center for International Business  
 Internship Program in Business  
 Minnesota Real Estate Research Center  
 Small Business Development Center

**The following majors and minors are offered in the College of Business**

Accounting  
 Business Computer Information Systems  
 Finance  
 General Business  
 Insurance  
 International Business  
 Management  
 Marketing  
 Real Estate

The College of Business offers programs leading to the Bachelor of Science degree with majors in accounting, business computer information systems, finance, general business, insurance, international business, management, marketing and real estate. Minor programs also are available in accounting; business computer information systems; finance, insurance and real estate; general business; international business; management; and marketing. Management concentrations are available in Operations Management and Human Resources Management.

The College of Business offers graduate programs leading to the Master of Business Administration and Master of Science in accounting degrees. Detailed information concerning graduate programs may be found in the Graduate Bulletin.

**Accreditation**

The College of Business is accredited by AACSB, the International Association for Management Education, at both the bachelor's and master's degree levels. AACSB accreditation establishes standards for collegiate schools of business to promote high levels of educational quality. The College of Business real estate program also is accredited by the International Real Estate Federation.

**Mission**

The mission of the College of Business at St. Cloud State University is to provide quality business education to our students. The college's goal is to prepare students for successful careers in business, not-for-profit organizations, or government and to encourage responsible participation and leadership in society. There are three interdependent aspects of our mission: teaching, scholarly activity, and external interaction.

**Teaching**

The College of Business seeks to provide quality curricula that are current, relevant, innovative in approach and global in scope. The learning environment in the College of Business endeavors to:

- ▼ Provide students a deep and extensive understanding of current business concepts and practices.
- ▼ Promote an appreciation and practice of high ethical standards and a recognition of the social and environmental responsibilities of business.
- ▼ Assist students in developing strong communication skills, both oral and written.
- ▼ Foster critical and analytical thinking in the context of solving the problems of business and society.
- ▼ Advance global and multi-cultural awareness.
- ▼ Develop competence in computer skills.
- ▼ Inspire lifelong learning.
- ▼ Encourage teamwork and enhance interpersonal skills.
- ▼ Prepare students to cope with rapid change within the internal and external environment of business.
- ▼ Further an inquisitive attitude about the problems of business and society and enkindle students to actively seek creative solutions to these problems.
- ▼ Provide a caring atmosphere.

**Scholarly Activity**

The College of Business embraces the university's mission of expanding knowledge through research and scholarly activity. Through these activities, the College of Business strives to:

- ▼ Apply, transfer and interpret knowledge relevant to business, not-for-profit organizations, and government.
- ▼ Create new knowledge that assists business, not-for-profit organizations and government.
- ▼ Enhance teaching by communicating the knowledge generated through scholarly activities to students.
- ▼ Expand faculty knowledge and understanding of business.
- ▼ Strengthen external interactions by sharing the knowledge generated with the community.

**External Interactions**

The College of Business is committed to active, meaningful involvement with the community. Through ties with the community, the College of Business seeks to:

- ▼ Expose students and faculty to actual business practices.
- ▼ Share the College's knowledge of business.
- ▼ Render public service to community programs and organizations.

**Center for Business Research**

Director: Richard J. Sebastian/255-3215

This office is responsible for administering and coordinating business research, continuing education and community service programs





of the College of Business. The major objectives of this office are to facilitate and support faculty research and professional development and provide service to the community. Some specific functions of this office are:

1. To support and assist faculty in their professional development and coordinate resources for that purpose.
2. To help faculty identify external sources of support for research, aid in the preparation of research grants and contracts and coordinate College of Business research proposal activities with other university offices and outside units.
3. To provide service to the community through continuing education, training and development, consulting and applied research.

## The Entrepreneurial Center

**Director:** William C. Rodgers/654-5420

The Entrepreneurial Center operates as a partnership of St. Cloud State University faculty, students and alumni with entrepreneurial oriented community businesses, organizations and individuals to help coordinate, develop and improve community and university entrepreneurship programs and support services. Center objectives relate to stimulating and facilitating entrepreneurship and enterprise formation among SCSU students and community stakeholders. As a College of Business unit, The Entrepreneurial Center serves the entire SCSU community from offices located in Centennial Hall, Suite 30. For further information, contact our website or phone or visit our offices.

## Internship Program in Business

**Director:** Scott Johnson/255-4057

Business majors who have completed their junior year are encouraged to participate in the internship program in business available in each department. The program provides:

1. An opportunity for students to work under an approved program for a semester or more with a participating firm or organization.
2. An opportunity for students to identify with the business world and explore career options prior to graduation.
3. An opportunity for businesses and organizations to receive high-quality temporary assistance on special projects or in areas with short-term needs.
4. An opportunity for businesses and organizations to cooperate with the College of Business in preparing students for career opportunities after graduation.

The programs are available for any semester during the calendar year, including summer. Majors in the College of Business are urged to arrange a meeting with their adviser in order to include provision for participation in the internship program during the first or second semester of their senior year of study. Students must spend at least one semester at SCSU after the internship in order to complete the post-internship requirements and receive credit for the internship experience.

## Minnesota Chair in Real Estate

**Professor and Chairholder:** Steven P. Mooney/255-3074

An endowed professorship sponsored cooperatively by the Minnesota Department of Commerce and SCSU, the chairholder is responsible for the operations, research and programs of the Minnesota Real Estate Research Center. The chairholder also directs the Bachelor of Science and MBA degree programs in real estate in the Department of Finance, Insurance and Real Estate.

The real estate degree program is the only professional, four-year, university-level program in Minnesota. The curriculum focuses students' interest on the technical and conceptual aspects of real estate. All students complete a common core of real estate courses and then

specialize in real estate brokerage, property management, development, appraisal, finance or investments.

## Minnesota Real Estate Research Center

**Director:** Steve P. Mooney/255-3074

A program of the Minnesota Chair in Real Estate, the center provides research and consulting services to governmental agencies and private industry. Articles of special interest to the real estate and housing industry are published by the center.

## Small Business Development Center

**Director:** Dawn Jensen Regnier/255-4842

The Small Business Development Center (SBDC) is a comprehensive resource center where information, counseling and assistance are coordinated and disseminated to persons who plan to start a small business or are presently operating a small business. The SBDC is jointly funded by the university and the U.S. Small Business Administration, and offers the following services:

1. Assistance in the preparation of business plans and loan application packages.
2. Workshops and seminars on a variety of topics for the continuing education of small business persons in central Minnesota.
3. Free and confidential counseling to meet the specific needs of a small business.

## Academic Policies

### Admission to prebusiness status

When you decide to major in business, you should do the following:

1. Contact the Office of Records and Registration, 117 Administrative Services Building. Bring a transcript of all previous credits earned (if any). You will receive written permission for admittance to a prebusiness status.
2. Take your application form to the College of Business Student Services Office, 123 Business Building, and a file will be established. As a prebusiness student, you need to obtain an access code from one of the advisers in the Student Services Office each semester until you have been admitted to a major program. Watch for advising dates each semester.

### Admission to certain lower-division classes

A minimum GPA of 2.00 is required for enrollment in the following prebusiness courses:

ACCT 291, 292  
BCIS 240, 241  
MKGB 235

### Admission to a Major in Business

To be considered for admission to a major in the College of Business, a prebusiness student must:

1. Complete ACCT 291; BCIS 240; ECON 205, 206; ENGL 191; SPC 192.
2. Complete or be enrolled in ACCT 292; BCIS 241; and MKGB 233, 235.
3. Complete General Education's Mathematical Thinking Competency.
4. Achieve an overall GPA of at least 2.65.
5. Achieve a grade of "C" or better in ACCT 291 and BCIS 240.
6. Obtain an admission to major program form from the Student Services Office, BB 123.
7. Complete the major-minor program form with the assistance of a major adviser. Admission to a major program is not complete until the major-minor program form is on record in the Office of Records and Registration and the Office of the Dean.

8. Complete at least 50 percent of all credits outside the College of Business. Because of this restriction, business majors are not allowed to also complete a minor in business except in international business and business computer information systems.
9. Not use courses offered by the College of Business to satisfy university electives.
10. Meet Computer Competency Requirements. The computer has become such an important and integral part of business at every level that it is imperative for our students to enter the college with a certain level of demonstrated personal computing skills. Many of the upper-level classes in the College of Business assume this skill base and require their use in completing class assignments. Students will, therefore, be required to demonstrate "computer competency" prior to being admitted to a major in the College of Business.

**"Computer Competency" can be demonstrated in one of the following ways:**

1. Successful completion (C or better) of an introductory computing course such as CSCI 169, Computers in Society, at St. Cloud State University or an equivalent transfer course.
2. Students may elect to learn on their own and demonstrate satisfactory performance of the following skills:
  - a. Knowledge of fundamental computing concepts.
  - b. Utilization of microcomputer-based platform.
  - c. Electronic access to information.
  - d. Electronic spreadsheets.
  - e. Electronic word processor.

**Admission to a Minor Program in Business**

A business major generally cannot also choose a minor in business. Non-business majors who choose to minor in business may take no more than 30 credits of their total university course work in the College of Business. Students selecting a major in colleges other than the College of Business may choose one of the seven minors in business: accounting; business computer information systems; finance; insurance, and real estate; general business; international business; management; or marketing. A minimum GPA of 2.65 is required for admission to the minor.

Students in majors and/or minors other than those offered through the College of Business may enroll in College of Business courses if they meet the following criteria:

1. They are admitted to a major or minor program requiring these courses.
2. For upper-division courses (300-400), they have been admitted to a major program, have completed 60 credits, have a cumulative GPA of 2.65 or higher, and have the appropriate prerequisites.

**Probation policy.** Students officially admitted to a major program in the College of Business who do not maintain a cumulative GPA of 2.0 will be placed on probation effective immediately at the close of the semester (or summer term) in which the GPA falls below 2.0. If a student who is on probation fails to achieve a cumulative GPA of 2.0 in the next semester of university work (or summer term), that student will be suspended from the major program in the College of Business. Students who are in suspended status from their major program in the College of Business may petition for permission to reapply for a major program.

**Residence requirement.** Students majoring in business (Bachelor of Science degree) must complete their last year (30 credits) in residence at St. Cloud State University. Under unusual circumstances, the Dean of the College of Business may grant a modification of this requirement.

**Core Requirements for Business Programs**

All students majoring in business programs must complete these core requirements.

The following courses are part of the prebusiness program. You must be currently enrolled or have completed the following courses before being admitted to a business major:

ACCT 291. Accounting I	3
ACCT 292. Accounting II	3
BCIS 240. Business Statistics I	3
BCIS 241. Business Statistics II	3
ECON 205. Principles of Macroeconomics	3
ECON 206. Principles of Microeconomics	3
MKGB 233. Business Communication Lab	1
MKGB 235. The Legal, Ethical, and Global Environment of Business	3

The following courses may be completed after admission to the major:

BCIS 340. Management Information Systems	3
FIRE 371. Managerial Finance	3
MGMT 301. Introduction to Professional Management	3
MGMT 383. Operations Management	3
MGMT 495. Strategic Management	3
MKGB 320. Introduction to Marketing	3
PHIL 484. Global Business Ethics	3
One of the following:	3
SPC 211. Public Speaking	
SPC 213. Small Group Communications	
SPC 341. Communication in the Work Place	
SPC 441. Organizational Communication	

**Transfer Policies**

In addition to the general requirements of the university and the college, the following special requirements apply to transfer students seeking a business degree:

1. A minimum 2.65 GPA is required of all transfer students seeking admission to a major in the College of Business.
2. Transfer students with a GPA of less than 2.50 will be required to complete 24 credits of non-business classes at SCSU and earn a cumulative GPA of at least 2.65 before admission to a business major.
3. Transfer students with a GPA of less than 2.65, but more than 2.5, will be required to complete at least 18 credits at SCSU with a GPA of at least 2.65 before being admitted to the business major. Students may use 200-level business courses to satisfy the 18-credit requirement.
4. Transfer of credit for business and related courses to be applied to the business core and to the major program shall be limited to those courses completed with grades of "C" or higher.
5. Transfer of business and related courses from baccalaureate degree granting institutions to be applied to the business core and to the major program shall be limited to those courses offered at levels no lower than the levels of comparable courses offered in the College of Business.
6. Transfer of business and related courses from two-year institutions to be applied to the business core and to the major program shall be limited to such courses the College of Business offers at the lower division level (freshman and sophomore years).
7. College of Business accreditation standards generally do not permit business classes to transfer as university electives at SCSU.
8. Obtain an adviser access code from the Student Services Office each semester until officially admitted to the major program.

Validation of credits to be considered for transfer is performed by the Office of Records and Registration consistent with the College of Business transfer policies. Where necessary, transfer students will be required to provide course syllabi or other supporting data for review by the appropriate department(s). A comprehensive examination may be requested to establish competence in a subject. Records of all validation proceedings are maintained in the Dean's Office of the College of Business.

**COLLEGE OF EDUCATION**

A110 EDUCATION BUILDING/255-3023

Dean: Joane W. McKay

Associate Dean: Alice Thomas

**Departments**

Applied psychology  
 Child and family studies  
 Educational administration and leadership  
 Health, physical education, recreation and sport science  
 Human relations and multicultural education  
 Special education  
 Teacher development

**Centers**

Center for Information Media  
 Minnesota Highway Safety Center

**Services**

Curriculum and Technology Center (CTC)  
 Professional field experiences and program services

**Major Programs**

The following majors and minors are offered in the College of Education:

Applied psychology  
 \*Athletic coaching  
 \*Athletic training  
 Community Health  
 \*Dance  
 \*Developmental/adapted physical education  
 Early education  
 Elementary education  
 Health education  
 \*Human relations  
 Information media  
 Physical education  
 Physical education and sport science  
 Recreation  
 Secondary education  
 Special education  
 \*Traffic safety  
 \*Therapeutic recreation

\*Minor only

**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 of 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. 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 continually changing educational environments, 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 College of Education also serves as a resource for all university students, offering courses contributing to the general education program, as well as to programs leading to the Bachelor of Arts and Bachelor of Elective Studies degrees.

**Clinical Experiences**

Supervised, professional clinical experiences are integral to the development of transformative professional educators. Thus, students will participate in a variety of observations, internships, and field experiences designed to help students develop appropriate understandings and capabilities. Various models of field experiences are available for students.

**Teacher Education Programs**

Departments and colleges in the university develop major and minor programs for teacher education (Bachelor of Science degree) which meets the Minnesota State Department of Education standards, Minnesota Statutes, Board of Teaching standards, and Minnesota Board of Education regulations. After approval by appropriate college and university committees and/or councils, the programs are forwarded to the Minnesota Board of Teaching through the Dean of the College of Education. All teacher education programs have been approved by National Council for Accreditation of Teacher Education (NCATE).

When students successfully complete an approved program and apply for a Minnesota teaching license, the Office of Records and Registration verifies program completion. The College of Education recommends the graduate for the appropriate license. This approved teacher education program procedure for licensure is similar to that found in other states.



Students pursuing licensure programs have major responsibility for making certain that they meet concomitant and/or antecedent requirements as well as the academic program requirements for the licensure they seek.

## General Requirements for Teacher Education

### Bachelor of Science Degree

The College of Education prepares students for professional careers in teaching. Teacher preparation programs are available through the following departments: Department of Teacher Development (programs in elementary, secondary and K-12 teaching), Department of Special Education (K-12 special education programs to teach developmentally disabled, specific learning disabled, or emotionally/behaviorally disabled), and Department of Child and Family Studies programs in early education (birth to grade 3), early childhood special education, and parent education. Attainment of a Bachelor of Science degree in education requires each student to:

1. Complete an approved general education program required by the university and an approved teacher licensure program.
2. Be admitted to teacher education.
3. Be admitted to and successfully complete a major program of study, or licensure program.
4. Be admitted to and successfully complete a student teaching or resident teaching experience.

### Admission to Teacher Education

(Apply at the dean's office, A-110 Education Building). Admission standards currently are being reviewed and are subject to change. All students preparing to teach are to make application for admission to teacher education and will be admitted when they have met the following requirements (all requirements also apply to transfer students):

1. Applicants must have earned a grade of "C" or better in each of the following courses:

ENGL 191, Introduction to Rhetorical and Analytical Writing  
SPC 192, Introduction to Speech Communication

2. The applicant must provide proof of having taken the Pre-Professional Skills Test (PPST) in reading, mathematics, and composition prior to enrolling in upper division professional education courses. (Applicants must reach acceptable levels of proficiency in order to be recommended for licensure; tests may be retaken).
3. The applicant must have earned an overall grade point average of 2.50 (on a 4-point scale) or higher in all course work completed. This requirement must be met by all transfer students who apply for admission to teacher education regardless of previous degree status. Applicants must complete a minimum of 36 semester hours of course work, with at least 12 semester hours completed in residence at St. Cloud State University.
4. The applicant must complete the application form for admission to teacher education.
5. Must have taken IM 260 or demonstrated equivalent competency.
6. Applicants must have been admitted to a major program of study or licensure program (see major department/center for details.)

Contact personnel in the dean's office, A-110 Education Building, for forms, general information, and information about basic skills testing.

The college reserves the right to consider as part of admission to student teaching those personal qualities, general health, scholastic achievement, conduct, or other standards seen as appropriately related.



### Graduation

A minimum of 120 semester hours of credit is required for graduation. Candidates for the Bachelor of Science degree in teacher education must meet the following academic standards in order to qualify for graduation:

1. General scholarship—2.50 grade point average.
2. Professional education—see individual departments and centers.

Application for graduation forms are obtained in the Office of Records and Registration. The university academic calendar lists the due dates for each semester.

**Admissions to Major. See the following sections in this bulletin:**

**For:**

Elementary education  
Secondary education

Elementary/secondary  
education (PreK-12)  
Early childhood  
special education

Early education  
Instructional technology  
Parent education  
Special education  
Speech pathology license

**See:**

Teacher development  
Appropriate academic program of  
interest, i.e., art, math, English  
Art, music, health  
or physical education  
Child and Family Studies

Child and Family Studies  
Information Media  
Child and Family Studies  
Special Education  
Communication disorders

### Admission to Student Teaching/Resident Teaching

See the following sections in this bulletin:

**For:**

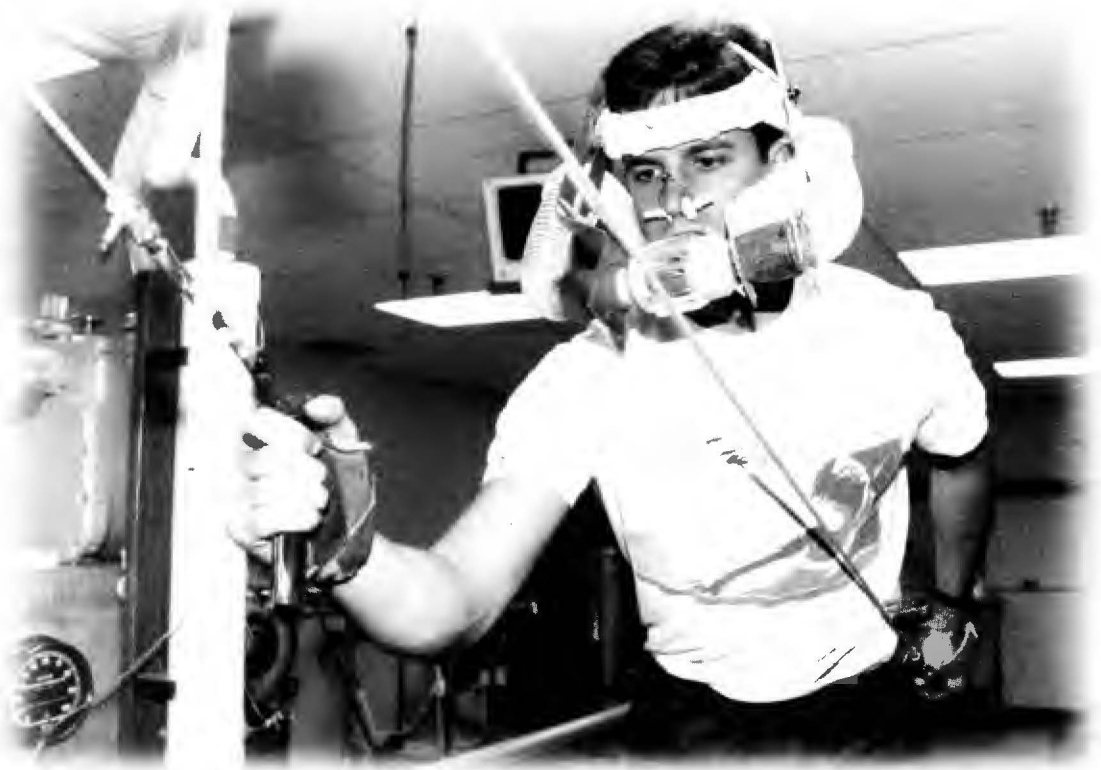
Elementary, secondary  
and K-12 education  
Early education  
Early childhood  
special education  
Parent education  
Special education

**See:**

Teacher development

Child and Family Studies  
Child and Family Studies

Child and Family Studies  
Special Education



## COLLEGE OF FINE ARTS AND HUMANITIES

111 KIEHLE VISUAL ARTS CENTER/255-3093

Dean: Roland Specht-Jarvis

Interim Associate Dean: Sharon Cogdill

### Departments

- Art
- Communication disorders
- English
- Foreign languages and literature
- Mass communications
- Music
- Philosophy
- Speech communication
- Theatre and film studies

### Major Programs

The following majors and minors are offered in the College of Fine Arts and Humanities:

- Art
- Art history
- Communication disorders
- \*Creative writing
- English
- \*Film studies
- \*Foreign languages
- French
- German
- Graphic design
- Mass communications
- Music
- Philosophy
- \*Religious studies
- \*Russian language, literature, and culture
- \*Soviet studies
- Spanish
- Speech communication
- Speech-interdepartmental
- Theatre

\*Minor only

### Interdepartmental Field

Religious studies

### The College

The nine departments in the College of Fine Arts and Humanities provide students with an array of opportunities to enhance their lives by developing critical thinking and problem solving abilities, communications skills, creative talents and professional competencies. Courses offered cover a broad range of subjects, taught by outstanding faculty members, many with international experience and reputation.

The college includes traditional branches of knowledge in addition to professional programs closely linked to those fields. Its programs provide breadth of knowledge as well as depth and proficiency in a single field.

Students in the college have many opportunities to make cultural, artistic and career-oriented contributions on the campus, in the community and far beyond St. Cloud. Musical and theatrical groups perform before audiences ranging from local to international.

Graduates of the college have excelled in many fields, including business, education, visual and performing arts, communications, the professions and public service. An increasing number of graduates are in careers that provide international and intercultural experiences.



## COLLEGE OF SCIENCE AND ENGINEERING

145 MATHEMATICS AND SCIENCE CENTER/255-2192

**Interim Dean:** A.I. Musah

**Associate Dean:** Dale Williams

### Departments

Aviation (formerly technology)  
Biological sciences  
Chemistry  
Computer science  
Earth sciences  
Electrical engineering  
Environmental and technological studies  
Manufacturing engineering  
Mathematics  
Physics, astronomy and engineering science  
Statistics  
Technology (see aviation)

### Service

Planetarium

### Interdepartmental Fields

Environmental studies  
Medical technology  
Nuclear medicine technology  
Sciences

### Pre-Professional Programs

Agriculture  
Chiropractic  
Dental Hygiene  
Dentistry  
Engineering  
Forestry  
Home economics  
Horticulture  
Medical record administration  
Medicine  
Mortuary science  
Nursing  
Occupational therapy  
Optometry  
Pharmacy  
Physical therapy  
Physician assistant  
Podiatry  
Respiratory care  
Veterinary medicine

Comprehensive general science  
Comprehensive physical science  
Comprehensive physics  
Computer science  
\*Data voice communications  
Earth sciences  
Ecology and field biology  
Electrical engineering  
Environmental assessment and management  
\*Environmental studies  
Manufacturing engineering  
Mathematics  
Medical technology  
Meteorology  
\*Microcomputer studies  
Network modeling and simulation  
Nuclear medicine technology  
\*Optics  
Physics  
Statistics  
Technological assessment and management  
\*Technology  
Wildlife management

\*Minor only



### Major Programs

The following majors and minors are offered in the College of Science and Engineering:

Applied computer science  
Aquatic biology  
Aviation  
Biology  
Biology – Teaching  
Biomedical science  
Biotechnology  
Cell biology  
Chemistry  
Comprehensive biology  
Comprehensive earth sciences

### Accreditation/Certification

The chemistry department provides a program approved by the American Chemical Society. The computer science major is accredited by the Computer Science Accreditation Commission of the Computing Sciences Accreditation Board, Inc. (CSAC/CSAB), a specialized accrediting body. The earth sciences department provides a program which is approved by the American Meteorological Society. The program also meets the standards set forth by the National Weather Service. The electrical and manufacturing engineering programs are accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board of Engineering and Technology (ABET). The environmental and technology education program provides a technology education program which is accredited by the Council of Technology Education, The International Technology Teacher Education Association, and the

National Council for Accreditation of Teacher Education (CITE/ATEA/NCATE). The engineering technology-manufacturing emphasis program is accredited by the Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET). The aviation majors are accredited by the Council on Aviation Accreditation (CAA).

### Degree Programs

The College of Science and Engineering offers the following degrees: B.A., B.E.S., B.S., M.A., and M.S. Information concerning the graduate programs is available in the Graduate Bulletin. The College of Science and Engineering in cooperation with the College of Education offers Bachelor of Science programs in biology, chemistry, earth sciences, general science, industrial studies, mathematics, and physical science with emphasis in physical science, chemistry or physics leading to licensure for secondary schools.

### Applied Research Center

The Applied Research Center encourages interaction and joint research between area business/industries and the College of Science and Engineering faculty and students.

### Internship Programs

Each department in the College of Science and Engineering has an internship program. For information on policies and procedures regulating internships in the department of your interest, report directly to the office of the internship director or chairperson of that department.

### Major/minor Applications

You may apply for a major or minor program in the College of Science and Engineering if you have completed a minimum of 16 credits, have attained at least a 2.0 grade point average (C), and meet all departmental requirements. Report to the dean's office and secure instructions and the necessary forms from the dean's secretary. In addition, you are strongly advised to meet and discuss your plans with an intended major faculty adviser (see the dean's secretary for appropriate faculty adviser). You should read the information in this Bulletin regarding requirements for general education, your proposed major, proposed minor, and professional education (if you are entering a teaching field). Students are encouraged to apply for their majors as soon as minimum requirements are met.





**COLLEGE OF SOCIAL SCIENCES**

101 WHITNEY HOUSE/255-4790

**Interim Dean:** Richard D. Lewis**Interim Associate Dean:** Leslie A. Valdes

Students in the College of Social Sciences are interested in the major questions facing the United States and the broader global community. Our majors focus on the collective aspects of human existence whether these occur in whole societies, complex organizations, small groups or individuals. In developing answers to these questions, you will come to see the impact of the social context in which these questions are asked, have a choice among several international programs, and have the broadest range of internship opportunities available on campus. Graduates are able to clearly visualize problems, identify possible solutions, and work with others to implement a chosen solution. These skills make graduates in the social sciences attractive candidates for positions in both the private and public sector. In fact, a study by American Telephone and Telegraph has documented the superior managerial skills of graduates in the social sciences.

**Departments**

- Criminal justice
- Economics
- Geography
- History
- Political science
- Psychology
- Social work
- Sociology and anthropology

**Academic Center**

Center for Community Studies

**Programs**

- Minority studies
- Women's studies

**Interdisciplinary Programs**

- African studies
- American studies
- East Asian studies
- Gerontology
- International relations
- Latin American studies
- Local and urban affairs
- Social science
- Social studies

**Interdepartmental Programs**

- Pre-law
- Public administration

**Major Programs**

The following majors and minors are offered in the College of Social Sciences:

- \*African studies
- American studies
- Anthropology
- \*Community studies
- Criminal justice
- \*East Asian studies
- Economics
- \*Geographic information systems

- Geography
- \*Gerontology
- History
- International relations
- Land surveying/mapping systems
- Latin American studies
- Local and urban affairs
- \*Minority studies
- Political Science
- \*Private security
- Psychology
- Public administration
- Social science
- Social studies
- Social work
- Sociology
- \*Women's studies

\*Minor only



### Accreditation

The social work program is nationally accredited by the Council on Social Work Education.

### Archaeological Computing Laboratory

The Archaeological Computing Laboratory is dedicated to the development and testing of new computer-guided techniques in archaeology and cultural resource management. Student participation and training is an essential part of this mission, and the lab sponsors several courses, internships, and student exchanges every year.

### Center for Economic Education

The Center for Economic Education's general objective is the improvement of economic education programs at the elementary, secondary and college levels of instruction. This office conducts special adult education courses and offers symposiums and in-service workshops in economic education for teachers and curriculum supervisors. The center conducts National Science Foundation, U.S. Office of Education and private foundation supported curriculum and research programs.

### Spatial Analysis Research Center (SARC)

The Spatial Analysis Research Center provides training workshops, and research opportunities in applied geography utilizing geographic information systems (GIS) techniques. Students have access to one of the best equipped graphics computer laboratories in the country. Research and externally funded assistantships are available for qualified students. Internships are available for qualified students. Internships and joint project opportunities are available for both graduate and undergraduate students.

### Central Minnesota Historical Center

The Center collects 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.

### Computer Assisted Telephone Interview Research Lab

The Computer Assisted Telephone Interview (CATI) Research Lab is the home of SCSU Survey, which conducts local, state and national surveys. The lab also is used as a teaching and learning center for faculty and students.

### Minnesota Economic Development Center

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 SCSU and the College of Social Sciences.

### Social Science Research Institute

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.



### Internships

Each department has an internship program. For information, contact the appropriate department's internship director or department chair.

### Licensure

The criminal justice department's professional peace officer education program is certified as a provider of the academic law enforcement licensing core by the Minnesota Peace Officers Standards and Training Board.

## GENERAL EDUCATION REQUIREMENTS

The general education program is the liberal arts part of your degree. This distinguishes a college degree from a career training program. It encourages broad educational experiences, and provides the opportunity for students to explore their interests. Equaling about one-third of the total credits required for the baccalaureate degree, it provides for the development of transferable skills which apply to all career choices. Skills emphasized include communication, research methods, critical thinking and analyzing and synthesizing information.

Students should expect their general education program to:

1. Contribute to their competency in university-level academic skills;
2. Provide for exploration of subjects outside a student's major and minor and demonstrate the interrelatedness of traditional disciplines.
3. Develop and extend their capacity for inquiry and critical judgment.
4. Promote their involvement in the examination of human values.
5. Afford a realistic appreciation of the lives of people from cultures and situations other than their own.

General education courses are offered at all levels of the undergraduate experience, including the junior and senior years. All students are encouraged to work closely with their academic adviser to select the most appropriate general education program and to assure that the basic requirements have been met.

## GENERAL EDUCATION GUIDELINES

### SCSU Semester-based General Education Program

#### I. Core (16 semester credits)

##### CORE 1: ENGL 191

Introduction to Rhetorical and Analytical Writing

##### CORE 2: SPC 192

Introduction to Speech Communication

##### CORE 3: MATH/ STAT 193

Mathematical/Statistical Thinking

##### CORE 4: PHIL 194

Critical Reasoning

##### CORE 5: See Academic Affairs for approved list of courses

Democratic Citizenship

#### II. Distribution (minimum of 24 semester credits)

In two areas, take nine credits, at least six credits from departments in the left-hand column and no more than four credits from departments in the right-hand column. All nine may come from departments in the left-hand column. No more than 4 credits may be taken from any department.

In one area, take six credits, all from departments in the left-hand column. This "short" area must be approved by your adviser. No more than 4 credits may be taken from any department.

#### AREA A: HUMANITIES AND FINE ARTS

*Choose 6-9 credits from the following:*

Art: 130, 131

AMST: 101, 102, 222, 302, 490

English: 101, 184, 201, 202, 203, 215, 216

Foreign Language: (may count two courses in sequence for general education credit)

101, 102, 201, 202; FREN 101,

102, 110, 201, 202; GER 101,

102, 110, 201, 202; JPN 101,

102; RUSS 101, 102, 201, 202;

SPAN 101, 102, 201, 202,

Music: MUSM 100, 101, 111,

123, 125, 126, MUSP 101, 102,

103, Private Lessons: 110-410,

112-412, 114-414, 116-416, 118-

418, 120-420, 122-422, 124-424,

126-426, 128-428, 130-430, 132-

432, 134-434, 138-438, 140-440,

142-442, 144-444, 148-448;

Ensembles: 151-164, 258, 360,

Philosophy: 111, 112, 113, 114,

115

Speech Communication: 212,

221, 241, 322, 332

Theatre and Film Studies: 140,

148, 175, 260, 270

*No more than 4 credits from the following:*

Communication Disorders: 130,

171, 220

Information Media: 101, 204, 260

Mass Communication: 146, 220,

273, 274, 275

Reading: 120

Religious Studies 100

#### AREA B: NATURAL SCIENCES

*Choose 6-9 credits from the following:*

*Include one laboratory course*

Biological Sciences: 101, 102,

103, 104, 105, 106

Chemistry: 101, 140, 207, 210

Computer Science: 169

Earth Science: 104, 105, 106, 109

Microcomputer Studies: 169

Physics/Astronomy: PHYS 101,

103, 208; ASTR 106, 107, 120

*No more than 4 credits from the following:*

Aviation 101, 107, 207

Electrical Engineering: 101, 102

Environmental & Technological

Studies: 186, 192, 193, 260, 285

Manufacturing Engineering: 101

Mathematics: 105, 211

## AREA C: SOCIAL AND BEHAVIORAL SCIENCES

**Choose 6-9 credits from the following:**

Anthropology: 150, 159, 198, 240  
Applied Psychology: 101, 384  
Area Studies: (AFST 250; CS 201; EAST 363, 364; LAST 250, 350; SOV 100)  
Economics: 201, 205, 206, 350, 381  
Geography: 101, 111, 273, 275, 372  
History: 101, 105, 106, 140, 141, 150, 210, 211  
Political Science: 101, 111, 251, 337  
Psychology: 115, 225, 240, 325  
Sociology: 160, 261, 268, 277  
Social Science: 104, 204, 301, 460, 470

**No more than 4 credits from the following:**

Child and Family Studies: 220, 260  
Criminal Justice Studies: 100, 101, 111  
Education: 250, 374  
FIRE: 201  
Health, Phy Ed, Recreation and Sport Science: 125, 190, 393  
Human Relations: 101, 201, 206  
Local and Urban Affairs: 200  
Marketing and General Business: 100, 200, 230  
Management: 260, 261  
Minority Studies: 201, 350  
Social Work: 211  
Special Education: 403  
Women's Studies: 201

## MULTICULTURAL, GENDER AND MINORITY STUDIES (MGM) COURSES

AFST 250  
AMST 222  
ANTH 150, 159, 240  
ART 131  
AVIT 107  
ASTR 120  
BIOL 106  
CFS 260  
CJS 111  
COMM 146, 275  
ECON 350  
ED 250, 374  
ENGL 203, 215, 216  
ETS 193  
GEOG 101, 111  
HIST 106

HURL 101, 201, 206  
IM 204  
JPN 101, 102  
LAST 250, 350  
MINS 201, 350  
MUSM 125  
PHIL 111, 112  
POL 337  
PSY 225  
REL 100  
SOC 261, 268  
SOV 100  
SPC 332  
SPED 403  
SW 211  
WS 201

**Double Counting:** A student may count a course for credit in the general education program and in the major if the course is a requirement for that major. The credits count only once towards graduation.

**Waivers:** If a student takes six credits in a department which are not general education courses, the student may waive three credits of general education in that same department. In foreign languages, nine credits may waive six. This does not reduce the total credits required for graduation.

**Check with the individual department. Not all departments allow waivers and double counting.**

## III. University Requirements

**Multicultural, Gender and Minority Studies.** Each student must complete three courses designated MGM. Students may take no more than 1 course from any one department in the completion of their MGM designated courses. See undergraduate bulletin for a list of currently approved courses.

**Physical Education.** Each student must complete a 1 credit course in wellness and fitness (PESS 122). See the description in the Bulletin or contact the Department of Health, Physical Education, Recreation and Sport Science, HaH 227, 255-2155.

*Note: Applies to students who have not completed the P.E. requirement under the quarter system.*

**Upper Division Writing:** Each student must complete one course designated as writing intensive within the major at the 300-400 level. See individual departments for a list of courses approved in each major. **NOTE:** Applies only to new students entering in or after Fall Semester 1998.

**Exceptions.** Limited exceptions to the general education program requirements may be approved whenever it can be determined that the program objectives would be better achieved through an alternate selection of courses. Petition forms are available from the Office of Academic Affairs. A copy of the students' general worksheet or major application form must be submitted with all petitions and special request forms. In addition, a graduation application review analysis form is required if the request relates to graduation.

## Competencies

**Competency in writing skills** may be demonstrated through an examination program provided by the English department. (1) The English 191 test-out program administered by the English department waives the requirement but does not grant credit. The test-out examinations are offered several times a year without charge. Information about test dates and advance sign up is available at the English department.

**Competency in speech communication skills** may be certified by a speech communication faculty evaluation of a 36-week or longer speech course(s) completed in the 10th, 11th, or 12th grades in high school, or extensive out-of-class experience and training prior to college. Students interested in demonstrating competency should contact the speech communication department.

**Competency in mathematical or statistical thinking** will be certified by the Department of Mathematics and Statistics.

**Competency in critical reasoning** will be certified by the Department of Philosophy.

**Competency in Democratic Citizenship** will be certified by the College of Social Science.

Students interested in demonstrating competency in any of these areas should contact the respective department. Students demonstrating competency will be exempt from that part of the requirement. This does not alter the total number of credits required.

**Transfer students.** Students who transfer with an Associate of Arts degree have satisfied the general education requirements. Completion of another institution's Minnesota Transfer curriculum requirements will also satisfy the general education requirements. Associate of Science and Associate of Applied Science degrees do not meet the general education requirements, though individual courses will be evaluated to determine if they meet general education requirements.

**ACCOUNTING (ACCT)**

210 BUSINESS BUILDING/255-3038

*Also see College of Business description and requirements.*

**Chairperson** Kate Mooney. **Faculty:** Bain, Busta, R. Carlson, Cheh, Gaumnitz, S. Johnson, Lere, D. Lu, Marrer, McLean, K. Mooney, Olsberg, Roser, Schwieger, Scofield, Smith, Sundby, Wells.

The Department of Accounting offers programs to students interested in professional careers in public accounting, industry, not-for-profit organizations, governmental bodies and teaching. Courses offered emphasize the development of students' analytical capabilities and understanding of the usefulness and limitations of accounting.

Following graduation, students frequently apply for professional certification. St. Cloud State University graduates are eligible to sit for the Certified Public Accountant exam, which is administered by the Minnesota State Board of Accountancy; the Certified Management Accountant exam which is administered through the Institute of Management Accountants and the Certified Internal Auditor exam which is administered by the Institute of Internal Auditors.

**BACHELOR OF SCIENCE****Major**

A major in accounting includes the business core plus the following program:

**Accounting (36)**

ACCT 380, 381, 382, 390, 482, 486, 488

15 credits from: ACCT 444, 481, 483, 484, 487, 490, MKGB 436, BCIS 350, 443, 453, or at most one course from 300- and 400-level courses in BCIS, FIRE, MGMT, MKGB and 400-level courses in ECON.

**Accounting Minor (24)**

MKGB 235

ACCT 291, 292, 380, 381

9 credits from ACCT, BCIS, FIRE MGMT, MKGB chosen with the advice of adviser.

**Notes:**

1. Non-business majors who chose to minor in business may take no more than 30 credits of their total university work in the College of Business.
2. Business students should consult their adviser before enrolling in lower division business courses due to the 50% rule.
3. Only students admitted to a business major or minor program and who have completed 60 semester credits (junior standing) may enroll in 300- and 400-level courses. Department permission required for all other students.
4. Selected accounting courses are an integral part of the International Business programs described in this bulletin.

**COURSE DESCRIPTIONS****291. Accounting I**

Accounting as a process of providing useful 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.

**292. Accounting II**

The statement of cash flows and financial statement analysis. Accounting information as a planning, analysis, and control tool facilitating decision-making. Prereq.: 291. 3 Cr. F, S, SUM.

**371. Financial Accounting and Analysis**

Financial statements. Accounting principles and procedures. Foreign financial statements. Prereq.: 292. 3 Cr. F, S.

**380. Accounting Information Systems I**

Accounting transactions, microcomputer skills for the accounting environment, and the fundamentals of accounting information systems and controls. Prereq.: "C" or better in 292. 3 Cr. F, S, SUM.

**381. Intermediate Accounting I**

Financial accounting, standard-setting, and the basic financial statements. Revenue recognition, cost allocation, cash flows, and current assets and liabilities. Prereq.: "C" or better in 292; prerequisite or concurrent registration in 380. 3 Cr. F, S.

**382. Intermediate Accounting II**

Accounting theory and literature, long-term assets and liabilities, shareholders' equity issues, and specialized topics. Prereq.: "C" or better in 380 and in 381. 3 Cr. F, S.

**390. Managerial Accounting**

Cost accounting systems, development of internal accounting data, and use of this information to assist internal decision making. Prereq.: 380; BCIS 241. 3 Cr. F, S, SUM.

**444. Internship in Business**

Participation in a paid full-time position with a cooperating business, governmental, or civic organization whose program has been approved in advance by the department in which the student has an approved major. Credits provided upon completion of all requirements. A maximum of 3 credits may apply as electives in the major program. Permission of department. 3-12 Cr. F, S, SUM.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

*Additional research project(s) or presentation(s) will be required of graduate students in the following 500 level courses: 581, 582, 583, 584, 586, 587, 588, 590, 593, 598.*

**481/581. Advanced Accounting**

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

**482/582. Business Taxation**

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

**483/583. Personal Taxation**

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

**484/584. 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

**486/586. 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.

**487/587. Operational Auditing**

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

**488/588. 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.

**490/590. 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.

**493/593. International Accounting**

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



**498/598. 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, MKGB 320. Permission of department. 3 Cr. F, S.

**AFRICAN STUDIES (AFST)**

273 Stewart Hall/255-2003 or 255-3165

*A program in the Department of History.*

**Director** Peter F. Nayenga. **Faculty committee:** Anthony Akubue, Dick Andzenge, Bassey Eyo, Amde Habte, Tommie Lee Jackson, Robert Johnson, Bayo Lawal, Al-Hassan Musah, Peter Nayenga, Thomas O'Toole, John Peck, Geoffrey Tabakin, Jerome Pasela (ex officio).

The African Studies program exists to enhance campus awareness of African cultures, as well as to provide a framework within which students may integrate the specific knowledge they gain about Africa from the various courses they take. African Studies cooperates with campus and community groups and individuals to develop linkages of mutual benefit with Africa. The African Studies program is actively exploring possibilities to establish linkages with academic institutions in Africa. Students who are interested in programs being developed in Africa should consult the director.

**BACHELOR OF ARTS AND BACHELOR OF SCIENCE****Minor (27)**

Core (15 credits) AFST 250, ENGL 307, HIST 370, 371; ANTH 357. The remaining 12 credits can be chosen from the following courses when the focus is Africa: HIST 486-586, ECON 480-580, ENV 320, FREN 341, 411, and 414-514, SSCI 470-570, CJS 325, AFST 370. Other courses which have substantial African content may be substituted with director's permission.

**BACHELOR OF ELECTIVE STUDIES****Minor (27)**

Students may choose from courses with substantial African content in consultation with the director.

**COURSE DESCRIPTIONS****+250. Introduction to African Studies (MGM)**

Geography, history, politics, society, ecology, economics, culture, foreign policy and contemporary issues. 3 Cr. F

**370. Contemporary Issues in Sub-Saharan Africa**

Social, economic, political, environmental and international issues facing one or more sub-Saharan African country. Prereq.: 250 or junior status or consent of instructor. 3 Cr. S.

**ALLIED HEALTH PROGRAMS**

262 MATHEMATICS AND SCIENCE CENTER/255-2039

*A program in the Department of Biological Sciences.*

*Also see College of Science and Engineering description and requirements.*

Allied health programs offered by St. Cloud State University include medical technology and nuclear medicine technology. Consult the individual program descriptions in this bulletin.

A cytotechnology internship also is available. This internship can be applied to a Bachelor of Elective Studies degree in biology. See the medical technology adviser.

**AMERICAN STUDIES (AMST)**

365 STEWART HALL/255-3912

*A program of the Center for Community Studies. Also see College of Social Sciences description and requirements.*

**Director** William T. Morgan. **Faculty** Mehrhoff, Mittlefehldt, Morgan, E. Simpson, L. Tripp.

American Studies attempts to understand American life and values by drawing upon the methods and materials of several disciplines (e.g., literature, history, art, architecture, music, popular culture, the social sciences). The focus of American Studies is to interrelate these various disciplines, and to make connections among the many cultures that make up the American mosaic.

Students may elect the liberal arts major, the heritage preservation emphasis, or the popular culture emphasis. The liberal arts major provides a liberal arts education for those whose interests cross disciplinary boundaries, and focuses on the diversity and complexity of the American experience. Each program is tailored to the interests of the individual student.

The heritage preservation emphasis examines ideas and artifacts from the American past deemed worthy of preservation. This emphasis presents a broad understanding of the American past, including the everyday life of people. It includes art and architectural history and theory, family history, preservation philosophy, and through the anthropology program, the principles and practices of museum work and curators.

The popular culture emphasis provides an interdisciplinary analysis of popular culture and the role that it plays in society. Drawing from anthropology, English, film studies, mass communications, music, and theatre, the focus is on developing both an appreciation and a critique of the role that the popular plays in our lives.

A bachelor's degree in American Studies can lead to careers in government service, the media, business, history preservation or museum work. It also is excellent preparation for graduate school, the law, and library work. The B.S. leads to secondary school studies licensure.

**BACHELOR OF ARTS****Major (38)**

•Required: AMST 101 or 102, 222, 302 or 490, 494, 496, CS 333.

•Electives in American culture and society (with recommendation of adviser):

- History: 3 Cr.
- Social Sciences: 6 Cr.
- Humanities: 9 Cr.

•At least two (2) electives should focus on cultural diversity and/or global perspectives.

•The study of a language in addition to English is strongly recommended.

**Major-Heritage Preservation (38)**

Students interested in majoring in American Studies with an emphasis in heritage preservation may do so by including the following in their program:

- AMST 101 or 102, 205, 390, 444 (6 Cr.), 470, 494, 496; CS 333
- ART 435 or 436; HIST 346, ANTH 267 or 275, and one 3-credit 200+ ANTH, HIST, or GEOG course.

**Major-Popular Culture Emphasis (38)**

Students interested in majoring in American Studies with an emphasis in popular culture may do so by including the following in their program:

- AMST 101 or 102, 222, 302 (Popular Culture), 390, 494, 496, CS 333

- ANTH 198, COMM 220, THFS 260
- Nine (9) credits from the following: COMM 273, 274, 320, 386; ENGL 333; MUSM 126, 229; THFS 264, 270, 364, 451, 452, 453

#### Minor (18)

- AMST 101 or 102, 222
- AMST electives: 6 Cr.
- Electives in American cultures and society (with recommendation of adviser)
  - Humanities: 3 Cr.
  - History/Social Sciences: 3 Cr.

#### Minor—Heritage Preservation (18)

Students wishing to minor in American studies with an emphasis in heritage preservation may do so by including the following: AMST 101 or 102; AMST 205, 470; ART 435 or 436; ANTH 267 or 275; HIST 346.

#### BACHELOR OF SCIENCE (Teaching)

SCSU offers a variety of majors that lead to social studies licensure in Minnesota.

The University's approved program currently includes: SSCI 104, ANTH 150, ECON 201, POL 111, GEOG 252, HIST 285, PSY 324, POL 201, SOC 304, SSCI 421, SST 453.

Individuals who plan to seek this licensure should consult the social studies licensure coordinator in the College of Social Sciences immediately upon enrolling at SCSU or changing to this field to determine the current plan for the social studies licensure competencies to be developed and demonstrated.

This program is periodically reviewed and updated. Changes will be noted in the on-line catalog as they are approved. The social studies licensure coordinator will assist students with the changes.

#### Social Studies Major (29)

##### American Studies Emphasis

- AMST 101 or 102, 222, 390, 494, 496; CS 333
- American History (6 Cr.)
- Global History (6 Cr.)

#### Elementary Education Minor (18)

- AMST 101 or 102, 222
- Two AMST Electives (6 Cr.)
- 1 Humanities Elective (3 Cr.)
- 1 Social Science/History Elective (3 Cr.)
- Recommendation of Adviser

#### BACHELOR OF ELECTIVE STUDIES

Requirements for the B.E.S. major and minor are the same as the requirements for the B.A. major and minor.

#### COURSE DESCRIPTIONS

##### +101. American Experience I

Interdisciplinary exploration of significant cultural trends and patterns in pre-20th century American life. Instructors may focus on specific themes. Need not be taken in sequence. 3 Cr. F, S.

##### +102. American Experience II

Interdisciplinary exploration of significant cultural trends and patterns in 20th century American life. Instructors may focus on specific themes. Need not be taken in sequence. 3 Cr. F, S.

##### 205. Heritage Preservation

Basic theories, methods, and practical problems of heritage preservation, including historic sites, buildings, artifacts and lifestyles. 3 Cr. F.

##### +222. Diversity in the American Experience (MGM)

Interdisciplinary exploration of selected aspects of the culture and experiences of women and minority groups within the U.S. Focus on

developing a theoretical and practical understanding of the concept of diversity as it relates to the American experience. 3 Cr. F, S.

##### +302. Topics in American Studies

Small group discussion focusing on various trends and concepts in American culture from political thought to popular music. Specific titles to be listed in the class schedule. May be repeated under different topics to a maximum of 6 Cr., but not for general education purposes. 3 Cr. F, S.

##### 390. Readings in American Studies

Primary texts in American culture and society. Prereq.: CS 333 or consent of instructor. 3 Cr. F, ALT.

##### 444. Internship

Should be taken prior to or concurrent with AMST 496. Required of majors wishing to declare heritage preservation emphasis. Optional for other majors. Must be arranged in consultation with adviser. 3-12 Cr. DEMAND.

##### 494. Theories of American Studies

Examination of several different theories and methods of interpreting American culture. Prereq.: AMST 390 or permission of instructor. 3 Cr. S, ALT.

##### 496. Seminar in American Studies

Interdisciplinary research on a problem in American culture or society, using primary materials and resulting in the senior thesis. Prereq.: AMST 494 or consent of instructor. 2 Cr. S, ALT.

#### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

##### 450/550. Urban Heritage

Study of the built environment of selected American cities, including St. Cloud and St. Paul, from historical and esthetic perspectives with special emphasis upon preservation. AMST 470-570 strongly recommended. 3 Cr. S.

##### 470/570. 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.

##### +490/590. Contemporary American Cultures

An interdisciplinary exploration of one of the cultures in contemporary American through its political, philosophical, literary and artistic creations. Specific titles to be listed in class schedule. May be repeated under different topics to a maximum of 6 Cr., but not for general education purposes. 3 Cr. S.

#### ANTHROPOLOGY (ANTH)

262 STEWART HALL/255-2294

*A program in the Department of Sociology and Anthropology. Also see College of Social Sciences description and requirements.*

**Coordinator:** Robert Lavenda. **Faculty:** R.B. Lane, Lavenda, O'Toole, Schwerdtfeger.

Anthropology is the study of human nature, society and culture. It is a scholarly discipline which aims to describe, in the broadest possible sense, what it means to be human. Our program is designed to prepare students in all branches of anthropology: archaeology, the study of the remains of ancient ways of life; biological anthropology, the study of human biology and evolution; linguistic anthropology, the study of human language and how it works; and cultural anthropology, the study of the ways of life of contemporary human groups all over the world.

The anthropology major is designed so that students are prepared for graduate study in anthropology, professional training in other fields, or other careers in which a broad base of understanding the human condition is useful.

The anthropology program is unique in that it requires students to gain actual field experience through carefully directed field schools in archeology and cultural anthropology.

#### BACHELOR OF ARTS

##### Anthropology Major (42)

Anthropology Core: 9 Cr.

ANTH 265, 267, 269

Theory and Practice: 6 Cr.

ANTH 367, 480

Research sequence: 12 Cr.:

Cultural sequence: ANTH 402, 472, 491,

or

Archaeology sequence: ANTH 403, 472, 490

World Culture Area Course: 3 Cr.

Select one course from among ANTH

355, 356, 357, or 390.

A course in American Indian societies and cultures may be substituted.

*Note: It is expected that students pursuing the cultural research sequence will select a contemporary area course and those pursuing the archaeology research sequence will select a pre-history course.*

Electives: 12 Cr.

Select from ANTH courses at the 200-level or above. No more than 3 Cr. may be taken at the 200 level. ANTH 390 or 391 may be repeated for a maximum of 9 credits each.

*Note: Completion of SOC 304 is strongly recommended.*

##### Anthropology Minor (21)

Anthropology Core: 9 Cr.

ANTH 265, 267, 269

World Culture Area: 3 Cr.:

Select one course from among ANTH 355, 356, 357, 390

Electives: 9 Cr.

Select from ANTH courses at the 200-level or above. No more than 3 Cr. may be taken at the 200-level. ANTH 390 or 391 may be repeated for a maximum of 6 credits each.

#### BACHELOR OF SCIENCE

##### Social Studies Major – Teaching

Anthropology Emphasis (30)

ANTH 267, 367, 480, 490 or 491 (15 Cr.)

Electives: 12 credits of ANTH 200-400 level courses

HIST 106 or 150

#### COURSE DESCRIPTIONS

##### +150. Introduction to Anthropology (MGM)

What it means to be human. Human nature through time and around the world; human evolution, culture, kinship, religion, politics, economics, and language. 3 Cr. F

##### +159. Indians of the Americas (MGM)

Origins, distribution and development of the human cultures found in North, Central and South America. Impact of European contact on the indigenous people of the Americas. 3 Cr. S.



##### 165. Human Origins

Summary, based on the last 7 million years of fossil evidence, of the major biological events leading to the development of modern human beings. 3 Cr. S.

##### 190. Survey of World Archaeology

The origins and development of human cultural systems from the earliest stone ages through the development of civilization. Cultural evolution, with specific examples from around the world. 3 Cr., F

##### +198. The Anthropology of Modern American Life

What makes up a distinctive American culture? Popular culture, public spectacle, sport, work, and education in the United States today. 3 Cr. S, ALT.

##### +240. Anthropology of Popular Fiction (MGM)

Content analysis of popular fiction in cultural terms. Cultural analysis and special topics of popular novels and films. 3 Cr. F, ALT.

##### 255. Anthropology and the Arts

The arts, including music, drama, dance, plastic, and graphic arts of the non-western world and what they reveal about that world and ours. The relation of the arts to other aspects of culture; the arts as communication; the arts as molders of culture. 3 Cr. S., ALT.

##### 265. Introductory Bioanthropology

Physical anthropology; variations, adaptations, and adjustments of the human species. 3 Cr. F

##### 267. Introductory Cultural Anthropology

Culture in the human experience, how anthropologists study it, and how it changes. Its dimensions in societies around the world. 3 Cr. F, S.

##### 269. Introductory Archaeology

The scientific study, based on material remains, of the human past; research activities, including problem orientation, site location, excavation, analysis and interpretation. 3 Cr. S.

##### 275. Introduction to Museology

The operation and functions of anthropology museums for education, research, and preservation; practicum in various aspects of museum work including preparation of exhibits, cataloging, conservation. Prereq.: 267 or consent of instructor. 3 Cr. F

##### 302. Food, Society, and Culture

The production, provision, and consumption of food which occupies human beings everywhere. The social and cultural significance of food, including the logic of food systems, food and reproduction, food and gender, food and power, and how food creates and symbolizes collective life. Prereq.: 267. 3 Cr. F, ALT.

**305. A Global World**

Effects of the modern world on tribal and peasant peoples. Colonialism, neocolonialism, sacred and secular missionary activity, industrialization, multinationals, tourism. The responses of native peoples. Prereq.: 150 or 267, or permission. 3 Cr. S.

**325. Human Ecology**

An anthropological study of the interrelationship between human groups and their biological environments. Critical analysis of rapid population growth and urbanization in the context of scarce resources. Prereq.: 150 or 267. 3 Cr. S., ALT.

**346. Sex and Gender**

The social and cultural construction of sex and gender cross-culturally. Examples from selected societies. Prereq.: 150 or 267. 3 Cr. S., ALT.

**355. Society and Culture in Latin America**

Aspects of society and culture in modern Latin America. Equal emphasis will be placed on exploring distinctive features of Latin American social and cultural patterns and examples drawn from a variety of Latin American societies. 3 Cr. F, ALT.

**356. Peoples and Cultures of Asia**

Survey and analysis of cultural diversity and unity on the continent of Asia. Prereq.: 267. 3 Cr. S., ALT.

**357. Society and Culture in Africa**

Society and culture in modern Africa, with attention to diversity of cultures and contemporary social and cultural processes. Prereq.: 267. 3 Cr. S., ALT.

**362. Urban Anthropology**

An introduction to use of anthropological theory and methods in the urban milieu. Prereq.: 267. 3 Cr. F, ALT.

**363. Applied Anthropology**

Applications of anthropology to problems of social change. Emphasis on ethical problems inherent in social engineering. Prereq.: 267 3 Cr. F, ALT.

**366. Language and Culture**

The anthropological study of language. Language as a system. Language in social context. Language and thought. Speech as social interaction. Ethnolinguistics and cultural metaphors. Prereq.: 150 or 267 or permission. 3 Cr. F, ALT.

**367. The Ethnographic Enterprise**

Anthropological writing and recent directions in interpretation through reading of classic and contemporary works on different societies. Prereq.: 267. 3 Cr. S.

**384. Business and World Culture**

Role of culture in influencing business practices and cross-cultural business interaction. Culture theory and its application to the business world. The impact of international business on cultural process and national development. Prereq.: 267. 3 Cr. F, ALT.

**388. Myth, Magic and Religion**

A cross-cultural investigation of religion. Anthropological approaches to origins and functions of religion, myth, ritual, magic and witchcraft, dynamics of religion. Prereq.: 150 or 267 or permission. 3 Cr. S., ALT.

**390. Topics in Archaeology**

Selected topics-either a real (e.g. European, North American, Mesoamerican), temporal (e.g. historic, prehistoric, classical), or topical (e.g. experimental, cognitive, environmental)-in contemporary anthropological archaeology. Different topics may be repeated for a maximum of 9 credits. 3 Cr. F, S.

**391. Topics in Sociocultural Anthropology**

Topics in subdisciplines of sociocultural anthropology. Prereq.: 267. Different topics may be repeated for a maximum of 9 credits. 3 Cr. DEMAND.

**444. Internship**

A maximum of 6 credits may be used toward a major; 3 credits used toward a minor; remainder will be used in general electives. 1-9 Cr. DEMAND.

**471. Cognitive Anthropology**

Personality development in context of cultural patterns for behavior in

both preliterate and modern societies. Prereq.: 267. 3 Cr. SELF-PACED.

**472. Anthropological Analysis and Interpretation**

A survey of various anthropological methods and techniques of data analysis and interpretation obtained from prior field work. Prereq.: 490 or 491 or permission. 3 Cr. F

**480. Theory and Practice in Anthropology**

History of anthropological thought. Emphasis on basic problems and theoretical approaches in various subdisciplines of anthropology, relation of theory to practice. Prereq.: 367. 3 Cr. S.

**490. Field Methods in Archaeology**

Field research in archaeology. Prereq.: 150 or 267 or SOC 160 or consent of instructor. 1-6 Cr. ALT., SUM.

**491. Field Methods in Ethnography**

Field research in social and cultural anthropology. Prereq.: 150, 267, SOC 160 or consent of instructor. 1-6 Cr. ALT., SUM.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**402/502. Ethnographic Research Methods**

Practice and theory of ethnographic research. Research design, participant observation, interviewing, questionnaires, field note taking and management, data analysis, ethics. Hand on exercises. Prereq.: 267, 3 addl. Cr., or permission. 3 Cr. S., ALT.

**403/503. Research Methods in Archaeology**

Basic categories of archaeological methodology; general research, field, analytical, and quantitative methods. Prereq.: 269, 390, and/or permission. 3 Cr. S., ALT.

**463/563. Seminar**

Discussion and readings in advanced anthropology. A specific topic selected each time offered. May be repeated. Prereq.: 150 or permission of department chairperson. 3 Cr. DEMAND.

**474/574. 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. Prereq.: SOC 160 or 267, or consent of instructor. 3 Cr. S., ALT.

**481/581. Cultural Resource Management**

Management of ethnic, historic, and prehistoric cultural resources; emphasis on 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.

**APPLIED PSYCHOLOGY (APSY)**

A-253 EDUCATION BUILDING/255-3131

*A department in the College of Education.*

**Chairperson:** Avelino Mills-Novoa. **Faculty:** Gasparotto, Hoover, Hotz, Jensen, Lesar, Marcattilio, Mason, McGrew, Merchant, Mills-Novoa, Murphy, Peterson, Petrangelo, Preble, Renn, Rudrud, Schulze, Vesely

The Department of Applied Psychology offers students an opportunity to develop the skills necessary to pursue a career in the human service professions or business and industry. In addition, students are prepared to continue their education through graduate work in Applied Psychology. Students should get updated information from the Applied Psychology office (A-253). The Department of Applied Psychology offers a Bachelor of Science in Applied Psychology, a minor in Applied Psychology, a Bachelor of Elective Studies major and minor, and Chemical Dependency Certificate.

## BACHELOR OF SCIENCE

Students majoring in Applied Psychology may choose APSY Major, APSY Major- Chemical Dependency Program, or APSY Major - Individualized program.

### APSY Major (45 Credits)

APSY 101, 102; PSY 115, STAT 103  
APSY 262, 323, 324, 325, 330, 384, 433, 327 or 434, 419, 476, 326 or 444 Elective: (3 Cr.)

### APSY Major - Chemical Dependency (82 Credits)

APSY 101, 102; PSY 115, STAT 103  
APSY 262, 323, 324, 325, 327, 330, 384, 428, 433, 419, 476 APSY 230, 340, 402, 439, and 484  
APSY 445 and 446 (Internships)

Admission into the Chemical Dependency Program requires a separate application and interview process. Application materials and information about the program and admissions procedures may be obtained by contacting the Department of Applied Psychology, EB-A253, phone (320) 255-3131. Students interested in the Chemical Dependency Certificate (59 credits) only should also contact the APSY Department.

Students in the Chemical Dependency Program must complete the following requirements:

- Complete the application materials obtained through the Department of Applied Psychology.
- Successfully complete a personal interview with faculty from the Chemical Dependency 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 quarter.

### APSY Major - Individualized (32 Credits)

APSY 101, 102, PSY 115, STAT 103.  
22 credits of electives in APSY or PSY chosen with consent of an applied psychology adviser.

### APSY Minor (27 Credits)

APSY 101, 102, PSY 115  
APSY 262, 323, 324, 330, 384, and 419  
3 credit elective in APSY or PSY

### Internships

Internships are available in Applied Psychology (6-12 credits). Students are encouraged to plan their internship with the Applied Psychology internship coordinator at least two quarters prior to registration.

### Honors in Applied Psychology

The department honors program provides students with an opportunity to receive the level of faculty/student interaction experienced at smaller undergraduate colleges. Information about the application process and the program requirement is available from the department office.

## BACHELOR OF ELECTIVE STUDIES

### Major (32 Credits)

32 credits of APSY or PSY courses with consent of an Applied Psychology adviser. (At least 16 credits must be in Applied Psychology.)

### COURSE DESCRIPTIONS

#### +101. Applying Psychology.

Applications of psychological principles to self and society as used in specialty areas. Overview of personal growth issues (e.g. stress, relationships, and careers). 3 Cr., F, S, SUM.

#### 102. Applying Psychology Lab.

Exploration of personal growth and adjustment and application of processes for promoting personal change. 1 Cr., F, S, SUM.

#### 125. Career Planning Seminar.

Consideration of careers in light of students' interests and values. 1-3 Cr. DEMAND.

#### 135. Developing Effective Relationships with Children.

Behavioral techniques in working with children. 3 Cr. DEMAND.

#### 230. Theories of Chemical Dependency.

Theories of causes, social implications, and prevention. 3 Cr. F.

#### 235. Addictive Behaviors.

Acquisition, maintenance, and treatment of addictive behaviors from a psychological and biological perspective. Alcoholism and other drug addiction, eating disorders, compulsive gambling, workaholism, dependent relationships, and sexual addiction. Prereq.: 101. 3 Cr. DEMAND.

#### 262. Human Growth and Development.

A life-span approach to growth and development; physical, intellectual, emotional, and social phases as related to total growth. 3 Cr. F, S, SUM.

#### 323. Introduction to Counseling Practice.

Basic concepts that apply to the helping professions. Focus will be on psychological skills necessary for work with individuals and groups. Co-req.: APSY 324. Prereq.: APSY 101, PSY 115. 3 Cr. F, S, SUM.

#### 324. Counseling Theories Laboratory.

Selected theories for integration into APSY 323. These may include the strengths and limitations of insight oriented and action oriented approaches. 1 Cr. F, S, SUM.

#### 325. Helping Skills.

Principles and theories of individual interviewing and group processes. Knowledge of clients and human service situations through observation, role playing and coached clients. Prereq.: APSY 323, 324. 3 Cr. F, S, SUM.

#### 326. Field Work.

Special arrangement with supervising professor, department chairperson, and field supervisor. 1-3 Cr. F, S, SUM.

#### 327. Group Process and Practice.

Group dynamics including management and facilitation of groups in psychological settings. Prereq.: APSY 325 or permission of instructor. 3 Cr. F, S.

#### 330. Principles of Behavior.

An introduction to behavior principles with emphasis on the experimental and applied analysis of behavior. Lab. 3 Cr. F, S.

#### 331. Hypnosis and Related Psychological Phenomenon.

Hypnotic and related psychological phenomena: peak experiences, psychedelic experiences, transcendental experiences, mystical experiences, etc. 3 Cr. DEMAND.

#### 340. Chemical Dependency Issues: Special Populations.

Effects of chemical use, abuse, and dependency on adolescents, women, the elderly, and minority groups. Prereq.: 230, 439, 3 Cr. F.

#### 361. Introduction to Educational Psychology.

Psychological theories, principles, and research applied to the educational settings, including measurement, standardized tests, instrument construction, and evaluation and assessment of student learning. Prereq.: 262. 3 Cr. F, S, SUM.

#### 362. Educational Measurement and Test Construction.

Principles of measurement, interpretation of standardized tests, construction of teacher-made achievement tests, evaluating and grading outcomes of learning. Prereq.: APSY 262. 3 Cr. F, S, SUM.

#### +384. Individual and Group Differences.

The nature, extent, and causes of individual and group differences; the methodological problems of measuring human differences. 3 Cr. F, S.

#### 402. Professional Issues in Chemical Dependency.

Experience in chemical dependency treatment agencies, documentation of chemical dependency treatment procedures. Human Immuno Deficiency Virus and other disease issues relevant to the chemically dependent population, rules and regulations in the field of chemical dependency. 3 Cr. S.



**419. Professional and Scientific Ethics in Psychology.**

Ethical standards for psychologists as set by national and state associations, organizations, agencies, courts, and legislative bodies. Enrollment is limited to seniors and to others by permission of instructor. 3 Cr. F, S, SUM.

**440. Multicultural Perspectives in the Human Services.**

Cultural values and world views in counseling. 3 Cr. DEMAND.

**444. Internship.**

Arranged by contract with field supervisor, college supervisor, and student; should be established semester prior to experience. Credits awarded are determined by clock hours involved. 6-12 Cr. F, S, SUM.

**445. C/D Internship.**

Arranged by contract with field supervisor, college supervisor, and students in Chemical Dependency Program. Should be established semester prior to experience. Credits awarded are determined by clock hours involved. 12 Cr. F, S, SUM.

**446. C/D Internship.**

Arranged by contract with field supervisor, college supervisor, and students in Chemical Dependency Program. Should be established semester prior to experience. Credits awarded are determined by clock hours involved. Prereq.: APSY 445. 12 Cr. F, S, SUM.

**463. Application of the Principles of Learning.**

Theories of learning and their application to classroom instruction; motivation, concept formation, retention, transfer, and problem solving. Prereq.: APSY 262. 3 Cr. F, S, SUM.

**465. Stress Management.**

Stress disorders, assessment procedures, and strategies with which to control stress reactions. 3 Cr. DEMAND.

**476. Research Methods in Applied Psychology.**

How to read, understand, and evaluate research. Group and single subject research designs, and statistical terms. 3 Cr. F, S.

**484. Introduction to Psychopharmacology.**

Effects of drugs on behavior, impact of pharmacology and behavioral factors on effects of drugs. 3 Cr. F.

**498. Psychology Teaching Practicum.**

Supervised training and practical experience in applying instructional techniques in educational settings. 1-3 credits per semester; practical experience of course may be repeated once for two additional credits. Instructor permission required. F, S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**404/504. 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 Undgr. Cr., 3 Gr. Cr. DEMAND.

**428/528. 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.

**430/530. Seminar.**

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

**432/532. Instrumentation: Laboratory Equipment.**

Psychological laboratory equipment including electromechanical and solid-state control, interface, environmental, and data-recording devices. 3 Undgr. Cr., 2 Gr. Cr. DEMAND.

**433/533. Applied Behavior Analysis I.**

Behavior analysis in applied settings. Design, implementation, and evaluation of behavior analysis procedures. Prereq.: APSY 330. 3 Undgr. Cr., 2 Gr. Cr. F, S.

**434/534. Applied Behavior Analysis II.**

Advanced applied behavior analysis techniques. Design, assessment, and evaluation of behavior change procedures. Current issues. Prereq.:

APSY 330, 433-533. 3 Undgr. Cr., 2 Gr. Cr. S.

**435/535. Experimental Analysis of Behavior.**

Analysis of complex sequences of behavior, continued reinforcement, concurrent operants, stimulus control, avoidance behavior, and punishment. Prereq.: APSY 330. 3 Undgr. Cr., 2 Gr. Cr. DEMAND.

**439/539. 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. 4 Undgr. Cr., 3 Gr. Cr. S.

**493/593. 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. 3 Undgr. Cr., 2 Gr. Cr. DEMAND.

**ART (ART)**

101 KIEHLE VISUAL ARTS CENTER/255-4283

*A program in the College of Fine Arts and Humanities.*

**Chairperson** Virginia Bradley. **Faculty:** Aiken, Bradley, Bruno, Christensen, Gorica, Gutteter, Kuchinski, Lois-Borzi, Madsen, Metcalf, Sherarts, Weston.

The mission of the Department of Art is based upon objectives that are four-fold: 1) Introduce students to the visual arts through lectures, discussions, and studio experiences; 2) Provide a current and timely preparation for the studio artist or graphic designer; 3) Prepare effective artists/teachers to teach art to private and public school students from preschool to grade twelve, as prescribed by the Minnesota State Department of Education and the State Licensure Board in accordance with current educational philosophy; 4) Acquaint students with the history of art and its function as a universal language.

The department offers course work pursuant to the Bachelor of Arts, Bachelor of Science, or Bachelor of Fine Arts degrees on the undergraduate level. On the graduate level, it offers course work leading to the degree of Master of Arts in the studio arts.

**Art Major Acceptance Requirements**

Before students will be formally admitted to an art major, they must:

1. Complete the 27-credit art Foundation sequence (ART 101, 102, 103, 104, 105, 106, 107, 230, 231);
2. Attain a GPA of 2.5 or better in art Foundation courses taken at SCSU.

*In addition, BFA applicants must:*

3. Successfully complete the art department portfolio review.

**BACHELOR OF ARTS**

**Art History Major (36)**

ART 230, 231, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439

**Art Major (48)**

Foundation Program (27): ART 101, 102, 103, 104, 105, 106, 107, 230, 231

Upper-division studio support (3): ART 201

Upper-division studio electives from the following (12):

ART 205, 211, 220, 240, 250 or 251 or 350, 260, 270, 280, 281, 285, 315, 408, 409

Art history electives from the following (6):

ART 430, 431, 432, 433, 434, 435, 436, 437, 438, 439

**Art Minor (27)**

Minor courses (18): ART 101, 102, 103, 104, 230, 231  
 Studio electives from the following (9): ART 205, 240, 250, 251, 260, 270

**Graphic Design Minor (21)**

ART 101, 102, 105, 220, 221, 320, 330

**BACHELOR OF SCIENCE-ART EDUCATION****Comprehensive Major (Grades K-12) (53)**

Foundation Program (27): ART 101, 102, 103, 104, 105, 106, 107, 230, 231

Art Education courses (8): ART 290, 390, 490

Studio courses (15):

ART 205, 240, 250 or 251, 260, 270

Art history electives from the following (3):

ART 430, 431, 432, 433, 434, 435, 436, 437, 438, 439

**Elementary Minor (29)**

Minor courses (20): ART 101, 102, 103, 104, 230, 231, 290

Studio electives from the following (9): ART 205, 240, 250, 251, 260, 270

**BACHELOR OF FINE ARTS****Graphic Design Concentration (78)**

Foundation Program (27): ART 101, 102, 103, 104, 105, 106, 107, 230, 231

Upper-division studio support (3): ART 201

Major courses (30): ART 220, 221, 320, 321, 322, 420, 421, 422, 444 (6 Cr.)

Art history and design history electives from the following

(6): ART 330, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439

Upper-division art electives from the following (12):

ART 205, 211, 240, 250 or 251, 260, 270, 280, 281, 285, 315, 408, 409

**Studio Art Concentration (78)**

Foundation Program (27): ART 101, 102, 103, 104, 105, 106, 107, 230, 231

Upper-division studio support (3): ART 201

Studio electives from the following (12): ART 205, 211, 220, 240, 250, 251, 260, 270, 280, 281, 285, 315, 409, or 300-level studio courses with adviser's approval

Upper-division art history electives from the following (6): ART 430, 431, 432, 433, 434, 435, 436, 437, 438, 439

Major Studio Area (30): Select one of the major studio areas listed below:

Ceramics: ART 211, 260, 270, 285, 315, 370, 371, 408, 470, 471

Drawing: ART 211, 240, 250 or 251, 311, 312, 315, 408, 411, 412, 415

Painting: ART 211, 240, 250 or 251, 285, 315, 340, 341, 408, 440, 441

Photography: ART 205, 250 or 251, 281, 285, 305, 306, 405, 406, 408; COMM 336

Printmaking: ART 211, 240, 250, 251, 281, 311, 350, 408, 450, 451

Sculpture: ART 211, 260, 270, 285, 315, 360, 361, 408, 460, 461

**BACHELOR OF ELECTIVE STUDIES****Art Major (48)**

Foundation Program (27): ART 101, 102, 103, 104, 105, 106, 107, 230, 231

Upper-division courses (21): Select 21 upper-division credits with the approval of the department.

**COURSE DESCRIPTIONS:****101. Foundation Drawing I: Observation**

Basic drawing skills, materials and techniques with emphasis on perceptual acuity and visual elements. 3 Cr. F, S, SUM.

**102. 2-D Design and Color**

Critical and analytical skills used in building basic visual design vocabulary. 3 Cr. F, S, SUM.

**103. Foundation Drawing II: Form and Content**

Perceptual and conceptual drawing problems, theme and content development, media experimentation, and critical vocabulary. Prereq.: 101. 3 Cr. F, S, SUM.

**104. 3-D Design**

Design and manipulation of form and space through a diverse approach to materials and processes. 3 Cr. F, S.

**105. Computer Studio**

Computer as a creative tool. Exposure to various applications and media. 3 Cr. F, S.

**106. Critical Frameworks**

Criticism, theory, and practices of contemporary visual arts in studio setting. 3 Cr. F, S.

**107. Combined Media/Photography**

Traditional and contemporary approaches with currently used technologies including photographic processes. Prereq.: 102, 103, 104, 105, 106. 3 Cr. F, S.

**+130. Studio Art for Non-Majors**

Studio experiences in various media. See class schedule for listing of topics. May be repeated with different topics to a maximum of 9 Cr. 3 Cr. F, S, SUM.

**+131. Introduction to the Visual Arts of the World (MGM)**

Visual arts as a unique form of human communication of personal and cultural values. 3 Cr. F, S.

**201. Text and Image**

Relationships between text and image from both a graphics and the fine arts perspective in a studio setting. Prereq.: 107, 230, 231. 3 Cr. F, S.

**205. Introduction to Photography**

Qualities of black and white photography. Experiments with various subjects and techniques. Prereq.: 107, 230, 231; Art Minors: permission of instructor. 3 Cr. F, S.

**211. Introduction to Drawing**

Personal vision, expression and mixed media in variety of scales. Prereq.: 107, 230, 231. 3 Cr. F, SUM.

**220. Introduction to Graphic Design Studio I**

Principles and practice of graphic design; study of visual signs and symbols including letterforms. Prereq.: 107, 230, 231; Graphic Design Minors: permission of instructor. 3 Cr. S.

**221. Introduction to Graphic Design Studio II: Tools and Techniques**

Problem solving using current tools and techniques used in graphic design. Prereq.: 220. 3 Cr. F.

**230. Art History Survey I**

Painting, sculpture and architecture from Paleolithic to the end of the thirteenth century. Stylistic classification of major works of art throughout the world. 3 Cr. F, S.

**231. Art History Survey II**

Painting, sculpture and architecture from the Italian Renaissance to the Contemporary Period. Stylistic classification of major works of art. 3 Cr. F, S.

**240. Introduction to Painting**

Concepts, materials, and techniques. Prereq.: 107, 230, 231; Art Minors: permission of instructor. 3 Cr. F, S.

**250. Introduction to Printmaking I**

Basic print techniques including lithography and intaglio (etching). Prereq.: 107, 230, 231; Art Minors: permission of instructor. 3 Cr. F, S.

**251. Introduction to Printmaking II**

Basic print techniques, including relief and silkscreen printing. Prereq.: 107, 230, 231; Art Minors: permission of instructor. 3 Cr. F, S.

**260. Introduction to Sculpture**

Three-dimensional work in a variety of materials, understanding form and the basic elements of sculpture. Prereq.: 107, 230, 231; Art Minors: permission of instructor. 3 Cr. F, S.

**270. Introduction to Ceramics**

Materials, processes and techniques, including handbuilding, throwing, glazing and firing. Prereq.: 107, 230, 231; Art Minors: permission of instructor. 3 Cr. F, S.

**280. Multimedia**

Personal and cultural-based works employing a variety of media and materials. Prereq.: 107, 230, 231. 3 Cr. F.

**281. Advanced Computer Studio**

Current issues and technologies addressed in graphic design. Prereq.: 107, 230, 231. 3 Cr. S.

**285. Performance/Installation**

Use of space and environments incorporating time and a variety of media, concepts and themes. Prereq.: 107, 230, 231. 3 Cr. F, S.

**290. Visual Arts in the Elementary School**

A child's changing needs for artistic expression; parallel growth in creative and mental development, methods for different age levels and classroom situations. Art Education majors and minors only. Prereq.: Permission of instructor. 2 Cr. F.

**296. Visual Arts for Elementary Classroom Teachers**

Developmental stages of artistic activity. Art media for each stage. Experience with art materials to develop confidence in the student's own creative approach and the use of these materials in relation to creative needs of elementary students. 2 Cr. F, S.

**305. Intermediate Photography I**

Advanced techniques in photography. Prereq.: 205. 3 Cr. F, S.

**306. Intermediate Photography II**

Imagery through manipulation of photographic materials and processes. Prereq.: 305. 3 Cr. S.

**311. Intermediate Drawing I**

Form and content through color, mixed media, and working in a series. Prereq.: 211. 3 Cr. F, SUM.

**312. Intermediate Drawing II**

Individual development of drawing process and point of view. Prereq.: 311. 3 Cr. S, SUM.

**315. Life Drawing I**

Human proportion, anatomy and figure composition. Drawing from models. Prereq.: 107, 230, 231. 3 Cr. F, SUM.

**320. Intermediate Graphic Design Studio I: Production**

The process of taking raw designs through to production; planning, electronic pre-press, color, proofing. Prereq.: 221. 3 Cr. F.

**321. Intermediate Graphic Design Studio II: 2-D Text and Image**

Solving two-dimensional graphic design problems with an emphasis on text and image for print and electronic media. Prereq.: 320. 3 Cr. S.

**322. Intermediate Graphic Design Studio III: 3-D Problems**

Three-dimensional projects, including, package/product, exhibit and architectural graphics. Prereq.: 321. 3 Cr. S.

**330. Design History**

Events, influences and technological achievements that have led to the current practice of design; including furniture, interior, product and graphic design. Prereq.: 221. 3 Cr. F.

**340. Intermediate Painting I**

Combined traditional and experimental media. Prereq.: 240. 3 Cr. F, S.

**341. Intermediate Painting II**

Conceptual and perceptual development. Prereq.: 340. 3 Cr. F, S.

**350. Photo Printmaking**

Photographic and computer print processes in various media, including lithography, intaglio, screen printing, and alternative non-silver processes. Prereq.: 107, 230, 231. 3 Cr. F, ALT.

**360. Intermediate Sculpture I**

Three-dimensional work in a variety of materials. Prereq.: 260. 3 Cr. F, S.

**361. Intermediate Sculpture II**

Site specific project-based assignments. Prereq.: 360. 3 Cr. S.

**370. Intermediate Ceramics I**

Art and design of the ceramic discipline, including handbuilding, throwing, glazing and firing processes. Prereq.: 270. 3 Cr. F, S.

**371. Intermediate Ceramics II**

Issues of scale in ceramic processes and materials. Prereq.: 370. 3 Cr. F, S.

**390. Visual Arts in the Secondary School**

Analysis and demonstration of methods and procedures of creative art activities during adolescence. Art Education majors only. Prereq.: Permission of instructor. 3 Cr. F.

**405. Advanced Photography I**

Allegorical themes and styles in artist-controlled settings. Prereq.: 305. 3 Cr. S.

**406. Advanced Photography II**

Senior portfolio. Prereq.: 405. 3 Cr. DEMAND.

**408. Junior-Senior Seminar**

Capstone course on professional practices for studio artists. Prereq.: junior or senior standing. 3 Cr. S, ALT.

**409. Topics in Art**

Intensive study in a special art topic. Topic will be announced in class schedule. 3 Cr. May be repeated to a maximum of 9 Cr. DEMAND.

**411. Advanced Drawing I**

Drawing projects related to student's studio major area; composition and the relationship of drawing to individual creative expression and the student's studio specialty. Prereq.: 312. 3 Cr. F, S.

**412. Advanced Drawing II**

Drawing in series and development of senior exhibition. Prereq.: 411. 3 Cr. S, SUM.

**415. Life Drawing II**

Mixed media and format experimentation with the human form as subject. Prereq.: 315. 3 Cr. S.

**420. Advanced Graphic Design Studio I: System Graphics**

System graphics, corporate identity and information graphics. Prereq.: 322. 3 Cr. S.

**421. Advanced Graphic Design Studio II: Interactive Design**

Current applications and design principles essential for creating interactive projects. Prereq.: 420. 3 Cr. F.

**422. Advanced Graphic Design Studio III: Professional Practice**

Senior seminar on managing design, costs, schedules, quality, copy-right, and ethics. Results of design activity on the physical and aesthetic environment. Prereq.: 421. 3 Cr. S.

**440. Advanced Painting I**

Continued thematic and format development in painting and subjective expression. Prereq.: 341. 3 Cr. F, S.

**441. Advanced Painting II**

Painting in a series and development of senior exhibition. Prereq.: 440. 3 Cr. F, S.

**450. Advanced Intaglio and Lithography**

Multi-color printing, color lithography and other processes based on basic printmaking procedures. Prereq.: 250. 3 Cr. F, S.

**451. Advanced Relief and Silkscreen**

Variations on relief printing, including letterpress, and experiments in screenprinting processes and surfaces. Prereq.: 251. 3 Cr. S, ALT.

**460. Advanced Sculpture I**

Experimentation in scale, format, and material. Prereq.: 361. 3 Cr. S.

**461. Advanced Sculpture II**

Sculpture in series and development of senior exhibition. Prereq.: 460. 3 Cr. F, S.

**470. Advanced Ceramics I**

Ceramic installation. Prereq.: 371. 3 Cr. F, S.

**471. Advanced Ceramics II**

Ceramics in series and development of senior exhibition. Prereq.: 470. 3 Cr. F, S.

#### 490. Ethnic and Folk Art for Art Educators

Forms from diverse cultures suitable for projects in elementary and secondary grades. Prereq.: 390. 3 Cr. S.

#### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

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

#### 430/530. Ancient and Classical Art

The great ancient civilizations including Egyptian, Mesopotamian, Aegean, Greek, Etruscan, and Roman. 3 Cr. S, ALI.

#### 431/531. 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. F

#### 432/532. Renaissance Art

The Italian Renaissance beginning with Giotto and including the masters of the 15th and 16th century Northern Europe. 3 Cr. S.

#### 433/533. Baroque and Rococo Art

European art of the 17th and 18th centuries including El Greco, Rembrandt, Bernini, etc. 3 Cr. S, ALI.

#### 434/534. European 19th Century Painting and Sculpture

Neo-Classicism, Romanticism, Realism, Impressionism and Post-Impressionism. 3 Cr. S.

#### 435/535. 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

#### 436/536. Modern Art (1900-1955)

Movements, artists and concepts of modernism. 3 Cr. F

#### 437/537. Art Since 1955

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

#### 438/538. 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

#### 439/539. Topics in Art History

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

## AVIATION (AVIT)

216 HEADLEY HALL/ (320) 255-2107

*Also see College of Science and Engineering description and requirements.*

**Chairperson** Ken Raiber. **Faculty:** Anderson, Goke, Manson, Mattick, Raiber, Thondoeng.

The Bachelor of Science in aviation is accredited by the Council on Aviation Accreditation (CAA); an FAA/UAA approved Airway Science-Management emphasis is also offered. The Department of Aviation prepares individuals for professional positions in aviation; excellent opportunities exist in flight, management, training, research, development, operations, and sales. The curricula are based upon recommendations by Industry advisory boards, Federal Aviation Administration, University Aviation Association, and universities having similar degree programs.

The Department of Aviation recognizes Junior status as 60 credits from graduation and Senior status as 30 credits from graduation as indicated on the approved major program form. Only students admitted to a university major program may enroll in 300- or 400 level courses. Transfer students with adviser approval, may take upper-division classes during their first year in attendance. The student should note that there are certain courses in the program that have prerequi-

sites which are not counted towards degree requirements. Students who have not had high school higher algebra must take Mathematics 130 their first semester of attendance. Students are advised to have access to a personal computer as reports usually are required to be done on a word processor; students may be required to purchase some software packages.

#### Admission to Major

1. Complete AVIT 101, 207; MATH 111, 211; SPC 192, and ENGL 191. Transfer students who have completed the pre-major courses at another regionally accredited college or university must check with the aviation faculty for their pre-major courses.
2. Attain a minimum GPA of 2.50 both in the pre-major core and all SCSU course work.
3. Obtain an Application for Major from the dean's office and complete it with the assistance of the major adviser.
4. A GPA of 2.50 on SCSU course work is required for graduation with an aviation major.
5. All major/minor program elective credits must be approved by an aviation adviser. Internship and cooperative education opportunities are available for Junior/Senior students.
6. New students holding flight ratings must consult with an aviation adviser for procedures to obtain credit for AVIT flight courses. Once a student enrolls at SCSU, flight classes must be completed through the approved contractor in St. Cloud.
7. Application does not insure admission to major program. Acceptance may depend upon the number of majors currently enrolled. Admission to major program will be complete when the form is on file in the dean's office and on record in the Office of Records and Registration.
8. Students wishing to add the Aviation major or minor are required to discuss their plans with an Aviation adviser. Students majoring in Aviation will not be able to add another major or a minor in Aviation. The only exception to this policy is that an Aviation Management major may add a Flight minor with adviser approval. Elective credits in the minor and/or major cannot be double counted.

#### Ground School/Flight Rating Policy

In either case listed below, students, who are transferring with flight ratings and desire to major in Aviation-Professional Flight, must complete AVIT 306 and have their initial CFI rating (if applicable) assessed by designated SCSU aviation faculty.

- a. Credits in Transfer: Students with pilot certificates and ratings earned without college credit through training at private flight schools, fixed base operations, or other schools not accredited by a regional educational accrediting agency and who wish to receive college credit for these ratings must register for credit-by-examination. This includes flight ratings and certificates that are accepted by regionally accredited college or university which were obtained as described above. The student must arrange with Aviation faculty for the appropriate ground and/or flight proficiency examination(s). Credit by exam is valid only for ratings earned prior to enrolling at SCSU.
- b. Students with pilot certificates and ratings earned with college credit through another regionally accredited college or university may transfer those credits to SCSU to satisfy SCSU Aviation curriculum requirements without demonstration of proficiency.

#### BACHELOR OF SCIENCE

##### Aviation Major (72)

Aviation core (30 credits) AVIT 101\*, 207\*, 301, 305, 307, 315, 407; MATH 111\*, 211\*; MGMT 301; ENGL 332 or MKGB 309.

\* indicates major prerequisites (SPC 192 & ENGL 191 are also required to be completed as major prerequisites).

**Professional Flight Emphasis (42)**

AVIT 102, 203, 204, 303, 304, 306, 311, 312, 319, 401, 403; ESCI 265, 360; PHYS 231; PHYS 232 or AVIT 270. Upper Division elective credits approved by adviser: (2-3).

**Operations Emphasis (42)**

AVIT 203, 303, 319 or 415, 401, 409 or 411 or 413; ESCI 265, 360; PHYS 231; PHYS 232 or AVIT 270; SPC 341; MGMT 365. Upper Division elective credits approved by adviser: (11-12).

Students desiring to meet the Federal Aviation Administration Airway Science Management requirements must get the current list of classes and the approval of the SCSU aviation program airway science coordinator.

**Management Emphasis (42)**

AVIT 345, 409, 411, 413 (3 of 4); 419 or 444 (3 cr); MCS 302 or MCS 303 or STAT 229; ACCT 291, 292; SPC 341; MGMT 352, 365; MKGB 235; Upper Division elective credits approved by adviser (9).

**Aviation Minor (24)**

The Aviation Minor is designed to complement major concentrations in business, earth science, biology, education, etc. It is a unique program that provides several concentration options to fit the diverse needs of students. Electives must be approved by an Aviation adviser.

**Flight (24)**

AVIT 101, 102, 203, 204, 207, 303, 304, 305, 306, 307; Electives: (2)

**Operations (24)**

AVIT 101, 203 or 315, 207, 301, 305; Electives: (12)

**Management (24)**

AVIT 101, 207, 307, 407, MGMT 301; ACCT 291; AVIT 409 or 411 or 413; Electives: (3)

**BACHELOR OF ELECTIVE STUDIES**

**Minor (24)**

Area/credits to be determined by department.

**COURSE DESCRIPTIONS**

**+101. Aeronautics I.**

Principles of flight, weather, navigation, aircraft and engine operation, flight instruments, flight computer, communications, flight planning and federal aviation regulations. Preparation for private written exam. 3 Cr. F, S, SUM.

**102. Private Pilot Flight.**

Documents, pre-flight prep., airport operations, flight maneuvers, communication, navigation, emergencies. Preparation for FAA flight test. All flight fees paid by student. Prereq.: 101. 1 Cr. F, S, SUM.

**+107. Women in Aviation (MGM).**

Study of significant contributions made by women in the aviation field. Topics discussed include early ballooning (late 1770s) to space exploration in the 20th century and beyond. Emphasis on women's achievements in over-coming societal barriers in the aviation field. 3 Cr. F, S.

**203. Instrument Pilot Ground School.**

Instruments and systems, weather, IFR procedures, federal aviation regulations, attitude instrument flying, cross-country procedures and instrument approaches. Prereq.: 101. 3 Cr. F, S.

**204. Instrument Pilot Flight.**

Supervised instrument flight instruction for the FAA instrument flight test. Prereq.: 102, 203. All flight fees to be paid by student. 1 Cr. F, S, SUM.

**+207. Air Transportation**

Study of the air transportation industry; including its historical, present, and future status. Topics include regulation and administration of air

transportation; introduction to air carriers and general aviation. 3 Cr. F, S, SUM.

**210. Multi-Engine Rating**

Ground/flight instruction preparation for FAA flight test including multi-engine systems and performance, engine out procedures, and required flight maneuvers. Prereq.: 102. All flight fees paid by student. 1 Cr. F, S, SUM.

**270. Electronics Technology I**

Atomic structure, charges and fields, conductors, semiconductors, insulators, resistance, capacitance, inductance, direct and alternating current circuit theory. Prereq.: high school algebra. 3 Cr. F, S, SUM.

**301. Aviation Physiology**

Effect of flight on human physiology, including hypoxia, barotrauma, vertigo, fatigue, drugs, vision, preventative medicine; review of accident data relating to physiological factors in aviation accidents. Prereq.: 101. 1 Cr. F, S.

**303. Commercial Pilot Ground School**

Advanced aviation fundamentals and aerodynamics, aircraft systems. Flight computer, navigation and communication. Federal Aviation regulations and physiology of flight. Prereq.: 101. 3 Cr. F, S.

**304. Commercial Pilot Flight I**

Gliding spirals; eight-on-pylons; lazy eights; chandelles, and other commercial maneuvers. Preparation for FAA commercial pilot flight test. All flight fees paid by student. Prereq.: 102, 203, 303. 1 Cr. F, S, SUM.

**305. Aviation Safety**

Aviation safety system including data analysis, aircraft and air traffic control technology, airport design and capacity, NTSB and FAA functions and human factors. Prereq.: 101, 207. 2 Cr. F, S.

**306. Commercial Pilot Flight II**

Advanced simulator procedures. Line Oriented Flight Training (LOFT), Crew Resource Management (CRM). Prereq.: 204. All flight fees paid by student. 2 Cr. F, S, SUM.

**307. Aviation Law**

Development of aviation law including topics on: federal legislation, FAA, NTSB, state commissions, and international law. Topical study of law as it relates to aircraft ownership, airports, pilots, manufacturers, and airlines. Prereq.: 101, 207. 3 Cr. F, S.

**309. Advanced Instrument Ground Instructor**

Ground instruction in all subject areas required of private, commercial, and instrument pilots, fundamentals of instructing; instructor endorsements/responsibilities. Prereq.: 203, 303. 1 Cr. F, S, SUM.

**311. Flight Instructor Airplane-Ground School**

Thought processes applicable to flight, organization and administration of flight training materials, analysis and effective teaching of flight maneuvers, flight instructor responsibilities and endorsements, professionalism, and federal air regulations. Prereq.: 203, 303. 3 Cr. F, S.

**312. Flight Instructor Airplane-Flight**

Supervised flight instruction in preparation for the FAA flight instructor airplane flight test. Prereq.: 304, 306, 311 or concurrent with 311. All flight fees paid by student. 1 Cr. F, S, SUM.

**313. Flight Instructor Instrument-Ground School**

Organization and administration of instrument flight training materials, analysis and effective teaching of instrument flight maneuvers, federal air regulations, instrument procedures, instructor responsibilities and endorsements. Prereq.: 311. 1 Cr. F, S, SUM.

**314. Flight Instructor Instrument-Flight**

Supervised flight instruction in preparation for the FAA flight instructor instrument flight test. Prereq.: 204, 304. All flight fees paid by student. 1 Cr. F, S, SUM.

**315. Introduction to Air Traffic Control**

Study of the air traffic control system, procedures, facilities, and users, providers, with a review of the national airspace system, automation, and the future. Prereq.: 101. 3 Cr. F, S.

**318. Flight Instructor Multi-Engine**

Ground and flight instruction in the knowledge and skill areas required in preparation for the FAA multi-engine instructor practical exam.



Prereq.: 210, 312. All flight fees paid by student. 1 Cr. F, S, SUM.

### 319. Advanced Aerodynamics

Advanced concepts in aerodynamics. Topics on lift, drag, thrust, performance, stability. High-speed flight, design, and test. Prereq.: 203, 303, PHYS 231. 3 Cr. F

### 345. Introduction to Occupational Safety

Humanitarian, economic, ethical, and legal aspects. Occupational Safety & Health Act. Workers' compensation law. Common hazards. 3 Cr. S.

### 401. Flight Engineer-Basic Ground School.

Federal air regulations covering: Flight engineer certification and qualification; Air carrier operating rules and equipment requirements; reports and records; high speed aerodynamics; weight and balance computations, weather radar, stormscopes, minimum equipment lists, crew resource management, flight directors, high altitude environment. Prereq.: 203, 303. 3 Cr. F, S.

### 403. Flight Engineer Turbojet-Ground School

Detailed study of control systems and operating procedures for the Boeing 727 aircraft as related to flight engineers' duties. Includes engine, hydraulics, electrical, pneumatic, and emergency systems as well as performance computations. Prereq.: 203, 303. 3 Cr. F

### 405. Regional Airline/Aircraft Systems

Study of regional airlines and turbojet aircraft systems and operational procedures, including engines, hydraulics, electrical, fuel, and emergency systems. Additional topics include structure and marketing agreements, FARs, Crew Resource Management, flight planning, and flight profiles. Prereq.: 401. 3 Cr. DEMAND.

### 407. Aviation Management

Principles of management applied to general aviation, airlines. Includes topics on planning, organizing, directing, controlling and marketing relating to the aviation industry. Prereq.: 101, 207, MGMT 301. 3 Cr. F, S.

### 409. Airport Management

Study of airport development and operations from a management perspective. Applied concepts of business, personnel, and management as they relate to publicly owned and operated airport facilities. Prereq.: 407. 3 Cr. F

### 411. Airline Management

Study of airline management and operations. Applied concepts of business, personnel, and management as they relate to the airline industry. Prereq.: 407. 3 Cr. F

### 413. General Aviation Management

Study of general aviation and Fixed-Base Operation (FBO) management. Applied concepts of business, personnel, and management as they relate to FBOs. Prereq.: 407. 3 Cr. S.

### 415. Advanced Air Traffic Control

Continuation of AVIT 315. Includes topics concerning the methods and techniques used by controllers in their jobs. Manual and computer simulation procedures will be taught. Prereq.: 101, 207, 315. 3 Cr. S.

### 417. B-727 Turbojet Operations

Introduction to airline turbojet training and operations including standard operating procedures (SOPA), standard maneuvers and configurations (SMAC), airline line oriented flight training (LOFT), crew member flows and performance charting for the B-727. Optional simulator lab. Prereq.: 401, 403. 2 Cr. S.

### 419. Contemporary Issues in Aviation

Capstone course for Aviation Management majors taken during their last 2 semesters of program. Research, define, and debate current avia-



tion management issues related to area of interest. Prereq.: admitted to Aviation major, Senior standing, 207, 315, 407, 409 or 411 or 413 (2/3), MGMT 301, 365. 3 Cr. DEMAND. Hours arranged.

### 444. Internship

Supervised work experience with a business or organization in aviation. Junior or Senior standing and permission of department chair required. May be repeated for a maximum of 12 credits for major program credit. 3, 6, 9, or 12 Cr. F, S, SUM.

### 496. Seminar: (Topical)

Reading and research on a selected topic. Senior status. 1-3 Cr. May be repeated with different topics to maximum of 6 credits. DEMAND.

## BIOLOGICAL SCIENCES (BIOL)

262 MATHEMATICS AND SCIENCE CENTER/255-2039

Also see College of Science and Engineering description and requirements.

**Chair** David DeGroot. **Faculty:** Clapp, Cronn, DeGroot, Ezell, Grewe, Gundersen, Hauslein, Knutson, Kramer, Lewis, McGuire, D. Mork, Musah, Peck, Pou, Schrank, Schuh, Simpson, Torrence, Voelz, Williams, Woodard.

## BACHELOR OF SCIENCES

### Biomedical Sciences (80)

This program will allow students to prepare for the entrance into schools which provide professional training in the health care fields, graduate school, or a career in a laboratory or health related area.

Required courses:

BIOL 151, 152, 262, 264, 494  
CHEM 210, 211, 270, 271, 480  
PHYS 231, 232  
STAT 239

Electives courses: 28 credits

The department maintains an updated list of approved electives.

### **BACHELOR OF ELECTIVE STUDIES–BIOLOGY**

#### **Major (36)**

Required courses:

BIOL 150, 151, 152

CHEM 210

Elective courses:

Completion of 24 credits in biological sciences at the 200-level or higher with approval of the department. This graduation option will facilitate program for non-traditional, transfer, and students studying biologically related specialized programs that are not currently defined program. Examples are: Cytotechnology, Fisheries Biology. Contact the Chair of the Biology Department as soon as possible to determine an appropriate faculty adviser.

### **BACHELOR OF SCIENCE-BIOLOGY (83-84)**

This program will provide flexibility and freedom for students to investigate a number of areas in biology. A broad degree program that will provide a wide variety of backgrounds in the biological sciences and related areas of study.

Required courses:

BIOL 151, 152, 212, 214, 262, 264, 312, 362 and an appropriate capstone course (e.g., 447, 448, 492, or 494)

CHEM 210, 240, 241

STAT 239

Biology electives:

20 credits approved by adviser

Supporting electives:

12 credits approved by adviser in CHEM, MATH, STAT, PHYS, ESCI

### **BACHELOR OF SCIENCE–AQUATIC BIOLOGY (86)**

This program provides classroom, laboratory and field experience in aquatic biology. A flexible electives based program that allows student with the assistance of an adviser to construct a solidly focused Aquatic degree.

This program is intended for students interested in careers in freshwater biology, especially fisheries, water quality, limnology and freshwater ecology.

Required courses:

BIOL 151, 152, 212 or 214, 312, 322, 326, 430, 434, 436, 438, 448

CHEM 210, 211, 240, 241 or 320

PHYS 231 or ESCI 220

STAT 239

MCS 302

MATH 211

Biology electives: 12 credits approved by adviser. A list of approved courses will be provided by your Aquatics adviser.

### **Bachelors of Science- Ecology & Field Biology (77-82)**

This program provides a framework of courses and field experiences with emphases in the areas of ecology, ecological services, and field biology and natural history. A set of required and elective courses in these areas will lead to a degree that has been tailored to the students interest. One of the emphases must be selected. The department maintains a list of faculty advisers, emphasis requirements, and course requirements to guide students toward these goals.

#### **Courses Required by All EFB Majors: (40)**

BIOL 151, 152, 212, 214, 312, 447

CHEM 210, 240, 211 or 241 or 320

STAT 239

Additional Biology and supporting courses (39 to 42 credits) in one of the following emphases.

#### **Emphasis Areas:**

##### **1. Biology Major: Ecology and Natural Resources (40+39=79)**

Biology or other department electives (32)

Courses approved by adviser from an approved list.

PHYS 231; MCS 302

A minor may be declared within this major

##### **2. Biology Major: Ecological Services (40+42=82)**

BIOL 326, 332, 412, 422, 432

PHYS 231

MCS 302

ESCI 220, 300, 322, 332 or 334

ETS 262

##### **3) Field Biology and Natural History (40+37 or 38 = 77-78)**

BIOL 334, 412, 422, 453, 456

One course from the following: 216, 424, 426, 428, 430.

Three courses from the following: 314, 316, 322, 324, 434

Eight credits from the following: 318, 326, 330, 414, 418, 440, 442, 449

It is essential to see an emphasis adviser during the first semester you are enrolled in biology courses.

### **BACHELORS OF SCIENCE–CELL BIOLOGY (80)**

A program of study that focuses on the cellular aspects of life. Specifically, students interested in cellular function at the molecular and physiologic level. A strong emphasis on laboratory coursework and the current understanding of cellular processes. Electives provide the possibility to explore more specific aspects of laboratory science and/or concentrate on a particular aspect of cell biology. This program will allow students to proceed to graduate studies or find employment in a wide variety of disciplines.

Required courses:

BIOL 151, 152, 262, 264, 362, 492

CHEM 210, 211, 270, 271, 480

PHYS 231, 232

STAT 239

Group A: Select 6 credits from the following:

BIOL 466, 468, 482, 484

Group B: Select 18 credits from the following:

BIOL 470, 472, 474, 476, 478, 480, 486

CHEM 481

Courses not selected from group A may be use to fulfill the 18 credits required in group B.

### **BACHELOR OF SCIENCE–BIOLOGY—MINOR (24)**

BIOL 151, and 152.

Additionally, 16 credits of Biology courses at the 200-level or higher.

Course must be approved by adviser.

### **BACHELOR OF SCIENCE – BIOTECHNOLOGY (87)**

This program is recommended for those who wish to work in the area of biotechnology. With this degree students may seek employment following graduation or apply for admission to graduate schools for further study. Students should contact the biotechnology major adviser in their freshman year.

Required courses:

BIOL 151, 152, 262, 264, 362, 454, 466, 468, 472, 476, 482, 484, 486

CHEM 210, 211, 270, 271, 480, 481

PHYS 231, 232

MATH 211, 212

STAT 239

### **BACHELOR OF SCIENCE – WILDLIFE MANAGEMENT (85)**

(Pending MnSCU approval)

This academic program is designed to provide students with the necessary coursework and field experiences to make them eligible for poten-

tial certification as professional wildlife biologists by the The Wildlife Society.

**Required courses:**

BIOL 151, 152, 212, 214, 216, 312, 314, 324, 330, 334, 418, 422,  
424, 434, 442, 444, 448  
CHEM 210, 240, 241  
STAT 239  
GEOG 316, 402

**BACHELOR OF SCIENCE:—BIOLOGY  
(TEACHING)**

The following program meets the State of Minnesota requirements for teaching Biology in grades 9-12. Students planning to become licensed to teach Biology should contact an adviser at the earliest convenience.

BIOL 151, 152; ESCI 220; CHEM 210, 211 or 240; PHYS 231; SCI 321, 322, 340, 440, 444; STAT 239; plus 16 credits of electives (choose 2): BIOL 212 or 214; 312 and (choose 2): BIOL 206, 262, 264.

**COURSE DESCRIPTIONS:**

**+101. Environment and Society**

Causes and possible solutions to major local, national and global environmental problems. Soil, water, air, forests, energy, wildlife, and related topics. 3 Cr. F, S.

**+102. The Living World**

Plants, animals, and microorganisms of North America. Interactions of organisms with their environment. Minnesota habitats and their inhabitants. Lab. 3 Cr. F, S.

**+103. Human Biology**

Organization and general functioning of the human body. Reproduction; heredity; social implications of biological principles. Lab. 3 Cr. F, S, SUM.

**+104. Human Disorders (Topical)**

Biological aspects of human disorders. Heredity, immunity, infection, aging, stress, life styles, and chemical agents. Offered as different topics: Human Genetics and Birth Defect, Human Disease. General education credit may be received for only one topic. 3 Cr. F, S.

**+105. Plants in Our Society**

Plants in nature and human society; plants and ecology; wild and cultivated edible plants; drugs and medicinal plants; garden and house plants; plants and human nutrition; plant growth and reproduction. 3 Cr. F, S.

**+106. Cultural Botany (MGM)**

Contributions of African, Latin American, Asian, and American Indian cultures to agriculture and the uses of plants/plant products in the United States. Food, fiber, and medicinal plants used by American Indians. Contributions of women and people of color to plant sciences. 3 Cr. F, S.

**151. Cell Function and Inheritance**

The cellular and genetics basis of life. Current laboratory methods. Lab. Prereq.: High School Biology and Chemistry. 4 Cr. F, S, SUM.

**152. Organismal Diversity**

Organisms at the cellular, organismal, and ecological levels. The origin of life and how species diversity arose. Lab. Prereq.: High School Chemistry. 4 Cr. F, S, SUM.

**202. Human Anatomy and Physiology I.**

Structure and metabolic activity of organ systems including muscular, skeletal, nervous, and integumentary. Lab. Prereq.: High School Biology and Chemistry. 4 Cr. F, SUM.

**204. Human Anatomy and Physiology II.**

Structure and metabolic activity of organ systems including circulatory, respiratory, digestive, urinary, endocrine, and reproductive. Lab. Prereq.: 202. 4 Cr. S, SUM.

**206. Introductory Microbiology**

Microorganisms with emphasis on general principles important in allied



health and medicine. (May not be taken for credit if credit has been received for BIOL 362). Lab. Prereq.: 151; CHEM 140 or 210. 4 Cr. F, S.

**212. Plant Biology**

Ecology, evolution, and the structure and function of plants. Plants as organisms relative to environmental influences. Utility and importance of plants to society. Lab. Prereq.: 151, 152. 4 Cr. F, S, SUM.

**214. General Zoology**

Major animal phyla; structure and function of body systems, diversity. Lab. Prereq.: 151, 152. High school algebra and one college-level course in chemistry. 4 Cr. F, S, SUM.

**216. Taxonomy of Grasses and Grasslike Plants**

Collection and identification of grasses and grasslike plants; mainly of the Poaceae, Cyperaceae, and Juncaceae families. Lab. 3 Cr. F.

**250. Biology of Women**

Anatomical and physiological study of the development of sex, the reproductive cycle, sexual function, pregnancy, and common gynecological disorders. 3 Cr. S, ALT.

**262. Genetics**

Transmission and molecular genetics; application to medical genetics. Lab. Prereq.: 151, 152; CHEM 210. 4 Cr. F, S.

**264. Cell Biology**

Cell structure and function. Membranes and the role of chemical signals in cellular function (bioenergetics, genetic regulation, chemical regulation and cell division). Development of experimental techniques. Lab. Prereq.: 262; CHEM 240 or 270; STAT 239 or co-requisite. 4 Cr. F, S.

**266. Medical Terminology**

Interpretation and building a vocabulary of medical terms from Latin and Greek roots. Writing and case studies. 2 Cr. F, S.

**290. Selected Topics in Biology**

A special biology topic at a 200 level. Topics announced in class schedule. 1-3 Cr. May be repeated to maximum of 6 Cr. DEMAND.

**302. Biology for Elementary Teachers**

Concepts in life science appropriate for the elementary school. Lab. Prereq.: SCI 226. 2 Cr. F, S, SUM.

**312. General Ecology**

Animal and plant populations, their interactions with the environment, and competition for resources and space. Population growth, survival and reproductive strategies, and community development. Lab. Prereq.: 212 or 214 (or concurrent enrollment); CHEM 240. 4 Cr. F, S.

**314. Mammalogy**

Classification, morphology, ecology, life histories, and population dynamics of mammals. Lab. Prereq.: 214. 4 Cr. F.

**316. Entomology**

Natural history, anatomy, physiology, economic impact, and classification of common insect groups. Lab. Prereq.: 214. 4 Cr. F.

**318. Comparative Vertebrate Anatomy**

Development and structure of representative vertebrates. Dissection of selected animals. Lab. Prereq.: 214. 3 Cr. S.

**322. Ichthyology**

The collection, identification, anatomy, and natural history of local fishes. Local fish habitats. Lab. Prereq.: 214, 312. 4 Cr. S.

**324. Ornithology**

Identification, field study, and life histories of birds. Lab. Prereq.: 214. 4 Cr. S.

**326. Limnology**

Lakes and streams in a watershed setting; historical origin, physical and chemical environment, diversity of plants and animals, field and laboratory limnological sampling methods. Lab. Prereq.: 312. 4 Cr. F, S.

**328. Principles of Resource Management**

Conservation of natural resources: soil, water, forests, and wildlife. Lab. Prereq.: 312 or ETS 260. 3 Cr. S.

**330. Soils**

Origin, development, classification, plant relationship, physical and chemical properties. Lab. Prereq.: MATH 112 or equivalent, CHEM 140 or 210. 4 Cr. S.

**332. Ecotoxicology**

The toxic effects of chemical and physical agents on living organisms, especially on populations and communities within defined ecosystems; transfer pathways of those agents and their interactions with the environment. Prereq.: 326. 3 Cr. S.

**334. Plant Taxonomy**

Principles of plant taxonomy. Field identification of local trees and shrubs. Observation of local plant communities. Field trips. Prereq.: 212. 2 Cr. F.

**362. Microbiology**

Viruses and virus-like particles, bacteria, protozoa and fungi. General principles important to biologists. Lab. Prereq.: 264. 4 Cr. F, S.

**364. Histology**

Microscopic structure and related functions of mammalian cells, tissues and organs. Lab. Prereq.: 151. 3 Cr. F, S.

**366. Human Anatomy**

Tissues, organs and systems. Structure/function relationships and clinical correlations. Standard anatomical learning aids, cadaver dissections, and computer programs. (May not be taken for credit if credit has been received for BIOL 204). Lab. Prereq.: 151. 4 Cr. F.

**402. Biology of Human Aging**

Physiology and biological processes at the organism, organ, cell and subcellular levels. Not applicable to biology major programs. Prereq.: 103. 3 Cr. S.

**404. Clinical Cytology I.**

Cells found along the female reproductive tract. Cell collection meth-

ods, changes seen in benign, infectious, and neoplastic conditions and changes seen with therapy. Prepares students for certification exams in cytotechnology. Taught at an affiliated clinical site. Lab. Prereq.: Acceptance into the clinical program and/or permission of the instructor. 1-16 Cr. F.

**406. Clinical Cytology II.**

Bronchial, urinary and gastrointestinal cells for changes seen in benign, inflammatory and malignant conditions. Prepares students for certification exams in cytotechnology. Taught at an affiliated clinical site. Lab. Prereq.: Acceptance into the clinical program and/or permission of the instructor. 1-16 Cr. S.

**447. Ecological Plant Physiology**

Capstone course. The relationship between the environment and individual plants, and the interactions between plant populations, the environment, and other populations of organisms. Lab. Prereq.: 212, 312; CHEM 211 or 240 or 320; senior status. 4 Cr. S.

**448. Freshwater Ecology**

Aquatic organisms in lakes and streams; lakes and streams as functional units of watersheds; interactions of aquatic organisms with their environment and each other. Capstone Course. Lab. Prereq.: Senior Status and Permission of instructor. 4 Cr. S.

**450. Readings in Biology (Topical)**

Laboratory or field research. Prereq.: consent of instructor. 1-3 Cr. F, S, SUM.

**451. Research**

Laboratory or field research. Prereq.: consent of instructor. 1-3 Cr. F, S, SUM.

**454. Biology Internship**

Full or part-time participation in industry or a government agency. Arrangements must be made before registration. Max. of 6 credits may be counted toward major requirements, remaining credits to be used in general electives. 1-16 Cr. F, S, SUM.

**492. Advanced Cell Biology**

Capstone course for students electing a B.S. in Cell Biology: Define, research, develop, and submit a senior paper on a specific topic of their choosing with guidance from the instructor. Oral summary. Prereq.: Senior Status. 3 Cr. S.

**494. Pathophysiology**

The capstone course for students electing a B.S. in Biomedical Sciences. A specific category of disease such as cancer, emergent infectious diseases, or autoimmune diseases. Prereq.: Senior Status. 3 Cr. F, S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**408/508. 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.

**412/512. Vertebrate Natural History**

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

**414/514. Paleobiology**

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

**418/518. 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.

**422/522. 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.

**424/524. Plant Ecology**

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

**426/526. Plant Anatomy and Morphology**

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

**430/530. 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.

**432/532. 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

**434/534. 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.

**436/536. 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

**438/538. Ecology of Fish Populations**

Collecting and sampling, population assessment, fisheries techniques. Lab. Prereq.: 326; STAT 239. 4 Cr. F

**442/542. Wildlife Populations**

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

**444/544. Wildlife Management**

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

**449/549. 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 maximum of 9 Cr. 1-3 Cr. DEMAND.

**453/553. Seminar in Biology (Topical)**

Presentations and discussions by students under guidance of a faculty member. May be repeated to a maximum of 4 credits. 1-3 Cr. F, S.

**455/555. 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 maximum of 3 credits. Departmental approval required for enrollment. 1-3 Cr. F, S, SUM.

**456/556. Biological Evolution**

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

**457/557. 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.

**458/548. Biology Topics**

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

**460/560. General Parasitology**

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

**462/562. 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.

**464/564. 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

**466/566. 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.

**468/568. Plant and Animal Cell and Tissue Culture Techniques**

Establish, grow, maintain, preserve, and utilize eucaryotic cells. Lab. Prereq.: 362. 2 Cr. S.

**470/570. 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.

**472/572. Virology**

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

**474/574. Neurobiology**

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

**476/576. Developmental Biology**

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

**478/578. Human Physiology**

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

**480/580. 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



**482/582. 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.

**484/584. Advanced DNA Techniques**

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

**486/586. Immunology**

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

**490/590. Selected Topics in Biology**

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

## **BUSINESS COMPUTER INFORMATION SYSTEMS (BCIS)**

204 BUSINESS BUILDING/255-2174

*Also see College of Business description and requirements.*

**Chairperson** Ruth Meyer. **Faculty:** Heath, D. Krueger, R. Meyer, Paulson, Pearson, Phan, L. Robinson, Song, Weinberg, Yoshimoto.

The Business Computer Information Systems program is designed to prepare students for computer-related careers in business and government. Students are taught the professional skills of a programmer/analyst such as systems development methods, programming languages, and data base processing. Additional topics covered are client/server systems, decision support systems, quantitative modeling techniques, user computing support and management, and information systems management. Graduates of the BCIS program will have a good understanding of both business operations and computer-based information systems. They are qualified for a wide range of positions requiring this combination of knowledge.

Business and nonbusiness majors are encouraged to choose BCIS as a minor.

### **BACHELOR OF SCIENCE**

A major in business computer information systems includes the business core plus the following program:

**Major (36)**

BCIS 250, 251 (or other programming course), 350, 351, 443, 451 (or other networking course with consent of the adviser).

9 credits of BCIS electives; 9 credits from the Computer Science/Microcomputer Studies or related program, selected with prior approval of the BCIS major adviser.

**Minor (27) for Non business and Bachelor of Elective Studies**

**Majors:**

BCIS 240, 241, 340, 350, 454.

12 credits of BCIS electives, selected with prior approval of the BCIS minor adviser.

**Minor (18) for Business Majors:**

BCIS 350, 454

3 credits of BCIS electives; 9 credits from the Computer Science/Microcomputer Studies or related program, selected with prior approval of the BCIS minor adviser.

**NOTES:**

1. Nonbusiness majors who choose to minor in BCIS may take no more than 25% credits of their total university course work in the College of Business.
2. Business majors who choose to minor in BCIS must complete a minimum

of 50% of their credits outside the College of Business for a Bachelor of Science in business degree.

3. Selected BCIS courses are an integral part of the international business programs described in this bulletin.
4. Only students admitted to a business major or minor program and who have completed 60 semester credits (junior standing) may enroll in 300- and 400-level courses. BCIS Department permission required for all other students.

### **COURSE DESCRIPTIONS:**

**150. Business Application Software**

Spreadsheet, database, and other application software in the solution of basic business problems. 3 Cr. F, S.

**240. Business Statistics I**

Review of business math, probability, and distributions. Numerical and graphical descriptive statistics and inferential statistics. Statistical software. Prereq.: MATH 196 or equivalent. 3 Cr. F, S, SUM.

**241. Business Statistics II**

Regression analysis, analysis of variance, time series analysis, quality control and decision analysis. Linear programming. Statistical software. Prereq.: 240. 3 Cr. F, S, SUM.

**250. Application Program Development I**

Requirement analysis, program design, design and coding standards. Translating design to programming language, testing and documentation. Prereq.: Computer Competency. 3 Cr. F, S.

**251. Application Program Development II**

Intermediate business computer programming. Interactive program design and development environments. Prereq.: 250. 3 Cr. F, S.

**255. Computer Interfaces with Business Applications**

Business computer applications, interfaces with common operating systems and computer networks. Prereq.: one programming course or permission of department. 3 Cr. F, S.

**340. Management Information Systems**

Conceptual foundations of MIS, roles of computer-based information systems in organizations, global and ethical issues in MIS, and business application software. Prereq.: Computer Competency. 3 Cr. F, S, SUM.

**341. Management Science**

Deterministic and probabilistic modeling. Linear programming, networks, queuing, inventory models, project scheduling, simulation, and decision analysis. Prereq.: 241 or permission of department. 3 Cr. F.

**350. Systems Analysis and Design I**

Strategies and techniques for structured analysis and design in the development of information systems. Prereq.: Computer Competency. 3 Cr. F, S.

**351. Systems Analysis and Design II**

System development using structured tools/techniques for describing process flows, data flows, and data structures. Prereq.: 350. 3 Cr. F, S.

**359. Practicum in BCIS**

Supervised application program development. Can be repeated to a maximum of 6 credits. A maximum of 3 credits can be used in the major. Prereq.: Permission of department. 1-3 Cr. F, S, SUM.

**444. Internship in Business**

Participation in a full-time paid position with a cooperating business, governmental, or civic organization whose program has been approved in advance by the BCIS Department. Credits are provided upon completion of all requirements. A maximum of 3 credits can be used in the major. Prereq.: Permission of department. 3-12 Cr. F, S, SUM.

### **COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**440/540. 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.

**443/543. 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.

**445/545. Application Program Development III**

Topics in business application program development. Programming languages, development techniques, and development environments. Prereq.: 251. 3 Cr. F

**446/546. 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. S.

**450/550. 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

**451/551. Telecommunications and Networks**

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

**453/553. 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. S.

**454/554. 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. S.

**455/555. Business Research Methodology**

Planning, organizing, and executing a research project. Sampling techniques, design of experiments, interpretation and presentation of business data analysis. Prereq.: 241. 3 Cr. DEMAND.

**459/559. 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.

**460/560. 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. S.

**498/598. 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, MKGB 320. Permission of department. 3 Cr. F, S.

**CHEMISTRY (CHEM)**

358 MATHEMATICS AND SCIENCE CENTER/255-3031

**Chairperson** Mehroo Cooper. **Faculty:** Arndts, Cooper, Dendinger, Frank, Johnson, Lavallee, Lee, Leenay, McKenna, McMullen, Neu, Sadrai, Winter.

Courses in chemistry are offered as part of the education of every college student and as preparation for (1) careers in chemical industries or in governmental laboratories, (2) graduate study in chemistry and its related fields, (3) professional careers in medicine, dentistry, pharmacy, medical technology, nursing, and allied professions, (4) teaching in secondary schools. Students planning to major in chemistry are urged to consult with the chemistry staff at the earliest possible time.

In addition to the requirements for majors and minors given below, students who have not had advanced algebra and trigonometry

in high school are required to complete MATH 112 and 113 or MATH 115.

Note: For those students taking the B.A. 27-28 credit minor, only high school advanced algebra or MATH 112 is required.

The Chemistry Department provides a program approved by the American Chemical Society (ACS). Those students who wish to be certified as having completed the minimum requirements for the ACS approved program must complete all required courses for the B.S. 68 credit Professional Chemistry ACS Approved Major. For further details, students should consult with the chemistry staff.

**BACHELOR OF ARTS**

This program is designed for those in the liberal arts or chemistry related fields who wish to have a major or minor in chemistry. The B.A. degree in chemistry provides two options: (a) a Liberal Arts option and (b) a Chem-Med option. The Liberal Arts option is designed to provide the student with the basic chemistry curriculum and allow for maximum flexibility in terms of electives. The size of the Liberal Arts option will allow the student to take a second major without exceeding the minimum number of credits required for graduation. The Chem-Med option is designed to provide a basic chemistry curriculum along with additional courses in biology. This option is intended primarily to prepare students for admission to medical school.

**Major (52-72)**

(Core courses plus one of the following options.)

Core (44): CHEM +210, 211, 270, 271, 350, 420, 450, 490; MATH 211, 212; PHYS 231, 232

**Liberal Arts Option (8)**

CHEM 430, plus at least 4 credits of electives from the following: 421, 422, 423, 431, 451, 452, 453, 460-469, 480, 481, 489, 490

**Chem-Med Option (28)**

CHEM 480, 481; BIOL 151, 152, 262, 264, 362

**Minor (27-28)**

CHEM +210, 211, 240 or 270, 241 or 271, 350; CHEM electives (7 Cr. with at least 3 Cr. at 300-400 level). Department approval is required.

**BACHELOR OF ELECTIVE STUDIES****Major (36)**

Completion of 36 credits with the approval of the department.

**Minor (24)**

Completion of 24 credits with the approval of the department.

**BACHELOR OF SCIENCE**

The Professional Chemistry ACS Approved Major program is designed for those individuals who wish to obtain a professional chemistry degree and who are interested in chemical industries, chemical professions or graduate study in chemistry and its related fields. Because of the breadth of this program, students may apply to waive or double count the distribution requirements in the Natural Science and Mathematics area of the General Education Program.

**Professional Chemistry ACS Approved Major (68):**

CHEM +210, 211, 270, 271, 350, 420, 421, 422, 423, 430, 431, 450, 490; MATH 221, 222; PHYS 234, 235; plus at least 7 credits of electives from the following: 451, 452, 453, 460-469, 480, 481, 489, 490. Completion of these courses satisfies the requirements for approval by the American Chemical Society

**Minor (43):**

CHEM +210, 211, 270, 271, 350, 420, 450; MATH 211, 212; PHYS 231, 232.

## BACHELOR OF SCIENCE – TEACHING Chemistry Emphasis

The following program meets the State of Minnesota requirements for teaching chemistry in grades 9-12. Students planning to become licensed to teach chemistry should contact an adviser at the earliest opportunity.

CHEM +210, 211, 240, 241, 350, 444; BIOL 151; ESCI 220; SCI 321, 322, 430, 440; PHYS 231, 232; MATH 211, 212; plus six credits of electives from the following courses: CHEM 307, 320 or any 400-level chemistry course.

### COURSE DESCRIPTIONS

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

#### +101. Understanding Chemistry (4, 0)

Introduction to basic concepts of chemistry. Students will be taught critical thinking skills resulting in informed scientific analysis of environmental and societal problems. Specific topics and emphasis for each section selected by instructor. Credit will not be given to students who have previously taken a chemistry course above number 210 and received a passing grade. 3 Cr. F, S, SUM.

#### +140. Preparatory Chemistry (3, 2)

Introductory course for students who had no high school chemistry or those who do not have a passing score on the 210 placement exam. Preparatory course for 141 and 210. Scientific method, measurements, basic chemical principles and chemical calculations. Lab. Prereq.: high school advanced algebra. 4 Cr. F, S, SUM.

#### 141. Introduction to Organic and Biological Chemistry (3, 2)

The principles of organic and biological chemistry. For pre-nursing and other disciplines requiring no more than a year of chemistry. Lab. Prereq.: 140. 4 Cr. S.

#### +207. Forensic Science (2, 2)

Basic theory and methods for scientific investigation of physical evidence found at the scene of a crime. Emphasis on laboratory analysis currently in use. Lab. 3 Cr. F, S.

#### 209. Semester Transition General Chemistry

Semester transition general chemistry. Intended for students to make the transition from CHEM 215 to CHEM 211. Prereq.: 215. 2 Cr. F 98.

#### +210. General Chemistry I (3, 2)

General chemistry principles. Stoichiometry, solutions, bonding, quantum chemistry, thermochemistry, properties of solids, liquids and gases, and kinetics. Lab. Prereq.: High school advanced algebra or MATH 130; High school chemistry and a passing grade on the CHEM 210 placement exam, or a C or higher in CHEM 140. 4 Cr. F, S, SUM.

#### 211. General Chemistry 2 (3, 2)

Chemical equilibrium, acid-base chemistry, solubility equilibrium, thermodynamics, electrochemistry, coordination chemistry, nuclear chemistry, and descriptive chemistry. Lab. Prereq.: 210. 4 Cr. F, S, SUM.

#### 240. Basic Organic Chemistry (3, 3)

Structure, nomenclature, preparation, stereochemistry, mechanisms and reactions of organic compounds. Lab. Prereq.: 210. 4 Cr. F.

#### 241. Basic Biochemistry (3, 3)

Biological molecules, enzyme functions, and metabolic pathways. Prereq.: 240. 4 Cr. S.

#### 270. Organic Chemistry I (4, 3)

Structure, nomenclature, preparation, stereochemistry and reactions of organic compounds; spectroscopy. The first semester of a full-year course with a mechanistic emphasis, especially for chemistry, biomed-



ical science, biotechnology, cell biology and prepharmacy majors. Lab. Prereq.: 211. 5 Cr. F.

#### 271. Organic Chemistry 2 (3, 3)

Structure, nomenclature, preparation, stereochemistry and reactions of organic compounds; spectroscopy. The second semester of a full-year course with a mechanistic emphasis, especially for chemistry, biomedical science, biotechnology, cell biology and prepharmacy majors. Lab. Prereq.: 270. 4 Cr. S.

#### 302. Physical Science for Elementary Teachers (2, 1)

Concepts in the physical sciences appropriate for the elementary school. For elementary teachers. Integrated lab. 2 Cr. F, S, SUM.

#### 307. Advanced Forensic Science (2, 2)

Analysis of physical evidence through the use of laboratory instrumentation. Sample collection and preparation methods and techniques. Lab. Prereq.: 207. 3 Cr. S.

#### 320. Environmental Chemistry (3, 3)

Identification and analysis of elements and compounds of environmental importance. Special attention to pollutants and toxins. Lab. Prereq.: 210. 4 Cr. S.

#### 350. Quantitative Analysis (2, 6)

Principles and practice of quantitative analysis of the chemical content of matter. Physico-chemical principles, and practical methodology. Titrimetric, spectrophotometric, potentiometric, and chromatographic methods. Lab. Prereq.: 211, or consent of instructor. 4 Cr. F, S.

#### 489. Undergraduate Research in Chemistry (0, 3 per Cr.)

A laboratory investigation of a research problem in chemistry. Prereq.: junior or senior standing and consent of instructor. May be repeated to a maximum of 16 credits. Max of 4 Cr. allowed toward a chemistry major. 1-4 Cr. DEMAND.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 420/520. Physical Chemistry I (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

**421/521. 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. 4 Cr. S.

**422/522. Physical Chemistry Lab 1** (0, 3)

Laboratory to complement 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

**423/523. Physical Chemistry Lab 2** (0, 3)

Laboratory to complement 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.

**430/530. 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, or consent of instructor. 4 Cr. F

**431/531. Inorganic Chemistry 2** (2, 0)

Application of the concepts of inorganic chemistry to chemical elements and compounds. Coordination chemistry including ligand field theory. Prereq.: 430. 2 Cr. S.

**450/550. Instrumental Analysis** (2, 6)

Major instrumental methods of chemical analysis including spectroscopic, electrometric, and chromatographic methods. Lab. Prereq.: 350, 420, or consent of instructor. 4 Cr. S.

**451/551. Computers in the 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 desirable. 4 Cr. S, ALT.

**452/552. 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

**453/553. 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.

**456/556. Methods and Materials for Teaching Secondary Science** (3, 0)

Techniques and curricula for teaching secondary school physical science. 3 Cr. F. S.

**460-469/560-569. 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.

**480/580. 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.

**481/581. Biochemistry 2** (3, 3)

Major metabolic pathways; biochemistry of nucleic acids; and biophysical techniques. Prereq.: 480, 4 Cr. S.

**490/590. 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. 1 Cr. May be repeated to a max. of 4 Cr. F, S.

## CHILD & FAMILY STUDIES (CFS)

B109 EDUCATION BUILDING/255-2132

Also see College of Education description and requirements.

**Chair:** Pammm Minden. **Faculty:** Blaska, Gilman, Hasslen, Minden, Mayala, Palm

The Department of Child and Family Studies offers coursework in child development, parenting, and early childhood education. General education elective courses are offered: CFS 220: Introduction to Parent and Child, CFS 260: Children in a Changing World is an MGM course. The undergraduate major provides students with an early education teaching license for birth through third grade. Students will develop skills and competencies needed for teaching young children, working with parents, directing programs with young children--all related to the developmental levels of children birth - age 8. Licensure requirements may change depending upon State Board of Teaching action.

Students majoring in Child and Family Studies must be admitted to Teacher Education, must have a 2.75 GPA and must have taken the PPST exam before they can enroll in CFS licensure courses. Students are advised to begin their introductory course work during their sophomore year. Students who take full loads each semester can attain a license in four years. Students must maintain a 2.75 GPA for student teaching. Students seeking teacher licensure must complete MN State requirements regarding human relations and drug education.

The Department of Child and Family Studies also offers a 23 credit minor without a teaching license. The CFS minor serves as an excellent complement to major fields such as Applied Psychology, Psychology, Social Work, etc.

### BACHELOR OF SCIENCE

The B.S. Major in Early Childhood Education includes the requirements for a MN Early Childhood Teaching License (80 credits total program.)

### BS with Early Childhood Education Licensure – Requirements Education Core: 14 credits

ED/CFS 200: Introduction to Education (3 Cr.), CFS 315 (4 Cr.), CFS 260 or CFS 220 (3 Cr.), HLTH 405 (2 Cr.), and 2 credits of educational technology with adviser's approval.

For licensure, students will be expected to demonstrate competence in the following areas: Theories of Learning, Human Development, Educational Assessment, Technology and Education, Education of People with Disabilities, Drug Awareness and Health Related Issues in Education Programs, Creating Learning Environments that Contribute to the Self Esteem of all persons and to Positive Interpersonal Relations and to Respect of Human Diversity and Personal Rights:

#### Early Education Block I. (16 cr.)

CFS 408, 413, 421/361, 422/362

#### Early Education Block II. (16 cr.)

CFS 226 or 405, 406, 426, and 1-8 credits from content areas of math/science; fine arts; and health (with adviser's approval).

#### Kindergarten/Primary Block (16 cr.)

ED 310, 412, 414, 416, and 418

#### Early Education Block III (17 cr.)

CFS 223, 423, 433, 460 and HURL 497

Major program is pending MnSCU approval.

**Early Childhood Minor**

The Department of Child and Family Studies offers a 23 credit minor that does not result in a teaching license. To be admitted to the minor program, students must have a 2.5 GPA. The Child and Family Studies minor serves as an excellent complement to major fields such as Applied Psychology, Psychology, Social Work, and Bachelor of Elective Studies.

The 23 credits for the minor include required courses: CFS 315, 421, 422, 220 or 260, and 6 credits of electives: ED 374, ED 351, CDIS 468, APSY 428, PSY 441, CFS 415, CFS 413, CFS 426, CFS 226, CFS 223, and CFS 406.

**COURSE DESCRIPTIONS****200. Introduction to Education**

Children and families, the role of the teacher, the role of schools and educational programs in communities and society, history and philosophy of education, educational futures, teacher education knowledge base, and contemporary issues. 3 Cr. F, S.

**+220. Introduction to Parents and Children**

Child development, parent development; the co-relationship between mothers and fathers and their children in the developing years. Traits and characteristics of healthy families. 3 Cr. F, S.

**223. Educational Strategies for Infants/Toddlers with/without Disabilities**

Teaching strategies for infants and toddlers with and without disabilities. Assessment, intervention, program development, home visiting and working as a team. Prereq.: College of Ed. CORE courses and admittance to Teacher Education. 1-4 Cr. S.

**226. Diversity in Early Childhood**

Young children's development of ethnic identity and attitudes. The impact on children of school, family, and community. The teacher's responsibilities for maintaining equity and modeling activism. 3 Cr. S.

**+260. Children in a Changing World**

Societal change, including the relationship between women and men, and its impact on childhood. Childhood in U.S. ethnic groups and in non-western cultures. Implications for those working with children in education, social services, health care, etc. 3 Cr. F, S.

**315. Introduction to Early Education**

Foundations, historical and theoretical backgrounds, models of early education, cultural relationships of teachers and young children. Early childhood special education requirements. Professional viewpoints from national organizations. 4 Cr. F.

**361. Practicum in Child Development**

Practicum in a setting with young children. Coreq.: 421. 1 Cr. F.

**362. Family Practicum**

Working with diverse families including those with children with disabilities. Conduct parent interviews. Interview teachers regarding family involvement strategies and design involvement plan, or do respite care for a family that has a child with a disability. Coreq.: 422. 1 Cr. F.

**363. Practicum in Early Childhood Methods**

Practicums in programs for young children. Prereq.: College of Education CORE courses and admittance to Teacher Education. 1 Cr. DEMAND.

**406. 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 practices in learning centers and dramatic play centers. Teacher behaviors and materials that promote early literacy development. Incorporating a variety of children's literature, i.e., multicultural, disability. 2 Cr. DEMAND.

**408. Authentic Assessment for Infants and Young Children.**

Authentic assessment strategies for infants, toddlers, and young children with and without disabilities. Includes observational strategies, play-based assessment and portfolios to link assessment to appropriate intervention. 3 Cr. F.

**413. Guidance of Young Children**

Managing the classroom and daily routines. Effective communication. Alternate solutions to discipline young children. Crisis management techniques including working with special education. 3 Cr. F.

**419. Professional/Ethical Considerations in Early Childhood**

Ethical decision making. Personal, professional, and legal considerations in working with young children and their families. 3 Cr. DEMAND.

**421. Development of Young Children**

Typical and atypical development of children, prenatal through 10 years. Methods of observation, application of development theories to early childhood practices. Coreq.: 361. 5 Cr. F.

**422. Family Studies: Parent Involvement**

Diverse families and their development including families with children with disabilities. Current issues impacting families. Communication strategies and parent partnerships. Needs of families and resources. Strategies for family involvement. Coreq.: 362. 3 Cr. F.

**423. Methods in Early Education**

Review knowledge of basic concepts of curriculum, materials, and methodology necessary for services to young children in inclusive educational settings. Prereq.: College of Education CORE courses and admittance to Teacher Education. 3 Cr. S.

**424. Administration of Early Education**

Programs in early childhood education. Current legislation. 2 Cr. DEMAND.

**426. Play as a Learning Medium**

How young children learn through play, environments of play, play therapy, the development of play, play curriculum. 3 Cr. S.

**433. Methods: Young Children with Disabilities**

Part of Methods Block designed to review knowledge of basic concepts of individualized group education for young children with and without disabilities. Understanding of curriculum, materials, and methodology necessary for young children with disabilities in ECSE and inclusive educational settings. Prereq.: Education CORE and admission to Teacher Education. 3 Cr. S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS****405/505. Selected Topics in Child and Family Studies**

Current issues, child/family programs, teaching methods. 1-4 Cr. May be repeated up to 4 credits. DEMAND.

**415/515. Foundations of Parent/Family Education**

Introduction to the history, philosophy and program models for parent/family education with emphasis on Early Childhood Family Education in Minnesota. Diverse family systems and needs for parent education. Professional and ethical behavioral outlined. 3 Cr. F.

**460/560. 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.

**461/561. 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.



## DEPARTMENT OF COMMUNICATION DISORDERS (CDIS)

A216 EDUCATION BUILDING/ 320-255-2092

**Chairperson** Gerald LaVoi. **Faculty:** Anderson, Brundage, LaVoi, Weise, Whites

The undergraduate degrees in Communication Disorders are offered at a pre-professional level to prepare students to pursue their interests in the profession of speech-language pathology. State Departments of Education and of Health as well as the national professional organization have established credentials governing the practice of speech language pathology. The master's degree is the minimum entry level credential for the independent practice of speech-language pathology in any employment setting.

Students majoring in CDIS are strongly encouraged to take two courses in mathematics/human biology/physical sciences and two courses in the social/behavioral sciences within the general education core. Standards for professional certification stipulate completion of a minimum of 6 credits in each of these two science areas.

Students pursuing a major in CDIS are encouraged to secure a CDIS adviser as early as possible. Admission to the degree programs in Communication Disorders is initiated with the CDIS departmental secretary in A216 Education Building. To be admitted to the CDIS major, a student should have completed 9 to 12 credits of CDIS courses and must have earned an overall grade point average of 3.00 or better. A student must be formally admitted to the major before enrolling in practicum. Students on the B.S. degree program should take the national Pre-Professional Skills Test (PPST) in order to enroll in upper-division classes offered through the College of Education and be admitted to teacher education.

### BACHELOR OF ARTS

#### Major (51)

CDIS 130, 220, 322, 324, 350, 420, 426, 433, 434, 441, 442, 452, 453, 457, 460, 461.

### BACHELOR OF SCIENCE

#### Major (81)

CDIS 130, 220, 322, 324, 350, 420, 426, 433, 434, 441, 442, 452, 453, 457, 460, 461, 465.

Regular and Special Education Core: ED 305, ED 371, APSY 262, APSY 463, SPED 403, CFS 422. Special requirements for teaching licensure in Minnesota: HLTH 405, HURL 499. Recommended electives: CDIS 171, ED 200, IM 421, 422, HLTH 125, CFS 423.

#### CDIS Minor: Speech-Language Pathology Emphasis (30)

CDIS 130, 220, 322, 324, 433, 434, 441, 460, 461.

#### CDIS Minor: Deaf Education Emphasis (31)

CDIS 130, 171, 220, 324, 420, 441, 442, 460, 461.

### BACHELOR OF ELECTIVE STUDIES

#### Major (32)

Completion of 32 credits with the approval of the department.

#### Minor (24)

Completion of 24 credits with the approval of the department.

### COURSE DESCRIPTIONS

#### +130. Introduction to Speech-Language Pathology and Audiology

Verbal communication disorders in children and adults; their incidence

and effect on the individual and community; treatment; speech-language pathology as a profession. 3 Cr. F, S.

#### +171. American Sign Language

Deaf culture and the development/role of American Sign Language.

Acquisition of receptive skills and expressive use of American Sign Language. 3 Cr. F, S.

#### +220. Phonetics

The international phonetic alphabet. The phonemes of the English language from physiological and phonological perspectives. Utilization of the IPA to improve pronunciation skills and understanding American dialects. 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 and Hearing Science I

Acoustics for audition and speech; integration of the physiological processes of respiration, phonation and articulation for normal speech production; technologies used in the study of normal hearing and speech phenomena. 3 Cr. F

#### 350. Introduction to Practicum

Facilities and equipment, clinical observation of speech and language behaviors; report writing, planning, therapy for different types of disorders; and application of principles of behavioral modification to therapeutic practices. 2 Cr. F

#### 380. Language Remediation for the Mentally Retarded & Language Handicapped Child

Language development; tests of language; methods and materials. Not open to majors in Communication Disorders. 3 Cr. F

#### 452. Practicum I

Supervised training in speech-language and hearing therapy techniques. Prereq.: 350, 434, and staff approval. 3 Cr. F, S.

#### 453. Practicum II

Supervised training in speech-language and hearing therapy techniques. Prereq.: 452 and staff approval. 3 Cr. F, S.

#### 465. Clinical Practice in the School

Supervised experience in assisting and managing the speech, language, and hearing problems of school-aged children. Must be taken following the completion of all other courses in the major. S/U Grading. 6 Cr. F, S.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 415/515. 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. 1-3 Undergr. Cr.; 1-2 Gr. Cr. SUM or DEMAND

#### 420/520. Speech and Hearing Science II

Application of procedures and instrumentation to clinical measurement of speech and voice. Contribution of acoustic and physiologic information to understanding speech production and perception and for assessment of speech and voice disorders. Prereq.: 324. 3 Undergr. Cr. 2 Gr. Cr. S.

#### 426/526. 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 Undergr. Cr. 2 Gr. Cr. F

#### 433/533. Voice and Fluency Disorders

Etiological factors; interdisciplinary approaches to assessment and treatment. Rationales for assessment strategies and treatment approaches. Prereq.: 322, 324. 3 Undergr. Cr. 2 Gr. Cr. S.

#### 434/534. 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 Undergr. Cr. 2 Gr. Cr. S.

#### 440/540. Communication Disorders of the Aged

Management of older persons with speech, language, and hearing problems. 2 Cr. F

#### 441/541. Hearing and Hearing Measurement

Human hearing sensitivity; causes and effects of hearing disorders, classification of hearing loss, and medical management procedures. Basic audiometric procedures. Laboratory participation and clinical competency demonstration required. 4 Undgr. Cr. 3 Gr. Cr. F

#### 442/542. Audiologic Rehabilitation

Effects of hearing loss on language and communication for children and adults. Interpretation of audiological results. Rehabilitation strategies. Audiogram interpretation and intervention planning. 4 Undgr. Cr. 3 Gr. Cr. S.

#### 457/557. 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.: 130. 3 Undgr. Cr. 2 Gr. Cr. S.

#### 460/560. Language and Language Development

Language concepts, theories and terminology. Normal development of language and current explanation of language acquisition. Prelinguistic, phonological, morphological, syntactic, semantic, and pragmatic areas. Intended for CDIS majors only or instructor permission. 4 Undgr. Cr. 3 Gr. Cr. F

#### 461/561. Language Disorders

Assessment and Intervention. Common language disorders. Assessing linguistic knowledge and usage. Training procedures for the remediation of language disorders. Prereq.: 460-560 or instructor permission. 4 Undgr. Cr. 3 Gr. Cr. S.

#### 466/566. Augmentative Communication Systems

Non-vocal communication techniques for non-speaking persons. Determining the most appropriate augmentative communication system for a particular client and teaching him/her how to use it. 2 Cr. F

#### 468/568. Child Language Development and Disorders

Language development from birth through adolescence emphasizing content and processes. Recognition of language differences and deficits and suggestions for teaching language skills to the preschool and elementary child. Not open to CDIS majors. 3 Cr. F, S

## COMMUNITY STUDIES, CENTER FOR (CS)

365 STEWART HALL/255-3947

*A center in the College of Social Sciences. Also see College of Social Sciences descriptions and requirements.*

**Coordinator** Pamela Mittlefehldt. **Faculty:** Karasik, Mehrhoff, Mittlefehldt, Morgan, Robertson, E. Simpson, L. Tripp.  
Office Manager: Iritz.

The Center for Community Studies integrates three degree-granting programs: American Studies, Gerontology, and Local & Urban Affairs. These three programs are partners in a commitment to foster the study, development, and enhancement of sustainable communities, with particular focus on Minnesota and the upper midwest region.

Central to the mission of the Center is the exploration and nurturing of the interrelationship of a *sense of community* with its focus on human interaction and social responsibility, and a *sense of place*, an essential element contributing to a community's heritage, identity, and future prosperity. The Center is dedicated to sustainable community development, which works to achieve a harmonious balance among socio-cultural, environmental, and economic amenities in urban, suburban, and rural communities.

Students who pursue a degree in any of the Center's three programs will strengthen their oral communications, writing, research, and critical thinking skills, all of which are vitally important for careers in the community services field. In addition, Community Studies programs place a high priority on applied student learning experiences - such as internships, volunteer experiences, and applied student research - which serves to enhance the student's employment prospects upon graduation. A degree in community studies helps prepare students for a range of career fields, including:

- ▼ Community development
- ▼ Health and human services
- ▼ Heritage preservation
- ▼ Community organization
- ▼ Environmental management
- ▼ Community education
- ▼ Social advocacy
- ▼ Housing
- ▼ Community/urban planning
- ▼ Historical societies

Community outreach is also an important dimension of the Center. Our goal is to establish partnerships with other institutions and organizations that will permit the Center to sponsor community-oriented symposia and workshops, to serve as a resource center for community concerns and issues in the upper midwest, and to provide students from the three programs with hands-on experience working directly with local communities.

#### Programs in the Center for Community Studies (consult individual program descriptions in this bulletin)

- ▼ American Studies
- ▼ Gerontology
- ▼ Local & Urban Affairs

#### BACHELOR OF ARTS

##### Minor (18)

Required (9): CS 201, 333, 466

•Nine (9) credits of electives related to community issues from the following departments or programs, with approval of CS adviser: AMST, ANTH, BIOL, CJS, CS, ECON, ENGL, ENV, ESCI, GEOG, GERO, HIST, HURL, MINS, POL, SOC, URB, WS. Other appropriate courses may be approved by the CS minor adviser.

#### COURSE DESCRIPTIONS

##### +201. Community in America

Sustainable communities and the dynamic forces which have shaped and continue to affect communities in America. 3 Cr. F, S.

##### 333. Studying Communities

Research on sustainable communities. Skills and techniques, models, and theoretical and ethical issues of studying community from the perspective of sustainability. Students will design, develop, and implement a community-based research project. 3 Cr. F

#### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

##### 455/555. Grant Development

Raising funds for public or non-profit organizations in Minnesota. Project or program design, budget creation, objective and result delineation and writing for grants from foundations, government and corporations. 3 Cr. S.

##### 466/566. Issues in Community Studies

A seminar on a special topic or issue in Community Studies. May be repeated under different topics. 3 Cr. ALT.

**COMPUTER SCIENCE (CSCI)**

139 ENGINEERING AND COMPUTING CENTER/255-4966

**Chairperson** Larry Grover. **Faculty:** Bashir, Dathan, Fisher, Grover, R.W. Johnson, Julstrom, Ramnath, Schoenberger.

*The Department of Computer Science offers rigorous, technical programs in computer science.*

The Computer Science Department offers two majors: a 78- to 80-credit Bachelor of Science in Computer Science and a 47-credit Bachelor of Science in Applied Computer Science. These programs offer students an introduction to the theoretical and practical foundations of computer science with emphases in data structures, computer architecture, operating systems, file processing, programming languages, and ethics in computing. Students may earn credits for supervised internship work in cooperation with regional industries when they have completed certain required computer science courses; however, internship credits do not apply toward satisfying requirements for the majors.

The Bachelor of Science in Computer Science program is accredited by the Computer Science Accreditation Commission (CSAC) of the Computing Sciences Accreditation Board (CSAB), a specialized accrediting body. Since it follows the Association for Computing Machinery (ACM) guidelines on curriculum, students completing this degree should be able to:

- ▼ Write correct, well-documented and readable programs in a reasonable amount of time.
- ▼ Determine if they have written an efficient and well organized program.
- ▼ Know what general types of problems are amenable to computer solution and the various tools necessary for solving such problems.
- ▼ Assess the implications of work performed either as an individual or as a member of a team;
- ▼ Understand basic computer architecture;
- ▼ Pursue in-depth training in one or more application areas or further education in computer science.

The high school student considering computer science should take college preparatory courses. These courses should develop the ability to think logically, to analyze, and to organize. Courses in algebra, geometry, trigonometry, precalculus, mathematics, and the sciences are of great benefit.

The first course (CSCI 201) in the computer science major does not require prior programming experience or other computer-related experience. However, it does require a proper mathematical background. The computer science curriculum contains mathematics courses which provide the mathematical expertise essential to the computer scientist. Students who want to complete their degree in four years must begin taking these courses in their first semester at SCSU.

Transfer students should complete the calculus and science sequences prior to transferring. The department will evaluate previous computer course work and arrange for possible advanced placement in the CSCI courses.

The computer science programs require a minimum grade of "C" in all specifically-listed departmental prerequisite courses. (For example, if a student receives a "D" in CSCI 201, then he or she cannot take CSCI 202 because CSCI 201 is a prerequisite.) A minimum grade of "C" is also required in all courses to be applied toward a departmental major or minor program.

All students must complete MATH 221 and 253, and CSCI 201 and 202 with a "C" or better in each course to be considered for a computer science major or minor program. Students in all computer science major or minor programs are required to maintain at least a 2.50 GPA in their program courses as well as in all university courses, including transfer credits. When a student retakes courses required for

a computer science major or minor, the GPA computation will be based on all attempts. Failure to maintain a 2.50 GPA can lead to dismissal from the computer science major or minor. In addition, a student who withdraws from four or more computer science classes may be denied entry into or dismissed from the major or minor.

Students who meet the following requirements may apply for early admission to any of the major or minor programs:

- a. Completion of at least 12 credit hours in the program for which they are applying (this includes mathematics and science courses);
- b. Have earned at least a 3.50 GPA in the computer science program without repeats or withdrawals;
- c. Have earned at least an overall 3.00 GPA.

Entry into all computer science programs requires the approval of the Computer Science Admissions Committee which meets three times during each academic year. No student may register for courses numbered 300 or above in computer science until he or she is admitted to an appropriate major or minor program.

Before applying for the 47-credit major, a student must be accepted into an approved minor or second major.

**BACHELOR OF SCIENCE: Computer Science**

This program is accredited by the Computer Science Accreditation Commission (CSAC) of the Computing Sciences Accreditation Board (CSAB), a specialized accrediting body.

**Major (78-80) (Non-Teaching) – CSAB Accredited**

CSCI 201, 202, 220, 310, 320, 330, 331, 332.  
MATH 221, 222, 253.

Select one course from: STAT 353, 417, 447.

Select one course from: ENGL 332, SPC 341.

Select one course from: MATH 311, 312, 321, 325, 353, 452, 461, 462, 465.

Select at least 12 credits from the following science courses. You must include both courses in one of the required sequences, plus one or two from the elective courses.

Required sequence (one of):

- a. PHYS 231, 232
- b. PHYS 234, 236
- c. BIOL 151, 152
- d. CHEM 210, 211

Elective courses (different from those in your chosen required sequence):

ASTR 311, 312; BIOL 151, 152, 212, 214; CHEM 207, 210, 211, EE 201; ENGR 332; ESCI 220, 260; PHYS 231, 232, 234, 235, 328, 329, 333

CSCI Electives: select 15 credits from at least 3 of the following areas, with the approval of your computer science adviser.

Theory: 402, 403, 404  
Architecture: 420  
Systems: 411, 412, 413  
Artificial Intelligence: 440, 441, 442  
Software Engineering: 430, 431, 432  
Misc.: 450

Note: The set of 400-level courses is updated regularly; check with the Department of Computer Science or the most current list.

**BACHELOR OF SCIENCE****Applied Computer Science****Major (47) (Non-Teaching)**

This program requires an approved minor or second major.

CSCI 201, 202, 220, 310, 320, 330, 331, 332

MATH 221, 253

ENGL 332 or SPC 341

CSCI Electives: 6 credits at 400-level with approval of your computer science adviser.

*Note: the set of 400-level courses is updated regularly; check with the Computer Science Department for the most current list.*

#### BACHELOR OF ARTS

##### Computer Science Minor (25)

CSCI 201, 202, 220, 320

MATH 221, 253

#### BACHELOR OF SCIENCE

##### Computer Science Education

##### Minor (19) (Teaching -non-certified)

CSCI 201, 482

MCS 397

MATH 221, 253

#### BACHELOR OF ELECTIVE STUDIES

##### Computer Science

##### Minor (24)

Completion of 24 credits with the approval of the department.

#### COURSE DESCRIPTIONS

##### +169. Computers in Society

Same as MCS 169. History, moral and social implications of computer technology, problem solving, extensive hands-on microcomputer experience involving software packages (including word processing, database management, spreadsheets). 3 Cr. F, S, SUM.

##### 201. Fundamentals of Computer Science

Use of a modern programming language and appropriate mathematical concepts to introduce algorithm design, problem solving and elementary data structures and algorithms. Lab. Prereq.: MATH 112. 4 Cr. F, S.

##### 202. Introduction to Algorithms and Data Structures

Data abstraction, data encapsulation, linear data structures, trees, binary trees, directed and undirected graphs, searching and sorting, program layering, recursion, performance analysis, recurrence relations, program robustness and correctness. Prereq.: 201, MATH 221. Coreq.: MATH 253. 4 Cr. F, S.

##### 220. Computer Architecture I

Mathematical concepts of Boolean algebra. Combinational and sequential logic. Registers, counters, memory and arithmetic design. Lab. Prereq.: MATH 253. Coreq.: 202. 4 Cr. F.

##### 260. Programming in C

Study of the features of the C programming language. Application of C in problem solving. Prereq.: programming experience in a block-structured language. 2 Cr. F, S, SUM.

##### 261. Programming in C++

Study of the features of the C++ programming language. Application of C++ in problem solving. Prereq.: 260 or equivalent. 2 Cr. F, S, SUM.

##### 310. Operating Systems

Multiprogramming operating system concepts. System structures, functions and services. Process scheduling and synchronization. Primary storage management. Secondary storage organization, directory and file

management concepts. Access control and information security. Prereq.: 202, 320. 4 Cr. F.

##### 320. Computer Architecture II

Hardware organization and implementation of computer architecture. Instruction set considerations and addressing modes. System control concepts. CPU control, microprogramming, I/O interface and memory organization. Projects for current applications. Lab. Prereq.: 220 or EE 221. 4 Cr. S.

##### 330. Programming Language Concepts

Survey of several high-level languages, their compilers and inherent data structures. Formal description of high-level languages. Prereq.: 331. 3 Cr. S.

##### 331. Software Systems

Problem solving strategies and concepts applied in the context of issues associated with the design and implementation of software systems using a combination of current software packages/environments. Subjects addressed include file processing, data modeling and mapping to storage structures, data base systems, and software design and implementation. Prereq.: 202. 3 Cr. F.

##### 332. Computing Ethics

Issues of software reliability and risk, private property, gender, minority, multicultural perspectives, privacy, the effect of value systems on computer science. Issues of computer ethics affecting individuals and society. Coreq.: 330 or permission of instructor. 3 Cr. S.

##### 444. Internship

Supervised training opportunity provided by industry or educational



institution. Prereq.: 320 3-12 Cr. F, S, SUM.

##### 480. Computer Seminar

Reading, research and discussion of selected topics. Prereq.: consent of instructor. 1 Cr. DEMAND.

##### 490. Practicum in Computer Science

Supervised programming for various departments. Can be repeated for a maximum of 6 credits. Prereq.: approval of department. 1-2 Cr. DEMAND.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

**402/502. 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.

**403/503. 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.

**404/504. Design and Analysis of Algorithms**

Computing time functions; maximum, minimum and average computing time of various algorithms. Prereq.: 331, MATH 253. 3 Cr. DEMAND.

**411/511. Database Theory and Design**

Principles of database systems, theory of relational databases, design techniques, concurrency control and recovery, object-oriented systems. Prereq.: 331. 3 Cr. DEMAND.

**412/512. Distributed Systems Principles**

Distributed systems architecture. Process synchronization. Distributed operating systems, file systems and database systems. Projects. Prereq.: 310. 3 Cr. DEMAND.

**413/513. 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.

**420/520. Advanced Computer Architecture**

Advanced computer architectures. Theories of parallel processing; multiprocessing algorithms and languages. Prereq.: 320 or EE 421. 3 Cr. DEMAND.

**421/521. 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

**430/530. 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.

**431/531. 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.

**432/532. 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.

**440/540. Introduction to Artificial Intelligence**

Heuristic versus deterministic methods, game playing programs, theorem proving programs, decision making programs. Prereq.: 330, MATH 253. 3 Cr. DEMAND.

**441/541. 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.

**442/542. 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.

**450/550. 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.

**475/575. 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. 1-6 credits. May be repeated for up to a maximum of 6 credits. DEMAND.

**CRIMINAL JUSTICE STUDIES (CJS)**

Department Office: 257 STEWART HALL/255-4101

Graduate Assistants: 222 STEWART HALL/255-3016

Also see College of Social Sciences description and requirements.

**Chairperson** Charles Seefeldt. **Faculty:** Andzenge, Campbell, Clifford, Maloney, V. Lane, Lawrence, Prout, Schreiber, Seefeldt. **Adjunct Faculty:** Altobell, Bentrud, Boeckers, Boland, Burton, Caldecott, Dickinson, Gau, Harrell, Hayden, Johnson, Klapthake, Lorette, Nielsen, Norman, Olson, Price, Samuel, Schuh, Schumann, Snyder, Sostak, Stambaugh, Stille, Wippler, Wirth, Yunker.

The baccalaureate degree program emphasizes the inter relatedness of law enforcement, court services, corrections, juvenile justice, and private security within the criminal justice continuum. If students wish to specialize in a subfield of the continuum, they must first receive an exposure to the total system. After this balance the students can then pursue their specialization through formal instruction, seminars, internships, and independent study. Criminal justice majors may also choose not to specialize but to continue an in depth study within the general field of criminal justice.

Additional credit hours beyond the General Education requirements, prerequisite courses, and the minimum 45 semester hours necessary for a major in Criminal Justice Studies are needed to meet the 120 semester hours of credit necessary for the Bachelor of Arts degree. This additional course work is recommended in both cognate and elective areas; the former includes biology, chemistry, economics, political science, psychology, social work, and statistics; and the latter includes education, English, Spanish, history and philosophy.

The Department suggests that the required course STAT 219 be completed before enrolling for CJS 387.

Prerequisite for admission to the Criminal Justice major and minor program is a 2.65 GPA overall SCSU course work. A requirement for graduation with a major in criminal justice studies at St. Cloud State University is researching, writing and orally defending a senior thesis. This requirement is completed in CJS 488 Senior Thesis.

**Licensure**

The Minnesota Peace Officers Standards and Training (POST) Board criteria state that students who wish to pursue a career in law enforcement in Minnesota must meet licensing requirements for both education and training. The Criminal Justice Department at St. Cloud State University has been certified as a provider of the academic law enforcement licensing core. The following are the courses designated by the POST Board as required for meeting the educational portion of peace officer certification: For students attending Alexandria and Hibbing Skills, the following are required; CJS 421 (Parts 1, 4, 6, 7); 422 (Parts 2, 3, 5), 431; CHEM 207, CHEM 307. Students also must be certified in one of the following: Red Cross Advanced First Aid, Crash Injury Management (CIM/First Responder), or Emergency Medical Technician (EMT). Students attending Hibbing skills are also required to complete TSE 391.



**BACHELOR OR ARTS****Major (45)**

Required: (36 Cr.)

CJS 111, 287, 387, 411, 415, 420, 430, 431, \*\*488, 489; SOC \*367, STAT \*\*\*219.

Electives: (9 Cr.)

CJS 100, 101, 201, 244, 250, 325, 421, 422, 433, 440, 441, 444, 445, 446, 450, 451, 455, 461, 489, 495, 188-388 (1-12 Cr.); 199-499 (1-16 Cr.); CHEM 207, 307; ECON 381; ENGL 216; GEOG 490; TSE 391, 405; HLTH 305; HIST 350; PHIL 115, 482; POL 413, 485, 491, 492; SOC 304, 366, 368; SPC 412; SSCI 460.

**Minor (21)**

Required: (12 Cr.)

CJS 111, 411, 415; SOC \*367.

Electives: (9 Cr.)

The 9 credit hours of elective courses must be chosen from those courses offered within the program major.

\*SOC 160 is prerequisite for all SOC courses.

\*\*Prerequisite: CJS 387.

\*\*\*Prerequisite: MATH 103 or 112, STAT 103 or equivalent.

**Private Security Minor (27)**

This minor is designed to develop in students the understandings, skills and insights necessary for success in a career in the unique blend of management and criminal justice that is loss prevention/asset protection.

Required: (21 Cr.)

CJS 250, \*430, \*431, 455, MGMT 301, 352, FIRE 375.

Electives: (6 Cr.)

Elective courses chosen with adviser approval based upon the student's career goals.

\*In order to avoid overlapping of courses, criminal justice courses may not be used to satisfy requirements of both the criminal justice major and private security minor. Students majoring in criminal justice and minoring in private security must substitute another course with adviser approval for CJS 430 and 431.

**BACHELOR OF ELECTIVE STUDIES****Major (36)**

Completion of 36 credits with the approval of the chairperson. Contact Center for Continuing Studies (CCS)/255-3081/prior to contacting a Criminal Justice Academic Adviser.

**Minor (27)**

Completion of 27 credits with the approval of the chairperson. Contact Center for Continuing Studies (CCS)/255-3081/prior to contacting a Criminal Justice Academic Adviser.

**COURSE DESCRIPTIONS****+100. History of Criminal Justice**

The historical development of the Anglo-American criminal justice system from its inception to the Omnibus Crime Control and Safe Streets Act of 1968. 3 Cr. DEMAND.

**+101. Survey of Criminal Justice**

Purpose of law enforcement, courts, penal institutions, probation, and parole. The role of the police officer in contemporary society. 3 Cr. DEMAND.

**+111. Crime and Justice in America (MGM)**

Components, structure, and functioning of the criminal justice system in America: crime victims, law enforcement, courts, corrections, probation, parole, community corrections and juvenile justice. Document the failures of the system to provide equal justice to all people, especially women, children, and people of culturally diverse backgrounds. 3 Cr. ANNUAL.

**188, 288, 388. Individual Research**

Directed study in an approved area of criminal justice. Permission required. 1-3 Cr. per course. 12 Cr. max. F, S.

**244. Internship**

Permission required. 1-12 Cr. F, S, SUM.

**250. Introduction to Private Security**

Threat assessment, risk prevention, protection of assets, security systems, and the issues, standards, and goals of private security. Prereq.: 111 or permission. 3 Cr. ANNUAL.

**287. Research in Criminal Justice**

Identifying the major issues and topics for criminal justice research, and preparing a research proposal. 3 Cr. ANNUAL.

**387. Criminal Justice Research Methods**

Research designs, conceptualization, and operationalization of research methods; qualitative and empirical methods of inquiry; analytical techniques, data collection and processing; interpretation of criminal justice research findings. Prereq.: 111, 287, STAT 219. 3 Cr. ANNUAL.

**411. Organization and Administration in Criminal Justice**

Current theories of organization as they relate to the needs of the criminal justice process. Prereq.: 111 or permission. 3 Cr. ANNUAL.

**415. 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; policies and strategies of intervention; decision-making in sentencing and parole; and treatment and organization as they relate to the criminal justice process. Prereq.: 111 or permission of instructor. 3 Cr. ANNUAL.

**420. Critical Issues in Law Enforcement**

Issues facing law enforcement officials in a free society. Ethnic tension, civil disobedience, police conduct, unionization, civil disturbances, and professionalism within law enforcement. Prereq.: 111 or permission. 3 Cr. ANNUAL.

**421. Peace Officers Standards and Training: Administration, Parts 1, 4, 6, 7**

Principles of law enforcement, career influences, stress/crisis intervention, crime prevention, community relations, court testimony, law enforcement communications, and cultural awareness. 3 Cr. ANNUAL.

**422. Peace Officers Standards and Training: Statutes, Parts 2, 3, 5**

Minnesota statutes relating to the Minnesota Criminal Code, Minnesota law enforcement procedures relating to search, arrest, confessions, identification, and evidence, and Minnesota Statutes relating to juvenile justice. 3 Cr. ANNUAL.

**430. Criminal Law**

Principles of criminal liability, defenses to criminal prosecution, elements of major crimes. Prereq.: 111 or permission. 3 Cr. ANNUAL.

**431. Criminal Procedure**

Law of criminal procedure from arrest through post-trial proceedings. Prereq.: 111 or permission. 3 Cr. ANNUAL.

**433. Ethical Studies in Criminal Justice**

Ethical decisions relating to criminal justice issues. 3 Cr. DEMAND.

**441. Correctional Alternatives**

Alternatives to incarceration: 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. Prerequisite 111 and 415. 3 Cr. DEMAND.

**444. Internship**

Permission required. 1-12 Cr. F, S, SUM.

**445. Crisis Intervention**

History, theory and methods of crisis intervention, especially as used in the criminal justice system. 3 Cr. DEMAND.

**446. 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.

#### 450. 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; juvenile corrections. Prereq.: 111 or permission of instructor. 3 Cr. DEMAND.

#### 455. Private Security and the Criminal Justice Community

The powers and authority of private security personnel. Requirements of and restrictions on private security. Criminal and civil liabilities faced by private security personnel. Prereq.: 250 or permission. 3 Cr. DEMAND.

#### 461. Juvenile Legal Process

Legal background and basis for separate juvenile statutes and justice system; legal procedures for arrest, investigation, and adjudication of juvenile offenders; legal cases relating to rights of juveniles; Minnesota procedure. 3 Cr. DEMAND.

#### 488. Senior Thesis

Individual research project based on an accepted thesis proposal. Student will design a study; review literature related to the selected topic; collect information and/or data via library documents, criminal justice agency records, interviews, or social research methods; analyze the data and information; and report the results in a formal thesis. Prereq.: 387. 3 Cr. F, S.

#### 489. Seminar in Criminal Justice

Special issues in the fields of corrections, law enforcement, and the general areas of the administration of justice; examinations of issues and trends which promise to affect the future. May be repeated for a maximum of nine credits. 3 Cr. ANNUAL.

## EARTH SCIENCES (ESCI)

### 46 MATHEMATICS AND SCIENCE CENTER/255-3260

Also see *College of Science and Engineering* description and requirements.

**Chairperson** Garry Anderson. **Faculty:** A.C. Anderson, G. Anderson, Hoff, Nastrom, C.L. Nelson, Weisman.

The earth sciences available in these programs includes geologic, atmospheric and water sciences.

The Bachelor of Arts degree is designed for students who will terminate at the bachelor's level to seek employment and for students who will be continuing in graduate school. Students completing the Bachelor of Science in meteorology will be fully prepared for a career in meteorology and for advanced study. The Bachelor of Science degree (teaching) is intended to satisfy requirements for teacher licensure as determined by the State Department of Education.

Earth sciences are basically applied sciences, and as such draw heavily upon the disciplines of mathematics, physics, chemistry, and biology. Consequently, prerequisites in these basic sciences are required and earth sciences students are encouraged to take minors in these fields.

#### BACHELOR OF ARTS

##### Major (65)

To complete the major, students must take a core of required courses (36 to 38 credits) and must pursue one of the tracks described below: Core: ESCI 220, 230, 260, 450; CHEM 210; MATH 221, 222; PHYS 231, 232 (or PHYS 234, 235).

#### General Earth Science Track:

ESCI (15) electives numbered 200 or above with adviser approval. Electives (12-14) numbered 200 or above from BIOL, CHEM, ESCI, GEOG, MATH, PHYS with adviser approval.

#### Geology Track:

ESCI (22) 307, 320, 322, 325, 420, 424; CHEM 211; Electives (1-3) numbered 200 or above from BIOL, CHEM, ESCI, GEOG, MATH, PHYS with adviser approval. A summer geologic field course is recommended.

#### Hydrology Track:

ESCI (14-15) 332, 334; 336 and 432 or 338 and 434; Electives (12-15) numbered 200 or above from BIOL, CHEM, CSCI, ENV, ESCI, GEOG, MATH, PHYS, STAT with adviser approval.

Before completing MATH 221; MATH 052 and 134 are required for students who have not completed high school algebra (or equivalent) and high school trigonometry (or equivalent).

#### Minor (32)

ESCI 220, 230, 260; PHYS 231 or 234, CHEM 210. Electives (11-12) numbered 200 or above from MATH, PHYS, CHEM, BIOL, ESCI, GEOG taken with the approval of the earth sciences adviser.

## BACHELOR OF SCIENCE-METEOROLOGY

The meteorology major meets the guidelines for bachelor's degree programs set forth by the American Meteorological Society. It also fulfills the requirements for Federal meteorologist positions specified by the National Weather Service. Students should note the Meteorology requires prerequisites in Mathematics and Physics and should plan to begin this supporting work as soon as possible.

#### Major (75)

ESCI 160, 220, 230, 260, 364, 365, 375, 380, 385, 450, 465, 475; MATH 221, 222, 334; PHYS 234, 235; CHEM 210; STAT 229 or 353; EE 155 or CSCI 260; Electives (5-6) chosen with the approval of the student's adviser.

Because of the extensive coursework in the sciences and mathematics, students graduating with a major in meteorology are considered as having satisfied the 9 credit general education requirement in natural sciences and mathematics.

## BACHELOR OF SCIENCE - TEACHING (59)

The following program meets the State of Minnesota requirements for teaching earth science in grades 9-12. Students planning to become licensed to teach earth science should contact an adviser at the earliest opportunity.

ESCI 220, 230, 260, 300, 407, 444; ASTR 205; BIOL 151; CHEM 210; PHYS 231; SCI 321, 322, 430, 440; plus 11 credits of electives with adviser approval from the following: ESCI 320, 322, 332, 334, 380, 435.

#### Minor (40)

ESCI 220, 230, 260; PHYS 231; CHEM 210; BIOL 202, 203; ASTR 205; or ESCI 435.

Elective credits with adviser approval from BIOL, ESCI, GEOG, ASTR to bring total to 40 credits.

## COURSE DESCRIPTIONS

### +104. Introduction to Atmospheric Science

Introductory study of the earth's weather. Topics include atmospheric composition, earth's energy budget, atmospheric motions, clouds and precipitation, climate change, measurement of weather data and interpretation of weather maps. Lab. 3 Cr. F, S, SUM.

### +105. The Water Environment

A study of the physical inter-relationships between oceans, lakes, and rivers, with individual lab experience. Lab. 3 Cr. F, S, SUM.

### +106. Introduction to Earth Sciences

Concepts from near-space astronomy, meteorology, oceanography, and geology. 3 Cr. F, S, SUM.

### +109. The Geologic Environment

The study of the basic concepts of geology and the utilization of these

concepts to develop an understanding of the dynamic earth, with individual lab experience. Lab. 3 Cr. F, S, SUM.

### 160. Professional Meteorology

Overview of the requirements and career choices for meteorologists. Survey of recent developments, educational demands and student opportunities. 1 Cr. S.

### 220. Physical Geology Systems

Earth materials and plate tectonics are used to investigate deeply-buried, plutonic igneous and metamorphic systems and surface systems including sedimentary, fluvial and glacial. Lab. Prereq.: CHEM 210 or high school physics and chemistry. 4 Cr. F, S.

### 230. Dynamic Water Systems

Introduction to the water cycle with emphasis on surface hydrology, ground-water hydrology, and physical oceanography. Quantitative and qualitative study of groundwater, streams, and ocean currents and waves. Field and hands-on laboratory work. Lab. Prereq.: high school chemistry and physics. 4 Cr. F, S.

### 235. Physical Oceanography

A descriptive study of currents and circulation of ocean waters; waves; tides; acoustical, chemical and optical oceanography; sea, ice, heat budget of the oceans; and coastal processes. Lab. Prereq.: 230. 2 Cr. DEMAND.

### 260. Introductory Meteorology

Atmospheric structure and processes, including radiant energy, humidity, clouds, winds, global circulations, weather map interpretation, climate regimes, air pollution and climate change issues, severe weather, calculation of physical processes. Lab. Prereq.: PHYS 231 or 234 or equiv. 4 Cr. F, S.

### 265. General Meteorology

Atmospheric structure and processes, radiant energy, humidity, clouds, winds, introduction to weather maps, climate change issues, severe weather, calculation of basic physical processes. Lab. Prereq.: PHYS 231 or equiv. 3 Cr. F, S.

### 300. Environmental Earth Science

Basic concepts of earth sciences applied to the dispersion of pollutants and the management of earth resources using the economic, political, and values systems of the world. Prereq.: 220. 2 Cr. S.

### 302. Earth Sciences for Elementary Teachers

Concepts in rocks, water, weather, and planets with emphasis on appropriate classroom activities for the elementary school. Lab. 2 Cr. F, S.

### 307. Field Geology

Field based problem solving of local geological relationships in central Minnesota, as well as several extended field trips to geologically significant areas in the upper midwest. Prereq.: 220. 3 Cr. F

### 320. History of Earth Systems

Geologic history of earth systems as it is interpreted from the stratigraphic record, with a special emphasis on tectonic movements and sedimentary environments. Lab. Prereq.: 220. 4 Cr. S.

### 322. Surficial and Glacial Geology

A survey of the geologic processes responsible for the development of landforms. Glacial geology will be strongly considered. Prereq.: 220. 3 Cr. F, ALT.

### 325. Earth Materials

A study of the physical and chemical properties of minerals and the origin and genesis of sedimentary, metamorphic, and igneous rocks. Lab. Prereq.: 220; CHEM 210. 5 Cr. F.

### 332. Physical Hydrogeology

Principles of ground-water movement. Topics include wells and water supply; pump test analysis of aquifer characteristics; regional ground-water flow; geologic controls on ground-water occurrence; vadose zone processes; and ground-water interactions with wetlands, lakes and streams. Field and Lab. Prereq.: 230. 4 Cr. F.

### 334. Surface Hydrology

Rainfall-runoff analysis, unit hydrologic simulation models (HEC-

1&2), urban hydrology, and floodplain hydraulics. Field and Lab. Prereq.: 230. 4 Cr. F, S.

### 336. Chemical Hydrogeology

Study of ground-water chemistry, ground-water contamination, and clean-up. Topics include review of principles of aquatic chemistry; chemistry of natural ground waters; water-quality standards; contaminant detection and migration; remediation and treatment techniques; and ground-water risk assessment. Prereq.: 230. 3 Cr. DEMAND.

### 338. River Hydraulics

Study of water flow in rivers. Topics include hydraulics of flow in river channels, sediment movement, river engineering, analytical river morphology, meander processes, and modeling of erodible channels and alluvial rivers. Lab. Prereq.: 230 and 334. 4 Cr. S.

### 360. Aviation Meteorology

Atmospheric structure, events, observations of special significance to aviation, including charts, data formats, forecast products, stability, icing, jet streams. Prereq.: 265. 3 Cr. S.

### 364. Meteorological Instruments

Physical principles of measurement with emphasis on meteorological instruments. Sensor types and characteristics, performance standards, sources of errors, exposure. 2 Cr. F.

### 365. Physical Meteorology

Dry and moist air thermodynamics, analysis, stability, radiant energy transfer, precipitation formation, equations of motion. Mathematical treatment includes differential and integral calculus. Prereq.: 260; PHYS 235; MATH 222. 3 Cr. S, ALT.

### 375. Atmospheric Dynamics

Atmospheric energy and body forces, geostrophic, gradient and thermal wind, equations of motion in rotating coordinate system, circulation, vorticity, friction layer winds, tendency equation. Prereq.: 260; PHYS 234; MATH 222. 4 Cr. F, ALT.

### 380. Introduction to Forecasting

Instruction in operational weather forecasting. Interpretation of weather charts, raw weather data, and derived field during daily forecasting activity. Bi-weekly interpretation and application of theoretical concepts to current data analysis. Prereq.: 260 or permission of instructor. 2 Cr. F, S.

### 385. Synoptic Meteorology

Analysis of cold-season mid-latitude weather systems, severe weather triggering mechanisms. Illustration and computation of basic precipitation producing mechanisms such as warm advection, vorticity advection, application of continuity equation. Lab. Prereq.: 375, 380. 4 Cr. S, ALT.

### 386. Micrometeorology

Small-scale meteorological process in the planetary boundary layer. Energy budgets, measurements, turbulent transport, applications including air pollution. Prereq.: 385. 3 Cr. S, ALT.

### 387. Broadcast Meteorology

Preparation and broadcast of radio and television forecasts through hands-on exercises. Heavy emphasis on creative writing skills and chroma-key techniques. Employment opportunities and their development. Several classes held at Twin-Cities television studios. Prereq.: 380. Permission only. 2 Cr. DEMAND.

### 401. Earth Sciences Field Studies (Topical)

Selected field trips to examine exemplary environments and apply field techniques. Minimum of five days spent at natural areas such as Grand Canyon and the Florida Keys. Arranged instructional sessions may be required before or after trip. Extra fees. By permission only. 1-3 Cr. Repeated with adviser approval to maximum of 9 Cr. DEMAND.

### 429. 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.

### 432. Ground-Water Modeling

Study of ground-water modeling from both theoretical and practical perspectives. Topics include principles of applied mathematical model-



ing—analytical, numerical, and stochastic models; modeling of ground-water flow; and modeling of contaminant transport. Significant hands-on computer modeling using several full-scale scientific and commercial modeling programs. Prereq.: 332 and 336. 3 Cr. DEMAND.

#### 434. Surface Water Modeling

An advanced study of water flow in rivers. Computer-assisted flood-plain hydrology and hydraulics. Topics include training in the use of HEC-simulation software, hydraulics of flow in river channels, sediment movement, and interaction with artificial structures. Lab. Prereq.: 230, 334, and 338. 3 Cr. DEMAND.

#### 435. Planetology

Planetary atmospheres, planetary models and internal structures, formation of surface features and comparative planetology. Prereq.: 220 or 235 or 260. 3 Cr. W, ALT.

#### 440. Topics in Hydrology

Non-sequence courses designed for intensive study of a special topic. Topic announced in class schedule. Prereq.: department approval. May be repeated to a maximum of 9 credits. Lab. 3-9 Cr. DEMAND.

#### 450. Investigations in Earth Science

This course is designed to give the student an opportunity to pursue a program of concentrated study or research in some area of earth science that is of particular interest. All B.A. majors in ESCI and B.S. majors in meteorology are required to earn 3 Cr. 1-3 Cr. DEMAND.

#### 455. Selected Topics in Fluid Mechanics

Non-sequence courses designed for intensive study of a special topic. Topic announced in class schedule. Prereq.: PHYS 235, MATH 222, department approval. 3 Cr. DEMAND.

#### 465. Physical Meteorology II

Continuation of ESCI 365. Gravitation, geopotential, isentropic processes, second law of thermodynamics, cloud physics, cloud modification, radiative transfer, Planck's law, satellite measurement of radiation, atmospheric optics. Prereq.: 365. 3 Cr. S, ALT.

#### 468. Radar and Satellite Meteorology

Principles of weather radar observations; reflection mechanisms; Doppler radar methods and their application in storm detection, analysis, and forecasting; wind profilers. Visible and infrared cloud satellites; global observation of temperature and moisture. Prereq.: 365 or approval. 3 Cr. DEMAND.

#### 475. Advanced Atmospheric Dynamics

Rossby waves, barotropic instability, theoretical development and motion of mid-latitude synoptic systems, perturbation theory, two-layer model, baroclinicity and quasigeostrophic dynamics. Prereq.: 375; MATH 222. 4 Cr. S, ALT.

#### 485. 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.

#### 486. Mesoscale Meteorology

Methods of observing mesoscale motion systems; waves, turbulence, and convection; theoretical and computer models; analysis and forecasting applications. Prereq.: 385. 3 Cr. DEMAND.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE COURSES

#### 402/502. Earth Sciences Institute

Selected topics in earth science for experienced teachers. 2-4 Cr. DEMAND.

#### 407/507. Minnesota Rocks and Waters

Geologic history, mineral resources and regional geology of Minnesota. Prereq.: 220 or consent of instructor. 3 Cr. S, SUM.

#### 420/520. Seminar

Lectures, readings, discussions on selected topics. May be repeated. 1-3 Cr. F, S.

#### 424/524. Tectonic Systems

Plate tectonic context for faults and folds. Describe and contrast tectonic systems at plate margins and in intra-plate settings. Lab. Prereq.: 320. 4 Cr. S.

#### 456/556. Methods and Materials for Teaching Earth Science

Modern techniques and curricula for teaching secondary school earth science. 3 Cr. F, S.

#### 460/560. 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.

#### 466/566. 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.

#### 467/567. 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.

### EAST ASIAN STUDIES (EAST)

278 STEWART HALL/255-4935 OR 255-3165

*A program of the Department of History.*

**Director** Alton Wolfer. **Faculty committee:** A. Hanafy, Fuller, R. Lewis, O'Toole, O.H. Schmidt, Schwerdtfeger, Wolfer, Zuo.

The tri-college East Asian studies program is a cooperative effort to improve opportunities for students to learn about that area of the world. Students who participate in the program register and pay fees on their own campus, but may travel to one of the other two campuses for instruction. Courses listed at St. Cloud State University are handled in the regular way, but students who elect to take courses at the College of

St. Benedict (CSB) or St. John's University (SJU) should consult with the campus coordinator in advance.

East Asian studies is an interdisciplinary study of China and Japan. The courses included in the program are drawn from several departments and colleges of the university. Opportunities are available to complete a substantial part of your coursework in international programs at Nankai University, Tianjin, People's Republic of China and the Minnesota State University campus at Akita, Japan. The East Asian studies minor is of particular value to students interested in pursuing majors with an international dimension.

## BACHELOR OF ARTS AND BACHELOR OF SCIENCE

### Minor (24)

Required Courses (6 Cr.):  
EAST 363 and 364

Select 9 Cr. from at least 2 fields:

ANTH 356; ECON 480; GEOG 269; HIST 365, 369, 467; POL 336; REL 340; SSC1 470 (Area Studies-Japan or China); JPN 131, 132, 133, 211, 212, 213; HIST 114, 115, 316, 317, 319, 386, (CSB/SJU); GOVT 346 (CSB/SJU); CHIN 111, 112, 211, 115, 116, 215 (CSB/SJU); JAPN 111, 112, 211 (CSB/SJU). Students are encouraged to take an East Asian language.

Select 3 Cr. from:

ENGL 394; REL 340; ART 106, 201, 203 (CSB/SJU); MCLT 316 (CSB/SJU); PHIL 272 (CSB/SJU). Electives (6) to be selected from any of the above.

## BACHELOR OF ELECTIVE STUDIES

### Minor (27)

Completion of 27 credits with the approval of the coordinator.

## COURSE DESCRIPTIONS

### +363. Faculty-Student Seminar-Japan

An interdisciplinary study of Japan. 3 Cr. F

### +364. Faculty-Student Seminar-China

An interdisciplinary study of China. 3 Cr. S.

## ECONOMICS (ECON)

386 STEWART HALL/255-2227

*Also see College of Social Sciences description and requirements.*

**Chairperson** William A Luksetich. **Faculty:** Banaian, Bodvarsson, Edwards, Gallagher, Gleisner, Hampton, Hughes, Kang, Larkin, Lofgreen, Luksetich, MacDonald, Moghaddam, Partridge, White.

Economics is concerned with society's arrangements for the production and distribution of goods and services in an environment of scarce resources and unlimited human wants. In the United States with its modified, free-enterprise, capitalistic system, the basic problems are solved by the pricing system. The knowledge of economics as a discipline has expanded greatly during the last thirty years, and the means of influencing the level of income, employment, and prices are quite well known. More recent developments in economics have resulted in the more direct application of economics in decision-making in private and public sector organizations. An understanding of economics is necessary for intelligent participation in society.

The major and minor programs in economics offer students a set of required and elective courses designed to provide students a greater understanding of society and a method of thinking useful for a variety of career opportunities. The economics department offers students

majors (1) in an economics concentration through a traditional liberal arts program and (2) in a business economics concentration, which provides training in practical problem solving techniques useful in private and public sector decision making as preparation for careers in private business, banking, and government. Economics minors can emphasize studies in applied economics in addition to general economics. Students seeking background in the applied areas should discuss course selection with the economics department adviser.

## Considerations for Majors and Minors

Some suggested minor programs which complement the economics program are: mathematics, accounting, finance, management, marketing, geography, philosophy, and political science. Those majoring in the above fields and others (local and urban affairs, environmental and technological studies, international relations, etc.) may find an economics minor to be interesting and rewarding.

Students who are preparing for graduate work in economics are encouraged to take ECON 485 and ECON 486. The following courses are recommended as substitutes for a minor: MATH 221, 222, 312; a one-year sequence of a foreign language.

## Economic Education

The Department of Economics is committed to economic education, offering specific courses such as ECON 602, 610, 631, 645, 679 and occasional workshops. For further information, see the description elsewhere in this bulletin of the Center for Economics Education – an autonomous university unit of an interdisciplinary nature charged with furthering economic education.

## Admission to a Major Program in Economics

To be admitted as a major in economics, a student must satisfy the all-university requirements and complete ECON 205 and 206 with a grade of "C" or better in each course. The prospective major should complete ECON 405 and 406 early in her/his major program. The department requires only MATH 112 or 115 but recommends students also take MATH 221 and 222 (students intending to do graduate work in economics should also take MATH 312 and 321.)

## BACHELOR OF ARTS

### Major (45): Economics Concentration

Core (21): ECON 205, 206, 405, 406, 481  
MATH 112 or 115; BCIS 240 or STAT 229

Electives (24): Selected from 400 level ECON courses. ECON 350 or 360 may be substituted for one 400 level course. If approved by the adviser, the following may be substituted for ECON electives: MATH 221, 222\*, 312\*, 321\*. Alternatively, a maximum of two of the following may be substituted for ECON electives: HIST 345; FIRE 371, 373; POL 313\*, 380\*, 463\*; STAT 427\*; ANTH 384.

### Major (48): Business Economics Concentration

Core (21): ECON 205, 206, 405, 406, 481; MATH 112 or 115; BCIS 240 or STAT 229.

Required (18): ECON 417, 470; ACCT 291, 292; FIRE 371, 373.

Electives (9): Selected from 400 level ECON courses. ECON 350 or 360 may be substituted for one 400 level course. A maximum of two of the following non-economics courses may be taken for electives: FIRE 471\*, 473\*, 474\*; MGMT 370\*, 462, 470\*; HIST 345; STAT 427\*; STAT 433\*; ANTH 384.

*The courses with asterisks (\*) have prerequisites. Read the bulletin course descriptions and see your adviser.*



**Economics Minor (18)**

Required (6): 205, 206. Electives (12): Electives from 400-level ECON courses or one of ECON 350 or ECON 360.

**Elementary Education Minor (18)**

Required (9): ECON 201 or 205, and 206, 360.  
Electives in ECON 300-400: (9)

**BACHELOR OF SCIENCE (TEACHING)**

For those students who would like to prepare to teach economics in the public schools, see the social studies program in this bulletin for a description of the social studies major; economics emphasis.

**Social Studies Major (Teaching) — Economics Emphasis (27)**

ECON 205, 206, 360, 471; HIST 345.  
12 credits of 300/400 ECON electives.

**BACHELOR OF ELECTIVE STUDIES****Major (36)**

Completion of 36 credits with the approval of the department.

**Minor (27)**

Completion of any 27 credits in ECON.

**INTERNSHIP PROGRAM**

The internship program of the Department of Economics is designed to give competent, interested students an opportunity to participate in an approved off-campus learning and work situation in an area of interest which relates to the major. The program offers the student a method to relate course work and major requirements to the working world. The program is an extension of the classroom to broaden and deepen the student's understanding of the discipline of economics. See ECON 444 in the course listings. A maximum of three credits may be applied to the elective credits needed in the major program. Any remaining credits apply as general electives toward graduation. Students interested in the internship program should contact the department as early as possible to apply for the program.

**HONORS IN ECONOMICS**

The department requirements for the major must be met. However, the department honors adviser may make suggestions for possible changes in the major program to tailor the program for individual honor students. Work must be continued with a minimum 3.0 GPA on all subsequent courses taken to remain in the program.

In addition to the above requirements the student must: (1) complete an honor thesis project; and (2) take a comprehensive oral examination in the major area. The thesis project should be selected after consultation with the faculty no later than the beginning of the senior year. The student may register for no more than three credit hours of ECON 499, Honors Thesis, which will be counted as elective credit in the major. The comprehensive oral should be scheduled early in the final semester before graduation. The oral may cover discussion of the thesis project and any part of the major work.

To graduate with department honors the student must satisfactorily complete all requirements in effect at the time of admission to the department honors program and have a grade point average of 3.3 or higher for all college work and a GPA of 3.5 or higher for work completed in the major.

**COURSE DESCRIPTIONS****+201. Introduction to Economics**

Basic economic concepts and an overview of current economic issues. Cannot be taken after 205 or 206. 3 Cr. F, S, SUM.

**+205. Principles of Macroeconomics**

Economic decision-making, market processes, measurement and determination of aggregate prices and employment, money and banking

process, fiscal policy, and monetary policy. 3 Cr. F, S, SUM. May be taken before or after 206.

**+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.

**+350. Economics of Developing Countries (MGM)**

Economic development and policy issues in developing countries. 3 Cr. S.

**351. Environmental Economics**

Economic principles relating to use of environmental resources. Market processes and the environment. Pollution, recycling, air and water quality, risk and environmental policy. Not open to economics majors and minors. 3 Cr. F.

**360. Comparative Economic Systems**

Real and ideal economic systems including capitalism, socialism, and communism. 3 Cr. F, S.

**365. Local and Urban Economics**

Economic principles relating to local and urban affairs. Location theory, analysis of urban problems and public policy: poverty, housing, transportation, pollution, public service provision, etc. Not open to economics majors and minors. 3 Cr. F, S.

**+381. Economics of Crime and Justice**

Economic motivation for criminal behavior; costs of crime; optimal allocation of resources for preventing crime; welfare costs of criminal behavior. 3 Cr. F, S, SUM.

**417. Managerial Economics**

Economic analysis of decision-making. Demand, cost, capital, and profit analysis. Prereq.: 205, 206, BCIS 240 or STAT 229. 3 Cr. F, S, SUM.

**444. Internship and Field Work**

Intern in economics or intern in public service with a business, governmental, or civic organization approved in advance by the department. 1-12 Cr. DEMAND.

**481. Senior Research Seminar**

Capstone course requiring empirical research paper using tools of economic analysis. A written and oral presentation. Prereq.: BCIS 240 or STAT 229 or consent of instructor. 3 Cr. May be repeated with different topics. Max 6 Cr. F, S, SUM.

**499. Honors Thesis**

Senior thesis project determined by the student and the department revealing scholarly effort, critical thinking, and the ability to handle bibliographic and research tools. 1-3 Cr. DEMAND.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS****405/505. 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.

**406/506. 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.

**420/520. Economics of Nonprofit Organizations**

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. ALT.

**442/542. 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. ALT.

**451/551. 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.

#### 460/560. Public Finance

The role of government in the economy: public revenues and expenditures, tax structure, inter-governmental fiscal relations, fiscal policy, and public debt management. Prereq.: 205, 206. 3 Cr. F, S.

#### 461/561. Public Economics: State and Local

The economics of state and local government. Public projects, tax and revenue structures, and intergovernmental relations, as in Minnesota. Prereq.: 205, 206, or consent of instructor. 3 Cr. F.

#### 465/565. 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. 3 Cr. F, S.

#### 470/570. 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.

#### 471/571. 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.

#### 472/572. 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.

#### 473/573. Labor Economics

Labor as a factor of production; growth of collective bargaining and labor legislation, and its effects upon society. Prereq.: 205, 206. 3 Cr. S.

#### 474/574. 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.

#### 478/578. History of Economic Thought

Historical development of economic analysis and of the ideas of major economic thinkers. Prereq.: 205, 206. 3 Cr. S.

#### 480/580. Area Economic Studies

Economic problems of selected regions, areas, or countries of the world. Prereq.: Consent of the instructor. 1-3 Cr. May be repeated with different topics. Max. 9 Cr. DEMAND.

#### 483/583. Contemporary Economic Problems

Solutions of problems arising from growth and development of modern institutions under the free enterprise system. Prereq.: Consent of department. 3 Cr. May be repeated with different topics. Max 6 Cr. DEMAND.

#### 485/585. 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.

#### 486/586. 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. S.

## EDUCATIONAL ADMINISTRATION AND LEADERSHIP (EDAD)

A131 EDUCATION BUILDING/255-2160

*Also see College of Education description and requirements.*

**Chairperson** Charles Moore. **Graduate faculty:** Leach, McMullen, McLaughlin, Miles, Moore

The Department of Educational Administration and Leadership develops leaders for Minnesota's schools – teachers, principals, superintendents, central office personnel, and board members 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.

## ELECTRICAL ENGINEERING (EE)

211 ENGINEERING AND COMPUTING CENTER/255-3252

*Also see College of Science and Engineering description and requirements.*

**Chairperson** Yi Zheng. **Faculty:** B. Ellis, George, Heneghan, Lekhakul, Narayana, Rashidi, Zheng.

The Bachelor of Science program in electrical engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. EAC/ABET is the nationally recognized engineering accreditation agency.

The major emphasizes analog and digital electronics, computers, communication, controls and computer aided design. The course work is designed to equip the student with skills to work in research and design positions in the high technology electronics industry. The program also is suitable as preparation for graduate study in electrical engineering, computer engineering and computer science.

Students entering this program should have strong aptitude in physical sciences and mathematics. They will be expected to have had course work in physics, chemistry, and mathematics through trigonometry and advanced algebra in high school. Remedial courses are available for students without this preparation, but credits in remedial courses will not count toward completion of the major.

Admission into the major program will be considered after completion of the 200-level courses in PHYS, MATH, and CHEM, as well as EE 101, 102, 201 and 221 with a grade point average (GPA) of at least 2.5 and with an overall GPA of at least 2.5. These courses can be taken at SCSU or transferred from other institutions. Courses with grades below "C" or courses with pass/fail grades will not be accepted in transfer. GPA computations include all repeated courses. Students will not be allowed into 300 and 400-level classes until admitted into major. Students that have been admitted into the electrical engineering major can be placed on probation or disqualified from the major if they do not continue to meet department standards.

Students majoring in electrical engineering follow the university General Education curriculum with a few changes. The CORE 193 Mathematical Competency course can be satisfied with a required cal-

culus course. The 9 credit general education requirement in science and mathematics is considered satisfied because of the extensive course work in science and mathematics.

Engineering students must take a two course General Education sequence in Fine Arts, Humanities or Social Science. The General Education rule prohibiting more than one course from a department is waived for electrical engineering students to allow a two-course sequence. Students are encouraged to speak with their engineering adviser when selecting General Education classes.

Students who graduate in engineering and take the following courses will have satisfied the university general education requirements. Core: ENGL 191; SPC 192; PHIL 194; and ECON 201. Distribution: Fine Arts and Humanities (9 Cr.), Social Science (6 Cr.) See engineering adviser for possible waiver of 3 credits of Fine Arts and Humanities.

The 12 credit General Education requirement, including the core requirements in mathematics and science is considered satisfied because of the extensive course work in mathematics and science.

Engineering students must take a two course General Education sequence in Fine Arts, Humanities or Social Science. The General Education rule prohibiting more than one course from a department is waived. At least 15 credits in these areas must be concerned primarily with cultural values rather than exercises that enhance a student's performance.

Students are encouraged to speak with their engineering adviser when selecting General Education classes.

Because electrical engineering is a rapidly developing field, students must consult with the departmental major adviser for current program requirements.

## BACHELOR OF SCIENCE Major (102)

Required Classes (90 credits) EE 101, 102, 201, 221, 302, 311, 312, 322, 323, 381, 391, 431, 451, 461, 462; CSCI 260, 261; PHYS 234, 235, 346; CHEM 210; STAT 353; MATH 221, 222, 325; ECON 201.

Non-Electrical Engineering Elective (3 credits). Choose from ENGR 241, 334, 341; MFGE 210.

Electrical Engineering Electives (6 credits). Choose from EE 411, 421, 422, 423, 432, 440, 452, 471, 473, 474, 482.

Senior Elective (3 credits). Choose from PHYS 435, 436, 442, 445; ENGR 425; MATH 427, 452; CSCI 412, 441; EE 411, 421, 422, 423, 432, 440, 444, 452, 471, 473, 474, 482; MFGE 350, 450.

## COURSE DESCRIPTIONS

### †101. Introduction to the Engineering Profession

History of Engineering Achievements, social impact of engineering in the U.S., the engineer's problem solving approaches, use of computer tools such as spread sheets, engineering career fields and work opportunities, professional responsibility and ethics. Prereq.: MATH/STAT 193 or equivalent. 3 Cr. F, S

### †102. Engineering Problem Solving

A programming language appropriate to engineering, such as FORTRAN or C, will be used to model and simulate problems drawn from the engineering disciplines. Prereq.: MATH 112 or equivalent. Coreq.: MATH 113 or equivalent. 3 Cr. F, S.

### 201. Circuit Analysis

Kirchhoff's laws, mesh and nodal analysis, superposition, source transformations, Thevenin's and Norton's theorems, first and second order circuit response, sinusoidal analysis, single and three-phase power systems. Computer aided analysis. Lab. Prereq.: PHYS 235, MATH 222, EE 102. 4 Cr. F, S.

### 221. Digital Logic Design

Number systems, Boolean algebra, logic gates, combinational and sequential circuits, MSI based design, programmable logic and memory devices. Computer aided design. Lab. Prereq.: PHYS 234. 3 Cr. F, S.

### 302. Circuits, Signals and Systems

Frequency response, two-port networks, magnetically coupled circuits, continuous and discrete-time signals, linear time invariant systems, Laplace transform, Fourier analysis and z-transform. Computer simulations. Lab. Prereq.: 201, MATH 325. 4 Cr. F, S.

### 311. Analog Electronics I

Operational amplifiers, diode circuits, transistors, biasing, circuit models, analog amplifiers, differential amplifiers, and frequency response. Computer simulation. Lab. Coreq.: 302. 4 Cr. F, S.

### 312. Analog Electronics II

Feedback and stability, multistage and power amplifiers, filters and oscillators, tuned amplifiers, analog and digital integrated circuits. Computer simulation. Lab with design emphasis. Prereq.: 311. 4 Cr. F, S.

### 322. Advanced Logic Design

Register-based design, state machines, hardwired and microprogrammed control, VHDL simulation, programmable logic and FPGA design, elementary computer architecture. Computer aided design and simulation. Labs and design projects. Prereq.: 221. 3 Cr. F, S.

### 323. Introduction to Microprocessors

Computer organization, microprocessors, assembly and high-level language programming. Parallel and serial interfaces, interrupts, analog-to-digital, digital-to-analog, and single board microprocessor based design. Computer aided design and simulation. Labs with design emphasis. Prereq.: 322, CSCI 260. 4 Cr. F, S.

### 329. Microcomputer Interfacing and Architecture

Introduction to microcomputers, digital logic and microcomputer hardware, interface software design, assembly language programming, parallel and serial I/O, interface design experiments. Project. (not for majors in electrical engineering). Prereq.: PHYS 235. 3 Cr. S.

### 381. Solid State Electronics

Semiconductor properties, energy bands, carriers, drift and diffusion currents. Diodes, bipolar and MOSFET transistors. Device operation. Integrated circuit technologies, basic device cells and simple circuit layouts. Lab and design project. Prereq.: 312, 391, PHYS 346, CHEM 210. 3 Cr. F, S.

### 391. Engineering Electromagnetics

Static and time varying electric and magnetic fields, Maxwell's equations in integral and differential form, uniform plane waves, transmission lines, waveguides and antennas. Computer Simulations. Lab. Prereq.: 302, PHYS 346. 4 Cr. F, S.

### 444. Internship

Practical work experience in an Electrical Engineering position. Credit awarded after presentation of a project paper. Prior approval required. 1-3 Cr. May be repeated for a maximum of 3 credits. DEMAND.

### 461, 462. Senior Design Project

A two semester, capstone, small group design project in Electrical Engineering. Written reports and oral presentations are required each semester. 3 credits per semester. Prereq.: Senior standing in Electrical Engineering, ENGL 191, SPC 192. F, S.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 411/511. 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. Additional project for graduate credit. Prereq.: 302, 312. 3 Cr. DEMAND.

### 421/521. 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 architect-

ture. Design projects and a project paper. Additional project for graduate credit. Prereq.: 323. 3 Cr. F

**422/522. 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. Additional project for graduate credit. Prereq.: 323. 3 Cr. S.

**423/523. 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. Additional project for graduate credit. Prereq.: 323. 3 Cr. DEMAND.

**431/531. Digital and Analog Communications**

Information and coding, spectral analysis, baseband pulse and digital signaling, communication components, modulations, bandpass communication systems. Computer simulations. Lab. Additional project required for graduate credit. Prereq.: 302, 312. 3 Cr. F

**432/532. Advanced Communications**

Selected topics in telecommunication systems and wireless communications. Computer simulation. Lab. Additional project required for graduate credit. Prereq.: 431-531. 3 Cr. S.

**440/540. Seminar**

Lectures, readings, discussions on current topics. May be repeated on different topics for a maximum of 6 credits. Prereq.: Senior or graduate standing in electrical engineering. 1-3 Cr. DEMAND.

**451/551. Control Systems**

Linear time invariant systems, time domain analysis, root locus, frequency domain analysis, compensator design, state-space techniques, introduction to digital control. Lab. Additional project for graduate credit. Prereq.: 302, 312. 3 Cr. S.

**452/552. 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. Additional project for graduate credit. Prereq.: 451-551. 3 Cr. F

**471/571. 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. Additional project required for graduate credit. Prereq.: 302 or instructor permission. 3 Cr. DEMAND.

**473/573. 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. Additional project required for graduate credit. Prereq.: 471. 3 Cr. DEMAND.

**474/574. 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. Additional project required for graduate credit. Prereq.: 471-571. 3 Cr. DEMAND.

**482/582. 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. Wafer probing, failure analysis, and yield improvement. Economic and technological trends. Prereq.: 322, 381. 3 Cr. DEMAND.

## ENGLISH (ENGL)

106 RIVERVIEW BUILDING/255-3061

**Chairperson** Robert Inkster. **Faculty:** Abartis, Anderson, Cogdill, Connaughton, Crow, Dillman, Dorn, Foster, Gordon, Gorrell, Hansen, Head, Hibbard, Inkster, Jackson, Keith, Kilborn, Klepetar, Lundquist, Meissner, Parham, Perry, J. Robinson, R. Robinson, Roney, Ross, Rundquist, Sebberson, Sheppard, Teutsch-Dwyer, Veeder.

The English Department is the home of a rich variety of interrelated disciplines. The department's diversity is reflected in the range of degrees offered: the BA, BS, and BES (bachelor of elective studies) at the baccalaureate level and the MA and MS at the graduate level. Students entering courses in the English Department will find opportunities in literary studies; rhetorical studies; pedagogical studies, including TESL; cultural, cross-cultural, and historical studies of literature and language; theoretical perspectives on literature and language; and practical applications of language in professional, business, and political environments. In each of these diverse areas of study, students will come to a greater understanding of the crucial role of language in constructing meaning, building community, negotiating social, political, and economic goods, and clarifying and articulating ethical and aesthetic values – and, indeed, attempting to glimpse the spiritual meaning of human experience.

The English Department is not only multidisciplinary within its own walls; faculty in the department have strong teaching and other professional collaborations with colleagues in other departments, and students are encouraged to gain cross-disciplinary experience and perspectives as well, through minors, second majors, or other thoughtfully selected course work. English students are also encouraged to experiment with applications of their coursework in venues outside the classroom through internships and volunteer positions.

English students at St. Cloud State University, then, are nurturing essential skills both for living and for making a living. In local, regional, and national surveys, employers continually rank communication skills at the top when asked to list job qualifications. Sensitivity for subtle nuance in language, skill in reading text, people, and relationships, appreciation of ambiguity, and creative and critical habits of thought are the hallmarks of a good English student. These are exactly the vocational skills that will be most valued in the information economy of the next century. Hence, well-prepared English majors and minors can expect to be successful in careers across the entire range of the economy as long as they also have the specific technical qualifications required.

### BACHELOR OF ARTS

Within the BA track, the department offers six different options: a general baccalaureate degree, primarily grounded in literary studies but with strong collateral study in rhetoric and linguistics; a literature emphasis; a literature and writing emphasis; a creative writing emphasis; a linguistics emphasis; and a rhetorical and applied writing emphasis. In addition to the major programs, the department offers a general BA minor as well as minors in creative writing and in rhetorical and applied writing.

#### Notes

1. BA English Majors must elect a minor program of study or must complete one year of a foreign language at the 200 level or above.

2. Credit for 100-level courses and for 201 does not count toward the English major or minor.

### General English Major (40-48 Cr.)

Core (three courses, 9 Cr.): 300; one course from the upper division writing group (331, 332, or 333); 490

*British Literature (three courses, 11-12 Cr.)*

Early (one course, 4 Cr.): 321, 322, or 325

Late (one course, 4 Cr.): 326, 327, 328

One additional British Literature course (May be met through the major author or genre categories below.)

*American Literature (two courses, 8 Cr.)*

Early (one course, 4 Cr.): 310 or 311

Late (one course, 4 Cr.): 312 or 313

*Multicultural, Global, and Gender Perspectives (one course, 3-4 Cr.)*

Note: double counting of a General Education course is possible.

Choose one of the following: 202, 203, 215, 216, 301, 302, 303, 305, 306, 307, 315, 316, 317, 414, 482, 491, 493, 495

*Major Author (one course, 3 Cr.):*

323, 423, 424, or 484

*Theory and Genre (two courses, 6-8 Cr.)*

Genre: 304, 412, 420, 481

Theory: 361, 402, 403, 433, 464, 465, 466, 469

*Writing (one course, 3-4 Cr.) chosen from the following:*

- ▼ A second course from the 331, 332, 333 group
- ▼ A creative writing course (341, 342, 343, 344)
- ▼ or one from 352, 431, or 432

**Literature Major (45-51 Cr.)**

Core (three courses, 9 Cr.): 300; choose one of 331, 332, or 333; 490

**Historical Perspectives**

- ▼ British and European Literature and Culture (five courses, 16-19 Cr.)
- ▼ Choose two from the Ancient, Medieval, Renaissance group: 202, 301, 305, 321, 322, 424
- ▼ Choose one from the Shakespeare group: 323, 423
- ▼ Choose two from the Restoration to Victorian group: 301, 325, 326, 327, 420
- ▼ American Literature and Culture (two courses, 8 Cr.)
- ▼ Choose one from the early group: 310 or 311
- ▼ Choose one from the late group: 312 or 313
- ▼ 20th Century/Contemporary Lit. and Culture (one course, 3-4 Cr.): In addition to the above choose one from the following: 312, 313, 328, 495

**Cultural Perspectives**

- ▼ Multicultural, Global, and Gender Perspectives (one course, 3-4 Cr.; double counting of a General Education course is possible): 203, 215, 216, 302, 303, 306, 307, 315, 316, 317, 414, 482, 491, 493
- ▼ Literary Theory and Criticism (one course, 3 Cr.): 402
- ▼ Linguistics (one course, 3-4 Cr.): 361, 465, or 469

**Literature and Writing Major (39-42 Cr.)**

- ▼ Core (three courses, 9 Cr.): 300; 331 or 332; 490
- ▼ Writing (four courses, 11-12 Cr.): 333, 433, plus two courses from among the 341-344 group or 441-446 group
- ▼ Literature (four courses, 12-15 Cr.): 323 Shakespeare
- ▼ One course in American Literature (310-317, 412, 414, or appropriate 481, 482, or 484 topic)
- ▼ One additional course in British Literature (321-328, 420, 423, 424, or appropriate 481, 482, or 484 topic)
- ▼ One course in Multicultural, Global, and Gender Perspectives (Double counting of a General Education course is possible.): 202, 203, 215, 216, 301, 302, 303, 305, 306, 307, 315, 316, 317, 414, 482, 491, 493, 495
- ▼ Electives in English (two courses, 7-8 Cr.): Choose any two courses above 201

**Creative Writing Major (36-37 Cr.)**

- ▼ Core (three courses, 9 Cr.): 300; choose one of 331, 332, or 333; 490
- ▼ Creative Writing Group (four courses, 12 Cr.): Choose four courses from among the following. At least one must be at the 440 level: 341, 342, 343, 344, 441, 442, 443, 444
- ▼ Electives in Literature (four or five courses, 15-16 Cr.): Choose any literature courses above 201.

**Linguistics Major (35-39 Cr.)**

- ▼ Core (three courses, 9 Cr.): 300; choose one of 331, 332, or 333; 490
- ▼ Linguistics (four courses, 13 Cr.): 361 plus three of the following: 464, 465, 466, 469
- ▼ Literature electives (two courses, 6-8 Cr.): any literature courses above 201
- ▼ Departmental electives (two to three courses, 7-9 Cr.): any courses above 201
- ▼ At least one year of a foreign language is also strongly recommended.

**Rhetorical and Applied Writing Major (36-37 Cr.)**

- ▼ Core (three courses, 9 Cr.): 300; choose one of 331, 332, or 333; 490
- ▼ Applied Writing Courses (two courses, 6 Cr.): Select the other two courses from the 331, 332, 333 upper division writing series not counted in the core
- ▼ Advanced Applications in Theory and Practice (two courses, 7 Cr.): 431 and 433
- ▼ Specialized Studies (one course, 3 Cr.): Choose either 403 or 432.
- ▼ Literature in Historical Contexts (one course 4 Cr.): 310, 311, 312, 313, 321, 322, 325, 326, 327, or 328.
- ▼ Electives (two courses, 7-8 Cr.) Choose any two additional English courses above 201.

An English internship of 7-8 credits also fulfills this elective requirement, or an internship of 3-4 credits counts as one of the courses.

**General English Minor (19-22 Cr.)**

- ▼ Introduction (one course, 3 Cr.): 300
- ▼ British Literature (one course, 3-4 Cr.): Choose one course from among the following: the 320 group (321-328), the 420 group, or 484 if British
- ▼ American Literature (one course, 4 Cr.): Choose one from 310, 311, 312, 313
- ▼ Multicultural, Global, and Gender Perspectives (one course, 3-4 Cr.; double counting of a General Education course is possible): Choose one course from 202, 203, 215, 216, 301, 302, 303, 305, 306, 307, 315, 316, 317, 414, 482, 491, 493, 495
- ▼ Writing (one course, 3 Cr.): Choose one course from 331, 332, or 333
- ▼ Elective (one course, 3-4 Cr.): One additional course at the 300-400 level

**Minor in Creative Writing (18-19 Cr.)**

English majors who elect the creative writing minor may double count 6 English credits.

- ▼ Creative Writing 340 Group (three courses, 9 Cr.): Choose three courses from among 341, 342, 343, or 344.
- ▼ Advanced Creative Writing Group (two courses, 6 Cr.): Choose two courses from among 441, 442, 443, or 444.
- ▼ Literature (one course, 3-4 Cr.): Choose any literature course above 201.





#### Minor in Rhetorical and Applied Writing (15-18 Cr.)

- ▼ Applied Writing Courses (two courses, 6 Cr.): Select two courses from 331, 332, or 333
- ▼ Advanced Applications in Theory and Practice (one course, 3-4 Cr.): 431 or 433
- ▼ Specialized Studies (one course, 3-4 Cr.): Select one course from 352, 403, 432, or 497
- ▼ Electives (one course, 3-4 Cr.): Select one additional course from any of the above categories or one course from the following list of approved cognate courses: COMM 352, COMM 355, SPC 411, or SPC 425

#### BACHELOR OF SCIENCE Major (41-46 Cr.)

The BS major is designed to meet certification requirements of prospective public school teachers of language arts and English.

- ▼ Core (two courses, 6 Cr.): 300; choose one from 331, 332, or 333
- ▼ British Literature (three courses, 11 Cr.): Shakespeare (323) plus one course from early British Literature (321, 322, or 325) and one course from late British Literature (326, 327, or 328)

- ▼ American Literature (two courses, 8 Cr.): Choose one early (310 or 311) and one late (312 or 313)
- ▼ Multicultural, Global, and Gender Perspectives (two courses, 6-8 Cr.; double counting of General Education courses is possible.): Choose one from 202, 203, 215, 216, 301, 302, 303, 305, 306, 307, 315, 316, 317, 414, 482, 491, 493, or 495
- ▼ Linguistics (one course, 4 Cr.): 361
- ▼ Technology (one course, 3 Cr.): 403 or fulfill the technology requirement by providing documentation from other courses in your BS portfolio in consultation with your BS adviser.
- ▼ Methods (two courses, 6 Cr.): 351 and 451

Additional coursework outside the English department: The BS major requires completion of SPC 211 and the Education block.

#### Minor in Secondary Teaching (35 Cr.)

The BS minor in secondary teaching is designed to complement a student's BS major in another discipline, qualifying a graduate to teach secondary level English courses as a second area of certification.

- ▼ Required core (six courses, 19 Cr.): 300, 361, 323, 351, 451
- ▼ British Literature (two courses, 8 Cr.): Choose one course from early British (321, 322, or 325) and one from late British (326, 327, or 328)
- ▼ American Literature (two courses, 8 Cr.): Choose one early (310 or 311) and one late (312 or 313)

Additional coursework outside the English department: The BS minor in secondary teaching requires completion of SPC 211 and the Education block.

#### COURSE DESCRIPTIONS

##### 100. Introduction to Expository Writing

For students wanting a full year of freshman-level writing instruction. Writing processes, self-assessment, and revision strategies. Attention to individual problems. Not a general education course; cannot be taken for university credit after receiving credit for 191. 3 Cr. DEMAND.

##### +184. Introduction to Literature

A study of imaginative literature to improve the understanding and increase enjoyment through reading, writing, and discussion. Emphasis on thematic organization, historical period, cultural representation, and type of literature will be the option of instructor. 3 Cr. F, S.

##### +191. Introduction to Rhetorical and Analytical Writing

Analytical reading, writing, and critical reasoning in various rhetorical situations. Argumentative research project comprising analysis and interpretation of information, texts, and perspectives. 4 Cr. F, S, SUM.

##### +201. Classics of Literature

Introduces non-English majors to in-depth study of rich literary traditions of Great Britain, the United States, and/or other nations or cultures; including at least two genres and historical periods. Does not count toward the English major or minor. 3 Cr. F, S.

##### +202. Myth, Legend, and Sacred Literature

A study of mythology based on Greek, Roman, and other legends in relation to literature. Sacred texts may be included. 3 Cr. F, S.

##### +203. Gender Issues in Literature (MGM)

In works by female and male writers, course explores literary depiction of gender roles, gender and sexual identity/orientation, and/or gender relations in context of social structures and values. 3 Cr. F, S.

##### +215. American Indian Literature (MGM)

Contemporary American Indian literature in poetry, short stories, essays, and novels. Consideration of tradition, history and current realities from an Indian viewpoint as well as negative stereotypes and discrimination that Native people face. 3 Cr. F, S.

##### +216. African American Literature (MGM)

Studies in African American literature from the slave narrative to contemporary writers. Content and focus to vary. 3 Cr. F, S.

### 300. Introduction to English Studies

English as a field of study with emphasis on literary and rhetorical analysis. Strategies by which we interpret and create texts, including poetry, fiction, drama, and essay. This course is a prerequisite for all 400-level courses. 3 Cr. F, S.

### 301. European Literature

Studies in the literatures of continental Europe. May be offered as the literature of a specific country, period, or genre. Repeatable once with different topics. 3 Cr. DEMAND.

### 302. Holocaust Literature

Literature of the Jewish Holocaust and its historical context; examines nonfiction writing such as journals and other first-hand accounts as well as fiction, poetry, and essays. 3 Cr. F

### 303. Literature in a Global Perspective

Literature from around the world, excluding England, the US, and Europe. May be offered as literature of a particular region, style, genre, or theme. Repeatable once with different topics. 3 Cr. DEMAND.

### 304. Literature and Film

Study of literature and film made from that literature. Uses film to define and demonstrate literary techniques and how they are changed and adapted by film. 3 Cr. DEMAND.

### 305. The Bible as Literature

Selections from the Bible that relate to literary traditions of subsequent centuries. Literary forms in the Old and New Testaments (e.g., Psalms and Hebrew poetry). 3 Cr. F

### 306. Literature of the Eastern World

Selections drawn from among the major works, ancient and modern, of China, Japan, India, and the Middle East. 3 Cr. DEMAND.

### 307. African Literature

A survey of contemporary African literature from the following regions of the continent: East Africa, West Africa (French and English-speaking), and South Africa. 3 Cr. DEMAND.

### 310. Early American Literature Through 1830

Studies in American authors and literary and rhetorical traditions from the beginning to 1830. 4 Cr. F

### 311. American Literature: 1830-1900

Studies in American literary and rhetorical traditions and movements from the early nineteenth-century to 1900. 4 Cr. F, S.

### 312. Twentieth Century American Literature Through World War II

Studies in twentieth-century literary movements and authors through World War II. 4 Cr. F, S.

### 313. American Literature Since World War II

Recent American literature of all genres (poetry, drama, short story, novel, essay, and mixed genres) from World War II to the present, represented selectively. 4 Cr. S.

### 315. Advanced Studies in American Indian Literature

In-depth study of some aspect or genre of American Indian literature such as rhetorical or popular prose, poetry, short fiction, the novel, or the autobiography. Prereq.: 215 or consent of instructor. 4 Cr. DEMAND.

### 316. Advanced Studies in African American Literature

Investigates different cultural, historical, or disciplinary traditions in relation to the work of selective African-American authors. Prereq.: 216. 4 Cr. DEMAND.

### 317. Studies in Chicano/a American Literature

Historic and contemporary readings in Mexican American/Chicano/a literature in poetry, short stories, essays and novels. Consideration of tradition, history, and current realities of the Chicano/a viewpoint in literature. 4 Cr. DEMAND.

### 321. British Literature: Medieval

The emergence of literary traditions from Beowulf through the fifteenth-century, with special emphasis on Chaucer. 4 Cr. F

### 322. British Literature: Renaissance

Literature of the sixteenth-century and the seventeenth-century to the Restoration, concentrating on poetry, drama, and selected prose works in their historical and cultural contexts. 4 Cr. F, S.

### 323. Shakespeare I

The histories, comedies, and tragedies. 3 Cr. F

### 325. British Literature of the Restoration and Eighteenth Century

The reinvention of literary forms in the context of artistic, political, and intellectual culture between 1660 and the French Revolution. Swift, Pope, satire, and the origins of literary criticism. 4 Cr. F

### 326. British Literature: Romantics

The literary works, historical and cultural contexts, and criticism of Wollstonecraft, Blake, the Wordsworths, Coleridge, Byron, the Shelleys, Keats, and others. Focus of the course may vary. 4 Cr. F, S.

### 327. British Literature: Victorian

Literary works, historical and cultural context, and criticism of novelists, poets, and essayists of the Victorian age, such as Dickens, G. Eliot, Hardy, Tennyson, and Arnold. 4 Cr. F

### 328. British Literature: Modern and Contemporary

The literary works, historical and cultural contexts, and criticism of novelists, poets, essayists, and playwrights of twentieth-century Great Britain, such as Joyce, Yeats, Eliot, Lessing, and Stoppard. 4 Cr. S.

### 331. Advanced Expository Writing

Exploration of principles and practices of essay and expository writing. May include investigation, interpretation, analysis, or reflection. Focus on disinterested "exposition." Prereq.: 191. 3 Cr. F, S.

### 332. Writing in the Professions

Study and practice in the writing required in business, industry, and government: may include proposals, abstracts, resumes, business and administrative letters and memos, and technical reports. Prereq.: 191. 3 Cr. F, S.

### 333. Advanced Rhetorical Writing

Study of rhetorical concepts, which may include those in Aristotle's Rhetoric, and their application to writing and discourse analysis. Focus on situated discourse of human action and transaction. Prereq.: 191. 3 Cr. F, S.

### 341. Creative Writing: Nonfiction

The writing of nonfiction at the beginning level. Prereq.: 191. 3 Cr. F

### 342. Creative Writing: Fiction

The writing of fiction at the beginning level. Prereq.: 191. 3 Cr. F, S.

### 343. Creative Writing: Poetry

The writing of poetry at the beginning level. Prereq.: 191. 3 Cr. F, S.

### 344. Creative Writing: Drama

The writing of plays at the beginning level. Prereq.: 191. 3 Cr. F

### 351. Introduction to Language Arts Pedagogy

Theory, pedagogy, and practice: rhetorical situations, composition, literature, and language as applied to 5-12 grade teaching. Initial preparation for field experiences/student teaching and licensure. Demonstrate development through portfolio. 3 Cr. F, S.

### 352. Writing Center Practicum

Theory, methods, and materials of tutorial instruction: focus on practice, including fundamentals of writing and learning processes, assessment, individualizing instruction, focusing tutorials. Supervised tutoring. Required for all undergraduates wishing to tutor in the writing center. Prereq.: 191. 4 Cr. S.

### 361. Introduction to Linguistics

Systematic study of language: nature and acquisition of language; linguistic analysis of sound patterns; word and sentence structures, meanings; writing systems; linguistic variation, history and language families. 4 Cr. F, S.

### 433. Theories of Rhetoric and Writing

Investigation of rhetorical theories and concepts from both historical and contemporary perspectives and how they shape practices of literacy and writing. Focus on writing as theoretical construct. Prereq.: 331, 332, or 333, or consent of instructor. 4 Cr. F, S.

### 446. Creative Writing Seminar

Advanced level seminar in writing poetry and fiction. Prereq.: 442 and 443 or consent of instructor. 3 Cr. DEMAND.

### 451. Advanced Language Arts Pedagogy

Theory and pedagogy in rhetoric, composition, literature, and language

for grades 5-12. Preparation for student teaching. Professional development portfolios. May be taken in conjunction with field experience.

Prereq.: 351 and 15 credits from education courses necessary for student teaching, or consent of instructor. May be repeated to 6 Cr. 3 Cr. F, S.

#### 490. Senior Seminar

Capstone experience for English BA majors. Students will assemble a portfolio demonstrating integration of knowledge, skills, and concepts from their major program. Research project and a paper. Prereq.: registered English major; 300; 331, 332, or 333; a minimum of 10 additional credits in English; senior standing. 3 Cr. F, S.

#### 497. Internship

Department approved and directed field experience with an approved agency. Learning contract required. In the Rhetorical and Applied Writing major and minor, all credits may apply. In the other departmental majors and minors, up to half the credits may apply; the remainder apply as general electives. By permission only. Prereq.: 16 credits in ENGL above 201. ENGL 332 recommended. May be repeated to a maximum of 16 cr. 3-16 Cr. F, S, SUM.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 400-500. 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.

#### 402/502. 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.

#### 403/503. 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.

#### 412/512. The American Novel

Study of the development of the American novel. 3 Cr. DEMAND.

#### 414/514. 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, Chicano/a Mexican American, and European American. Prereq.: 215, 216, 315, 316, or 317. May be repeated up to 6 Cr. 3 Cr. DEMAND.

#### 420/520. 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 up to 6 Cr. 3 Cr. DEMAND.

#### 423/523. Shakespeare II

The texts, background and criticism of Shakespeare. 3 Cr. DEMAND.

#### 424/524. Milton

Comus, Paradise Lost, Paradise Regained, Samson Agonistes, Areopagitica, and the minor poetry. 3 Cr. S.

#### 431/531. The Rhetoric of Style

Historical and conceptual study of written style both sentence and extended discourse levels from perspective of rhetorical effectiveness. Extensive practice in developing stylistic competence and strategies with a focus on technical skills. Prereq.: 331, 332, 333, or consent of instructor. 3 Cr. F, S.

#### 432/532. 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 maximum of 6 Cr. 3 Cr. S.

#### 441/541. Advanced Creative Writing: Nonfiction

The writing of nonfiction at the advanced level. Prereq.: 341. 3 Cr. F.

#### 442/542. Advanced Creative Writing: Fiction

The writing of fiction at the advanced level. Prereq.: 342. 3 Cr. F, S.

#### 443/543. Advanced Creative Writing: Poetry

The writing of poetry at the advanced level. Prereq.: 343. 3 Cr. F, S.

#### 444/544. Advanced Creative Writing: Drama

The writing of plays at the advanced level. Prereq.: 344 or consent of instructor. 3 Cr. S.

#### 445/545. 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.

#### 452/552. 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.

#### 453/553. 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 6 Cr. 3 Cr. DEMAND.

#### 459/559. 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 6 Cr. 3 Cr. DEMAND.

#### 461/561. 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.

#### 462/562. 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.: 461 or consent of instructor. 3 Cr. S.

#### 463/563. 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.: 461 or consent of instructor. 3 Cr. DEMAND.

#### 464/564. 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.

#### 465/565. 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.

#### 466/566. 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.

#### 467/567. 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.: 461 or consent of instructor. May be repeated to a maximum of 8 Cr. with permission of instructor and adviser. 3 Cr. DEMAND.

#### 469/569. Topics in Linguistics

One or more topics of current importance in linguistics. Prereq.: 361 or equivalent or consent of instructor. May be repeated to maximum of 6 cr. with permission of instructor and adviser. 3 Cr. DEMAND.

**481/581. Topics in Genre**

Genres such as satire, autobiography, and nonfiction considered in the relevant historical, cultural, and critical contexts. Focus of the course may vary. May be repeated up to 6 Cr. 3 Cr. DEMAND.

**482/582. 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 up to 6 Cr. 3 Cr. DEMAND.

**484/584. 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 up to 6 Cr. 3 Cr. DEMAND.

**491/591. 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, Ahron Appelfeld, and Lawrence Langer. 3 Cr. DEMAND.

**493/593. 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.

**495/595. 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.

**ESL COURSES****101. Listening and Speaking**

For students who use English as a second or foreign language. Focus on social and academic purposes in four areas: one-on-one communication, discussion, classroom presentations, and lecture note taking. Intermediate level. May be repeated. 4 Cr. Alternative grading. S/U, A/F, F, S.

**102. English for Academic Purposes I**

Development of skills in academic reading and writing. Focus on strategies in reading comprehension, paragraph development, and grammar of written English. May be repeated. 4 Cr. Alternative grading. S/U, A/F, F, S.

**150. Cultural Orientation for International Students**

Social and academic life on a United States (US) campus. Focus on cultural adjustment cycle and strategies that help students integrate themselves in US campus life. Required for entering and transfer undergraduate international students who have never studied in the US. 2 Cr. F, S.

**151. Administrative Orientation for International Students**

Administrative procedures and socio-academic realities of SCSU and St. Cloud: immigration law, health services, library services, registration and advising, security, sexual violence and harassment issues, racism and xenophobia. Required of all entering international students. 1 Cr. S/U grading only. F, S.

**201. Listening and Speaking for Academic Purposes**

Focus on speaking and listening comprehension for academic purposes in four areas: office hour interactions, discussions, classroom presentations, and lecture note taking. Advanced level. May be repeated. 4 Cr. Alternative grading. S/U, A/F, F, S.

**202. English for Academic Purposes II**

Development of skills in reading and writing for advanced students. Focus on strategies to improve reading speed and comprehension of academic texts and the development of an essay. May be repeated. 4 Cr. Alternative grading. S/U, A/F, F, S.

**ENVIRONMENTAL & TECHNOLOGICAL STUDIES (ETS)**

216 HEADLEY HALL/255-3235

Also see *College of Science and Engineering description and requirements.*

**Chairperson** Anthony Schwaller. **Faculty:** Akubue, Bergstrom, Cohn, Karian, Nestel, Rose, Scholz, Schwaller.

**Linking the Natural and Human-made World**

The Department of Environmental and Technological Studies defines its mission to be one in which it will prepare students who can link science, technology, society, and the environment through problem-solving, research, assessment, and forecasting. This linking will foster both environmental and technological literacy and will be accomplished through study in the areas of:

**ENVIRONMENT** - such as environmental impacts, pollution control, policy and regulatory issues, mediation/abatement, waste management.

**TECHNOLOGY** - such as sustainable development, technological processes and systems, energy conservation and efficiency, and resource management.

It is the goal of this department to provide an interdisciplinary curriculum that prepares graduates who can:

- ▼ Teach technology and environmental education.
- ▼ Define, assess, and solve environmental problems in society.
- ▼ Define, assess, and solve technological problems in society.
- ▼ Evaluate the relationship between the natural and human-made worlds through a core of common courses.
- ▼ Effectively function using environmental and technological knowledge within economic and political arenas.

**Application for admission to a major program of study within the Department of Environmental & Technological Studies.**

In addition to the university requirements for application for admission to a major program of study, students in the Department of Environmental and Technological Studies must meet and complete each of the following requirements before being admitted to any of its majors:

1. Students must have a cumulative grade point average of at least 2.5.
2. Students must have completed any three courses listed in the department core: 222, 274, 288, 363, 375.
3. Students requesting admission to 300/400-level courses either must be admitted to a major or have instructor permission to enter the course.

**Technology Education majors** graduate with a license to teach technology education in grades 5-12 of Minnesota's public schools. Teacher licensure in other states is easily attained upon completion of this course of study. The curriculum centers on those technologies associated with communications, energy, production, and transportation. This program is nationally accredited by NCATE/ITEA/CTTE.

**Environmental Assessment & Management majors** experience an interdisciplinary curriculum that prepares them for a wide range of environmentally-based occupations. Private industry and various public agencies employ those persons who graduate from this program. The multi-discipline nature of this major provides a considerable degree of flexibility in the selection of specific courses. This aspect of the curriculum allows for a professional specialization within a particular area of personal interest.

**Technology Assessment & Management majors** are prepared for technology-based positions in a variety of goods-producing and service-generating industries. Those industries whose systems of operation cen-

ter on communications, energy, production, or transportation are frequently the employers of these graduates. Flexibility has been built into this curriculum so as to allow for a professional specialization within a particular technology.

## BACHELOR OF SCIENCE

### Technology Education Major (48)

*(Pending MnSCU approval.)*

ETS 192 is a requirement of this major. Students should enroll in ETS 192 as a part of their general education experience. The Professional Education Core of courses offered through the College of Education for all Secondary Education majors is also a requirement of this major. Please see the College of Education statements concerning this aspect of the Technology Education major.

#### Department Core (21)

ETS 222, 274, 288, 363, 373, 375, 456

Required (12)

ETS 115, 253, 353; AVIT 270

Electives (15) Select 15 credits from at least 3 of the following groups:

GROUP A: ETS 117, 211, 225, 411, 423, 425.

GROUP B: ETS 260, 262, 360, 463, 465, 467.

GROUP C: ETS 230, 335, 336, 343, 345, 348, 430, 436, 446, 448.

GROUP D: ETS 285, 311, 312, 438, 482, 484.

GROUP E: ETS 405, 413, 414, 444, 451.

### Environmental Assessment & Management Major (63)

*(Pending MnSCU approval)*

BIOL 101 and MATH 131 are requirements for this major. Students should enroll in BIOL 101 as a part of the general education experience.

#### Department Core (21)

ETS 222, 274, 288, 363, 373, 375, 456

Required (18) ETS 260, 262; CHEM 101; ECON 351; MGMT 301; STAT 229.

Electives (24)

Select at least 6 credits from each of the following groups (24 credit minimum).

GROUP A: ETS 360, 463, 465, 467, 482, 484.

GROUP B: BIOL 312, 326, 328, 330; CHEM 140, 141, 210, 211, 240, 320; ESCI 220, 230, 265, 300, 334, 360; PHYS 208.

GROUP C: ECON 451; GEOG 279, 303, 316, 372, 379, 394, 492;

TSE 482; HIST 349; PSY 373.

### Technology Assessment & Management Major (63)

*(Pending MnSCU approval)*

MATH 131 is a prerequisite for this major.

Department Core (21)

ETS 222, 274, 288, 363, 373, 375, 456

Required (15) ETS 115; AVIT 270; BCIS 240; MGMT 301, 383.

Electives (27) Select 27 credits from at least 3 of the following groups:

GROUP A: ETS 117, 211, 225, 411, 423, 425.

GROUP B: ETS 260, 262, 360, 463, 465, 467.

GROUP C: ETS 230, 335, 336, 343, 345, 348, 430, 436, 446, 448.

GROUP D: ETS 285, 311, 312, 438, 482, 484.

GROUP E: ETS 405, 413, 414, 444.

## BACHELOR OF ARTS and BACHELOR OF SCIENCE

A minor should be chosen on the logic of its being an appropriate complement to the major area of study. The minor should provide a balance with and for the major. The flexibility and practical nature of the following minors offer the potential for that complement of balance. (For teaching and non-teaching majors. Neither of these minors qualifies one for a Minnesota teaching license.)

### Environmental Studies Minor (15)

*(Pending MnSCU approval)*

Required: ETS 260, 262; ECON 351.

Select 6 credits from:

BIOL 301, 302, 348, 349, 350; CHEM 140, 141, 210, 211, 240, ECON 378, 451; ESCI 240, 250, 260, 284, 330; ETS 360, 365, 461, 463, 465, 467, 482, 484; GEOG 279, 379, 303, 372, 382, 394, 492; TSE 482; HIST 349; PHYS 208; PSY 373.

### Technology Studies Minor (15)

Select 9 credits from: ETS 222, 274, 288, 363, 373, 375.

Select 6 credits from any ETS offering.

## BACHELOR OF ELECTIVE STUDIES

*(Pending MnSCU approval)*

The Bachelor of Elective Studies (B.E.S.) degree is available for those who wish to develop their own degree program. A major or a minor in either of Environmental Studies or Technology Studies is available through this department. Each of these programs is meant to address the "elective" aspect of the B.E.S. philosophy.

### Environmental Studies Major (36)

Select 36 credits from those courses listed in the Environmental Assessment & Management Major, described above. Final selection of courses requires department approval.

### Technology Studies Major (36)

Select 36 credits from those courses listed in the Technology Assessment & Management Major, described above. Final selection of courses requires department approval.

### Environmental Studies Minor (15)

Select 15 credits from the FOCUS CONTENT courses listed in the Environmental Assessment & Management Major, described above. Final selection of courses requires department approval.

### Technology Studies Minor (15)

Select 15 credits from those courses listed in the Technology Assessment & Management Major, described above. Final selection of courses requires department approval.

## COURSE DESCRIPTIONS

### 100. Competency Exams

Demonstrated competencies in various curricula of vocational-technical education. Total of five examinations possible. Exams 1-4, 5 Cr. Exam 5, 0-20 Cr. DEMAND.

### 115. Engineering Communication

Graphic solutions to engineering problems. CAD and technical writing. Free-hand sketching, lettering, scaling. Drafting considerations that pertain to the areas of engineering, surveying, and architecture. 3 Cr. F

### 117. Technical Drawing

Use and care of drafting instruments, applications in CAD. Working drawings, dimensioning, tolerancing. Geometric constructions and descriptive geometry; Lab. Prereq.: 115. 3 Cr. S.

### 130. General Woodworking

History, development, and current role of our forest resource. Tools, machines, and processes involved in working with wood. Lab. 3 Cr. S.

### 134. Introduction to Construction Technology

Light and heavy structures, custom and factor construction. Residential construction procedures. Experimentation with construction materials and techniques. 3 Cr. S.

### 154. Vocational Teaching Internship

4 Cr. DEMAND.



**161. Industrial Crafts**

Leather; plastics forming, shaping, casting, and molding; ceramics, hand work, tile, molds; wood turning; metal etching; and engraving. Lab. 3 Cr. S, ALT.

**+186. Introduction to Aviation**

Aerospace in the United States. Basic information related to flight. 3 Cr. F, S.

**+192. Modern Technology and Civilization**

Contemporary technology and its effects on the individual and society. Change created by technology; modern industrial structure, the labor force, leisure, automation, and the resulting social consequences. 3 Cr. F, S.

**+193. Technology and Third World Development (MGM)**

Developing technology in the third world, including its application, adaptation, and impacts on social and economic structures. 3 Cr. F, S.

**211. Industrial Design**

Design principles. Aesthetic and structural as related to various industries. Graphic and three dimensional design, with model development. Lab. 3 Cr. S.

**222. Communication Technology**

Industrial communications systems to originate, develop, send, receive, store, retrieve, and interpret ideas and knowledge. 3 Cr. F, S.

**225. Photomechanical Processes**

Photo-mechanical processes related to offset lithography. Design and layout, copy preparation, desktop publishing, line and continuous tone photography, stripping, platemaking, and reproduction. Prereq.: 222 or consent of instructor. Lab. 3 Cr. F.

**230. Wood Technology**

Maintaining and using woodworking tools and machines; developing wood products; producing technical information sheets. Prereq.: 130 or equivalent. Lab. 3 Cr. S.

**253. Technology Education Curriculum**

Technology education, history, and philosophy, selection of content, curriculum development, developing classroom activities, and professionalism in technology education. 3 Cr. F.

**+260. Introduction to Environmental Studies**

Past, present and future human environments. Environmental concerns. Prereq.: BIOL 101 or equivalent. 3 Cr. F, S.

**262. Environmental Instrumentation**

Study and use of common laboratory instruments used to monitor air, water and soil quality. Prereq.: 260. 3 Cr. F, S.

**274. Production Technology**

Principles of production as they relate to construction and manufacturing. OSHA regulations and UBC codes. 3 Cr. F.

**+285. Energy and Society**

Energy resources, their alternatives and transportation systems as they affect society. 3 Cr. S.

**288. Transportation/Energy Technology**

Moving people and products within a society; transportation/energy processes including energy storage and power/energy conversion. 3 Cr. F.

**311. Computer-Aided Drafting**

Hardware and software that comprise a CAD system and operations necessary to create, modify, store, and output two- and three-dimensional drawings. Prereq.: 115 or demonstrated competency. Lab. 3 Cr. F.

**312. Computer-Aided Design**

Three-dimensional graphic design representations, engineering drawings, cutter path data for numerically controlled machine tools. Prereq.: 117, 311 or consent of instructor. Lab. 3 Cr. S.

**335. Electrical and Mechanical Systems in Residential Construction**

Electrical, plumbing, and climate control systems in residential construction. Lab. 3 Cr. F, ALT.

**336. Residential Construction**

Major components of residential construction. Lab. 3 Cr. S.

**343. Computer Integrated Manufacturing**

Computer aided numeric control, process planning and control, and

group process technology. Lab. Prereq.: 274. 3 Cr. S.

**345. Manufacturing Processes**

Production processes in metals-based industries including foundry, welding, and machining practices. 3 Cr. F, ALT.

**348. Synthetics Technology**

Identification, classification, properties, and uses of synthetic materials. Design, theory, and experimental techniques. Lab. 3 Cr. S, ALT.

**353. Instructional Strategies**

Instructional strategies in technology education, learning theories, approaches and delivery systems, evaluation and assessment, and planning laboratory facilities. Prereq.: 253. 3 Cr. S.

**360. Environmental Literature**

Analysis, synthesis, and evaluation of perspectives on environmental issues. Prereq.: 260 or consent of instructor. 3 Cr. S.

**363. Resource Management**

Energy and material resource management including waste generation, energy efficiency/conservation, and resource recovery. 3 Cr. F.

**373. Environmental and Technology Assessment**

Assessment of technological development and environmental quality in society. 3 Cr. S.

**375. Society and the Environment**

Inter-actions between humans, technology, and ecological systems. Human perceptions of the environment, environmental impacts of technology; and political, technological, and social responses to environmental issues. 3 Cr. F.

**411. Architectural Drawing**

Drawing problems in architecture, home programming, design, building codes, and regulations; production and reproduction of a set of home working drawings. Site and landscape planning. Lab. 3 Cr. S, ALT.

**414. Practicum (Topical)**

Practical experiences and research in a technological system in communication, construction, manufacturing or transportation/energy. Lab. 1-3 Cr. DEMAND. May be repeated to maximum of 6 credits.

**425. Color Separation**

Color theory, direct and indirect color separation, continuous tone intermediates, filtering masking, screening positives, screened negatives, color stripping, and four color reproduction. Prereq.: 225 or consent of instructor. Lab. 3 Cr. F, ALT.

**430. Mass Production**

Care and application of production machines. Production principles. Lab. 3 Cr. S, ALT.

**438. Animation and Simulation**

Computer based 3D visualization, modeling, and animation. Production of realistic industrial designs, mechanical simulations, product assemblies, and architectural walk-throughs. Prereq.: CSCI 169 or equivalent. Lab. 3 Cr. F, ALT.

**446. Manufacturing Concepts**

Management, production, and personnel practices. Contemporary industrial technology. Lab. 3 Cr. F, ALT.

**448. Synthetic Composite Technology**

Materials, tools and processes associated with synthetic composite technology. Product design and development. Lab. 4 Cr. S, ALT.

**454. Supervised Teaching**

Supervised teaching experience for those presently employed in a vocational school. A regular student teaching experience in a vocational school for others. By permission. 16 Cr. DEMAND.

**456. Senior Project**

A capstone course to review curriculum, technical aspects, relationships between courses, assessment of student learning, and development of a senior project. 3 Cr. F, S.

**460. Selected Topics In Environmental Studies**

Topics such as: Tropical rain forests, pesticides, water pollution, estuarine environments, environmental ethics, and global environmental problems will be studied. May be repeated. Prereq.: 260. 1-3 Cr. DEMAND.

#### 465. Wetland Environments

Wetland types, definitions, and formation. Wetlands identification and delineation. Human-wetland interactions. Prereq.: 260 and 262 or consent of instructor. 3 Cr. F.

#### 467. Soils and Environmental Quality

Soil-forming processes, soil geography, classification biology, identification, and testing. Soil erosion, conservation, management, contamination and sedimentation. Prereq.: 260 and 262 or consent of instructor. 3 Cr. S, ALT.

#### 484. Solar Energy: Systems and Design

Residential solar heating; passive and active designs. 4 Cr. S, ALT.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 405/505. Foundational Technical Developments

The universal characteristics of technology, its foundational technical developments, and their effects upon culture. Tools, materials, processes, systems. 3 Cr. F, ALT.

#### 413/513. Workshop: CAD on the Macintosh

Computer-aided drawing using AutoCad and VersaCad on Macintosh and MS DOS computers. 1-3 Cr. SUM.

#### 423/523. 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.

#### 436/536. Construction Scheduling and Estimating

Preliminary, detail, and quantity estimating and scheduling techniques for residential and small commercial projects. 3 Cr. F, ALT.

#### 444/544. Internship

Offered only to students who hold internships with industrial organizations for which advanced approval has been given by the department. 1-9 Cr. May be repeated; however, a maximum of 9 Cr. will count toward an undergraduate degree and 4 Cr. toward a graduate degree. DEMAND.

#### 451/551. Workshop: Technology Education Activities

Developing activities for the secondary education technology educator. 1-3 Cr. F, ALT.

#### 458/558. 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. SUM.

#### 459/559. 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. SUM.

#### 482/582. Renewable/Nondepletable Energy

Evaluation of energy resources including environmental, social, political, and economic considerations; synthesis and evaluation of renewable resource potential/rationale. 3 Cr. S, ALT.

## FINANCE, INSURANCE AND REAL ESTATE (FIRE)

110 BUSINESS BUILDING/255-4986

Also see College of Business descriptions and requirements.

**Chairperson** Steven P. Mooney. **Faculty:** Bohnen, Christopherson, Gangopadhyay, Mitteness, S. Mooney, Sarwar, Sneide, Yook.

The finance major prepares the student for positions as financial managers and investment analysts in private business or non-profit organizations and within governmental units. Those completing the program are qualified for employment in the securities industry, financial intermediaries, financial management or investment organizations, international finance, and in government regulatory, administrative or service agencies.

The risk management and insurance major offers a full array of courses and provides an opportunity for specialization areas. Career opportunities are available in areas of risk management, risk management consulting, property and liability insurance sales, life and health insurance sales, insurance company operations and management, actuarial science, social insurance, insurance regulation, and insurance support services.

The real estate majors are given a choice among numerous career specializations. Career opportunities are available in brokerage, sales, appraisal, financing, investments, contracting, planning and development, property management, and construction management. Under the direction of the Minnesota Chair in Real Estate, this is the most diversified real estate program in the upper Midwest.

### MINNESOTA CHAIR IN REAL ESTATE

**Steven P. Mooney**

The Minnesota Chair in Real Estate, established in 1978, was the first endowed professorship in the State University System. The chair is funded by individuals and organizations in the real estate industry for the purpose of providing an academic major in real estate and continuing education for real estate practitioners. Other programs of the Minnesota Chair in Real Estate include the Minnesota Real Estate Research Center.

### BACHELOR OF SCIENCE

**Major (70-73)\***

A 2.65 G.P.A. is required to apply for a FIRE major. A major in finance, insurance or real estate includes the business core (40 Cr.) plus one of the following programs:

#### Insurance (30)

Required (18): FIRE 375, 378, 475, 476, 479, 480. Select two courses (6) from the following: FIRE 373, 471, 472, 474, 487. Select one of the following (3): MGMT 352, 365, 467, MKGB 415. FIRE 444 Internship OR a Non-College of Business elective with adviser approval (3).

#### Real Estate (33)

Required (24): FIRE 375, 378, 386, 483, 484; MKGB 434; ECON 465, URB 200. Select courses from one of the following areas (9 cr.): brokerage management, sales and marketing, building and construction, finance and investments, planning and development, real estate appraisal, property management, and insurance. Electives selected to fulfill requirements of the major require adviser approval.

#### Finance (33)

Required (21): FIRE 373, 375, 378, 471, 472; ECON 471; ACCT 371. Select at least four electives, one from Group I, one from Group II and two from Group III (12).

Group I: FIRE 474, 481, 487

Group II: FIRE 386, 473, 474, 475, 476, 479, 480, 481, 483, 484, 487, 490, 498

Group III: FIRE 386, 473, 474, 475, 476, 479, 444, 480, 481, 483, 484, 487, 490, 498; ACCT 482, 483; MKGB 415, 434, 436; MGMT 462, 365, 479, 452, 470; MATH 211, 212, 222, 261, 361; PHIL 481; SPC 220, 325, 326, 425; ECON 377, 405, 406, 460, 470, 472, 485, 486; BCIS 150, 341, 350.

**Finance, insurance or real estate minor for nonbusiness majors and/or Bachelor of Elective Studies students (21)**

ACCT 291, 292; MKGB 235 and 12 credits from 300-400 level department courses elected from area of finance, insurance or real estate (approved in advance by minor adviser).

**Notes**

*Non-business majors who choose to minor in business may take no more than 30 credits of their total university course work in the College of Business.*

*1. Selected courses are an integral part of the international business program described in this bulletin.*

*2. Only students admitted to a business major or minor program and who have completed 60 semester credits (junior standing) may enroll in 300 and 400 level courses. FIRE Department permission required for all other students.*

*3. Business students should consult their adviser before enrolling in 201 due to the 50% rule.*

**COURSE DESCRIPTIONS**

**+201. Introduction to Money Management**

Managing personal wealth. Making the most of available financial resources through informed decisions about saving, investing, borrowing, and use of insurance to manage risks. 3 Cr. DEMAND.

**371. Managerial Finance**

Basic concepts in finance: Time value of money, financial ratio analysis, and security valuation. Corporate financial decisions: capital budgeting, choice of capital structure, and working capital management. 3 Cr. F, S, SUM.

**373. Investment Principles**

Types of investment securities; security market operations; investment policies; security analysis and valuation principles: risk, return, and portfolio analysis; personal investment principles. 3 Cr. F, S, SUM.

**375. Risk Management and Insurance**

Management of risk in a business setting; control of property, liability, and personnel risks; risk financing including self insurance, group retention and insurance, decision-making; introduction to the insurance industry. 3 Cr. F, S, SUM.

**378. Real Estate Principles**

Introductory real estate: contracts, finance, investment, appraisal, owning vs. renting, taxation and closings. Approved for pre-licence education under Ch. 82, MN Real Estate License Law. 3 Cr. F, S, SUM.

**386. Real Estate Property Management**

Techniques and scope for property management. Owner relations, record keeping, marketing and leasing, tenant administration, maintenance, and staffing, management of residential, commercial and office properties. Prereq.: 378 or permission of department. 3 Cr. F.

**444. Internship in Business**

Participation in a full-time paid position with a cooperating business, governmental, or civic organization whose program has been approved in advance by the department in which the student has an approved major. Credits are provided upon completion of all requirements of which 3 credits may be applied to the required electives under the major program and the remaining credits apply to university electives for graduation. Permission of department. 3-15 Cr. F, S, SUM.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**471/571. 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.

**472/572. Financial Institutions**

Role in the economy; current issues/controversies in banking and intermediation; international aspects of financial intermediation. 3 Cr. F, S, SUM.

**473/573. 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.

**474/574. 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.

**475/575. 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.

**476/576. Property and Liability Insurance**

Property and liability risks; contracts, insurance law and regulation; company management and operations. 3 Cr. S.

**479/579. 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, policy. 3 Cr. F.

**480/580. Employee Benefits and Group Insurance**

Employee benefit plan design, group insurance contract provisions, group life and health coverage, pension plans, costs containment, and taxation. 3 Cr. S.

**481/581. Advanced Corporate Finance**

Issues related to financing the corporation including capital structure, valuation of various forms of debt financing, and managing risk with financial instruments. Prereq.: 371, 471. 3 Cr. F.

**483/583. 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.

**484/584. 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.

**487/587. 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.

**490/590. Topics in Finance, Insurance and Real Estate**

Cases and/or student research, class involvement. Options and futures, mergers and acquisitions, health care finance, 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 maximum of 6 credits. DEMAND.

**498/598. 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; MKGB 320; ACCT 292; BCIS 240, 241; MGMT 301; and permission of department. 3 Cr. F, S.

## FOREIGN LANGUAGES AND LITERATURE (FORL)

228 BROWN HALL/255-4141.

<http://fl.stcloudstate.msus.edu/hi/index.html>; Fax: 255-2002

*A program of the College of Fine Arts and Humanities.*

**Chairperson** William Langen. **Faculty:** Boyer, E. Carter, Commers, Costaglioli, Escalas, Grottel, S. Jarvis, Langen, Levilain, O'Neill, Román-Morales, Saltz, M. Savage, R. Specht-Jarvis, VanBuren.

### Mission Statement

We live in a multilingual world. There are opportunities in business and professional life for educated people with a command of one or more foreign languages. The study of another language enhances human and multicultural awareness.

### Placement of Students within the FORL Sequence:

Entering freshmen who begin study of a language below the 200-level should not expect to complete a major program in four (4) years.

FORL courses at the 100- and 200-level are designed for non-native speakers of the language.

100-level courses are intended for students who are beginning their study of a language, and who have no (or minimal) prior formal experience with that language; heritage speakers or individuals who have previous study of a language will receive credits for the initial course in the 100-level series (101) ONLY by permission of the FORL Department. Those with prior study, heritage speakers, and those in doubt should consult a FORL Department adviser prior to registration. Native speakers of a language may take 100- or 200-level courses in the same language ONLY by permission of the FORL Department faculty and may NOT earn credits by examination for any course below 301.

The general guidelines for students with previous formal study of a language are:

- ▼ Students should enroll in 101 if: only junior high language study or one year at the senior high or 3 or more years since most recent completion of a class in that language.
- ▼ Students should enroll in 102 if: 2 years of senior high language study and less than 3 years since the last enrollment in that language.
- ▼ Students should enroll in 102 or 201 if: 3 years of senior high language study.
- ▼ Students should enroll in 201, 202 or 301 if: 4 or more years of senior high language study.

Students who have doubts about their placement should consult with FORL faculty prior to registration.

### Retro-credits guidelines and policy:

Non-native speakers of a language who begin their college-level study of that language at SCSU in a course numbered above 101 and earn a grade of "B" or higher in that course, may be granted retroactive credits for one or more prior courses upon payment of a minimal "credit-by-examination" fee if the request is made not later than the semester immediately following that course. This option is not available to students with prior college-level study (Post-secondary Option, college in the schools, transfers, etc.) of the language.

Students entering 102 and earning a grade of "B" or higher could request 3 credits; those entering at 201 could request 3 or 6 credits; those entering in 202 could request 3 or 6 credits; students entering in 301 could request 3 or 6 credits.

Students with an AP score of 3, 4 or 5 who begin their college-level study of that language at 301, and who earn at least a "B," should consult FORL faculty about automatic retro-credits.

### Major/minor programs:

All major and minor credits must be earned at the 200-level or above.

Some courses must be taken sequentially (see course descriptions).

Prerequisites for registration for courses numbered above 301 and for admission to major/minor include demonstration of oral language proficiency at a level corresponding to Intermediate-Mid or higher, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines.

All students must demonstrate oral and written proficiency at the level determined by the department before being admitted to a major/minor program. This requirement must be completed prior to registration for 301. Transfer students with 8 or more credits at the 200-level may register for 301, with departmental permission, during their first semester in residence at SCSU; registration for upper-division courses in subsequent terms is contingent on satisfactory completion of proficiency exam (220). Students transferring to SCSU above 301-level must see FORL major adviser for information on how to fulfill this requirement.

Students must be admitted to a language major/minor in order to register in 400-level classes. In addition, all courses at the 300-level must be completed prior to registration at the 400-level. BS students may register for 455 concurrently with 302. (Bachelor of Science programs are for those who are preparing to teach a foreign language in elementary or secondary schools). Any courses from another department, designated by the language section as applicable to a major/minor in that language, must have prior approval of the adviser and must be listed on the major/minor application. Students who have a language major from another institution and who wish to add teaching licensure through the FORL department at SCSU should consult with foreign languages teaching methodology faculty about this requirement.

Students pursuing a BS degree must complete ENGL 361 prior to enrolling in 451 and 452.

FORL 453 and 455 must be completed prior (but not more than one year prior) to student teaching. Before being declared eligible for student teaching, students must demonstrate the required level of oral proficiency in the language in which they are seeking licensure.

Students entering with a foreign language major from another institution and who wish to add a teaching licensure through the FORL Department at SCSU must complete at least 3 classes in that language at SCSU, including 451 and 452, as well as FORL 453 and/or 455 and the appropriate BS capstone course(s). ENGL 361 or equivalent is a prerequisite for these courses. Other courses should be selected in consultation with foreign languages teaching methodology faculty. Entering students must meet the same language proficiency standards as required for admission to an undergraduate major/minor program.

**Special note:** Proposed changes in MN licensure requirements may necessitate an increase in the number of courses/credits required for the BS major and/or elimination of the BS minor program.

**Special note:** Students must maintain a 2.5 GPA overall and a 2.5 GPA in major courses (200-level and above) in their language(s) in order to graduate with a major/minor from this department.

### BACHELOR OF ARTS

#### French Major: (36)

201, 202 (where necessary); 220, 230, 301, 302, 331, 457; 6 credits from 411-421 (possible combinations: 411+421, or 411 twice or 421 twice); 3 credits from 431-432; 3 credits from 451-452. Students must take 3 credits outside the department in courses with a clear French focus (e.g., History, Philosophy, Art History), with prior permission of major adviser.

**German Major: (36)**

201, 202 (where necessary) 220, either 230 or 233; 301, 302; 303, 457  
Electives: 14 Cr. at 300- or 400-level. Students may take 3 credits outside the Department in courses with a clear German focus (e.g. History, Philosophy, Art History), with prior permission of major adviser

**Spanish Major: (36)**

201, 202, 230, (where necessary) 220, 301, 302, 331, 341, 457  
3 credits from 430, 432, 433; 3 credits from 440, 442, 443  
Electives: 6 credits at 300-400 level, among which 3 credits may come from another department, with prior approval of FORL major adviser.

**Foreign Languages Minor: (21)**

6 Cr. at the 200-level in each of three foreign languages (French, German, Japanese, Spanish, or Russian), plus one more course in one of the three languages.

**French Minor: (22)**

201, 202 (where necessary), 220, 230, 301, 302, 331  
3 credits to choose from any 400-level courses.

**German Minor: (22)**

201, 202 (where necessary), 220, either 230 or 233; 301, 302, 303.  
Elective: any course in German at 300- or 400-level.

**Russian Minor: (17-23)**

0-6 Cr. 200-level courses (where necessary), 301, 302, 320, 323, 452, 457.

**Spanish Minor: (22)**

201, 202, 230 (where necessary), 220, 301, 302, 331, 341.

**BACHELOR OF SCIENCE**

Requirements for teaching licensure, in addition to coursework, include demonstration of oral and written proficiency in the language(s) to be taught. Information on meeting this requirement is available in the Department of Foreign Languages. Requirements for Minnesota licensure must be met. Candidates must consult with foreign languages teaching methodology faculty. State of Minnesota requires proficiency at a level that may not be attainable with a minor.

**Special Note:** Proposed changes in MN licensure requirements may necessitate an increase in the number of courses/credits required for the BS major and/or elimination or the BS minor program.

**French Major: (39)**

201, 202 (where necessary); 220, 230, 301, 302, 331; 451, 452, 454 and/or 456; 3 credits from 411-421; 3 credits from 431-432; FORL 453 and/or 455; ENGL 361.

**German Major (39)**

201, 202 (where necessary), 220, either 230 or 233, 301, 302, 303, 451, 452. FORL 453 or 455; FORL 454 and/or 456.  
Electives: 6 Cr. at 300- or 400-level; ENGL 361

**Spanish Major: (42)**

201, 202, 230 (where necessary), 220, 301, 302, 331, 341, 451, 452, 454 and/or 456; 3 credits from 430 or 432 or 433; 3 credits from 440 or 442 or 443; FORL 453 and/or 455; ENGL 361.

Students who already are pursuing a teaching major in one of the three languages may add a B.S. minor, with FORL departmental permission. For these students, ENGL 361, FORL 453, and/or 455 will be double-counted in both major and minor.

Students with teaching majors in fields other than a foreign language may complete a B.A. minor program in a second language, if they choose, but they will not be eligible to add that language to their teaching license. The 30/33-credit B.S. minor remains an option for

those students majoring in other departments who want to add a foreign language minor to their teaching license and who understand that they will need more than 128 semester credits to graduate. Students with a B.A. or B.S. minor may not be able to pass required proficiency-based licensure exams. Students interested in this option should consult foreign language education faculty.

**French Minor: (33)**

201, 202 (where necessary), 220, 230, 301, 302, 331, 451 or 452, 454 and/or 456; FORL 453 and/or 455; ENGL 361; Elective: one (3 Cr.) at 300-400 level.

**German Minor: (33)**

201, 202 (where necessary); 220, either 230 or 233, 301, 302, 303, 451 or 452; FORL 453 and/or FORL 455; 454 and/or 456. ENGL 361. Elective: one at 300- 400-level.

**Spanish Minor: (33)**

201, 202, 230 (where necessary), 220, 301, 302, 331, 341, 451 or 452, 454 and/or 456; FORL 453 and/or 455; ENGL 361.

**BACHELOR OF ELECTIVE STUDIES**

**French, German or Spanish Major (36)**

Arranged in consultation with and approved by adviser.

**French, German or Spanish Minor (24)**

Arranged in consultation with and approved by adviser.

**Certificate Program for International Awareness (CPIA)**

The German and French sections of the Foreign Languages Department offer a certificate program for international awareness (CPIA) to augment study of both cultures and languages. A "Passport to Germany" and a "Passport to France" can currently be obtained by students pursuing the CPIA initiative. The certificate programs are designed around beginning/intermediate language and culture courses, a Simulated Oral Proficiency Test, and capstone class in Media Literacy, emphasizing the passport designation.

**Course requirements:**

GER or FREN 101, 102, 201, 202 depending on previous training (0-14 cr.). Students with more than three years of high school language in French or German start with 201 and 202 (6 cr.) or any 6 credits on the 300 or 400 levels, if more prior language training exists. Six language credits at or above the 200 level taken at SCSU as well as the Exploratory 110 (3 cr.), Media literacy 230 (2-4 cr.), and 4-6 credits in any course with an international focus in Fine Arts and Humanities (eligible courses are determined by section coordinators and may vary).

**COURSE DESCRIPTIONS (FORL)**

**+101, 102. Elementary Foreign Language I, II.**

Elementary grammar, vocabulary and conversation in a foreign language not normally offered. These courses promote an increased understanding and appreciation of the culture of the country where the language is spoken. 4 Cr. F.S.

**+201, 202. Intermediate Foreign Languages I, II.**

Review and expansion of basic vocabulary and grammatical structures, conversational practice, listening comprehension, written expression and reading. Students will prepare for oral and written proficiency exams during these courses. Must be taken in sequence. Prereq.: for 201: 102 or equiv; Prereq.: for 202: 201 or equiv. 3 Cr. ea. 201-F; 202-S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**453/553. 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.: ENGL 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

#### 455/555. 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.: for 455; APSY 262 (or equivalent Tchr. Dev. semester course) or equivalent, admission to B.S. foreign language major or minor; for 555: foreign language or elementary school teaching license or permission. 3 Cr. S.

### COURSE DESCRIPTIONS—FRENCH

#### +101, 102. Elementary French I, II

Basic vocabulary and grammatical structures to prepare students for developing proficiency in the language. Listening, speaking, reading, writing and cultural skills building emphasized. An increased understanding and appreciation of the cultures of the various French-speaking countries. Must be taken in sequence. Intended for students with little or no previous study of French. 4 Cr. ea. 101-F, S; 102-F, S. (Recommended companion course for students considering a major or minor in French: FREN 110).

#### +110. Introduction to French Culture

Recommended companion course to 101 and 102. Taught mainly in English. Explores the history of language and diverse cultural, historical and socio-political features of the French and Franco-phone cultures. Recommended for students who want more contact with the modern culture and language. Can be taken concurrently with 101 or 102. 3 Cr. F or S.

#### +201, 202. Intermediate French I, II

Review and expansion of basic vocabulary and grammatical structures, conversational practice, listening comprehension, written expression and reading. Students will prepare for oral and written proficiency exams during these courses. Must be taken in sequence. Prereq.: for 201: 102 or equivalent. Prereq.: 202: 201 or equivalent. 3 Cr. each. 201-F; 202-S.

#### 220. Proficiency Assessment

Practice in Simulated Oral Proficiency Interviews (SOPI) and written proficiency assessments. Required for admission to the major or minor and exit from CPIA. Must be taken before or concurrently with 301. Prereq.: 201, 202. 2 Cr. S.

#### 230. Media Literacy and Culture

Development of reading, writing and listening skills and strategies through the study of French culture in print, film, audio and electronic media. May be taken concurrently with either 201, 202 or 220, but prior to 301. 2 Cr. F, S.

*Note: Satisfactory performance on the proficiency interview is prerequisite to all courses above 301.*

#### 301. Conversation and Composition I

Oral and written practice based on themes drawn from the contemporary culture of French-speaking countries; review and practice of grammar. Directed toward increasing fluency and correct expression. Must be taken before or concurrently with 331 and before any 400-level course. Prereq.: 202 or equivalent and 220. 3 Cr. F

#### 302. Conversation and Composition II

Oral and written practice based on themes drawn from the contemporary culture of French-speaking countries; review and practice of grammar. Directed toward correct expression of a more sophisticated nature. Must be taken before or concurrently with 331 and before any 400-level course. Prereq.: 220, 301 or permission of instructor. 3 Cr. S.

#### 331. Poetry

How to read, decipher and analyze a poem. Historical evolution, stylistic and philosophical implications of French poetry, through a selection of major texts. May be taken concurrently with French 301 or 302. 3 Cr. F

*Note: Must be admitted to French major/minor prior to registration to any 400-level course.*

#### 411. Advanced Studies in French Literature

Stylistic, philosophical and cultural analysis of a particular work, author or period. May be repeated for a total of 6 credits. Prereq.: 302, 331. 3 Cr. S.

#### 431. Prose

Reading and analysis of prose fiction. Evolution, stylistic and philosophical implications of French prose, through a selection of major texts. Prereq.: 302, 331. 3 Cr. ALT, F

#### 432. Drama

How to read, decipher and analyze drama. Historical evolution, stylistic and philosophical implications of French drama, through a selection of major texts. Prereq.: 302, 331. 3 Cr. ALT, F

#### 451. Phonetics

Introductory contrastive analysis of French and English phonological features. Identification of the letter-to-sound correspondence in French. Oral practice. Prereq.: ENGL 361 (BS major only), FREN 302 or permission. 3 Cr. F

#### 452. Advanced Grammar

Contrastive analysis of French grammatical features. Directed toward a clearer understanding and appreciation of the subtleties of written and spoken French. Written and oral practice. Primarily for students of French as a second language and prospective teachers. Required for licensure. Prereq.: ENGL 361 (BS major only) or permission of instructor. 3 Cr. S.

*Note: Both 451 and 452 are highly recommended for BS degree-seeking candidates.*

#### 457. Senior Project (BA)

Research-based thesis on selected topics in French literature or culture under the guidance of instructor. Capstone course for French major in transition to graduate studies or career. Taken during last semester of undergraduate studies. Prereq.: Completion of all other major/minor requirements. 2 Cr. F, S.

#### 459. Orientation to Study Abroad

On-campus orientation during semester prior to study abroad experience. Prereq.: Acceptance into SCSU study abroad program. 1 Cr. F

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 421/521. 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 for a total of 6 credits. Prereq.: 302, 331. 3 Cr. S.

#### 454/554. 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.

#### 456/556. 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.: FORL 455/555, demonstrated oral proficiency at or near level required for licensure. 2 Cr. F, S, DEMAND.

#### 460/560. 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.

#### 461/561. 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. ARR.

### COURSE DESCRIPTIONS – GERMAN

#### +101, 102. Elementary German I, II

Basic vocabulary and structures to prepare students for developing proficiency in the language. Listening, speaking, reading, writing, and cultural skills building emphasized. Increase understanding and appreciation of culture of countries where language is spoken. Must be taken in sequence. Intended for students with little or no previous study of German. A recommended companion course for students considering a major or minor in German is GER 110. 4 Cr. 101: F, S; 102: F, S.

#### +110. German Explorer

Strategies of foreign language acquisition emphasizing the dialects, cultures and traditions of contemporary Germany, Austria, and Switzerland. May be taken concurrently with 101 or 102. Topics vary. Augments 101 and 102. 2 Cr. F, S.

#### +201, 202. Intermediate German I, II

Review and expansion of basic vocabulary and grammatical structures; conversational practice; listening comprehension; written expression; and reading. Preparation for oral and written proficiency exams. Must be taken in sequence. Prereq.: for 201: 102 or 2 years high school German; prereq. for 202: 201 or 3-4 years of high school German. 3 Cr. per semester. 201: F; 202: S.

#### 220. Proficiency Assessment

Oral and written proficiencies. Practice in Simulated Oral Proficiency Interviews (SOPI) and written proficiency assessments. Recommended for students who need assessment of their language skills. Required for admission to the major or minor and exit from CPIA. Must be taken before or concurrently with first 300-level course. 2 Cr. S.

#### 230. German Media Literacy

Individual research using book, magazine, newspaper, radio, TV, video, CD-Rom and internet formats. How to search for needed information that is archived in German. Prereq.: completion of 100-level German courses, or transferred in equivalent coursework. 2 Cr. DEMAND.

#### 233. Introduction to Reading German

Independent practice with authentic materials as needed in the sciences, media, and technology. Reading skills emphasized. Intended for students who need to understand German texts for their science majors; optional for German majors and minors. Prereq.: 201 or Intermediate Low Proficiency. 1-3 Cr. DEMAND.

#### 251. Pronunciation/Intonation I.

Individualized practice in accurate reproduction of the German sound system. Phonetic alphabet and practice in transcription. Strongly recommended for students wishing to major/minor in the language and for licensure. Prereq.: 102 or permission of instructor. 2 Cr. F.

*NOTE: 8 credits in German at the 200-level (or the equivalent as determined by department or successful completion of GER 220) are prerequisite to all courses at the 300-level.*

#### 301. Conversation and Composition I.

Improves students' ability to create with language. Includes practice in reading, listening, speaking, writing and grammar. Must be taken

before or concurrently with 303. Required before any course beyond 303. 3 Cr. F.

#### 302. Conversation and Composition II.

Develops further proficiency in writing and speaking. Course includes practice in reading, listening, speaking, and writing and grammatical competence. Must be taken before or concurrently with 303. Required before any course beyond 303. 3 Cr. S.

#### 303. Genre I.

Study and analysis of important genres in German literature. Can be taken concurrently with 302. 3 Cr. S.

#### 320. Introduction to German Literature

Reading from Germanic lyric poetry to popular prose, drama, and film with emphasis on literature of women, Vietnamese, Turkish and other ethnic minorities in Germany. Prereq.: completed intermediate coursework or consent of instructor. 3 Cr. DEMAND.

#### 321. Fine Arts Abroad

For students participating in the study abroad program in Ingolstadt. Classroom preparation and field trips to museums, music, theatre, and reading performances as part of the Ingolstadt curriculum. Taught by the program director in collaboration with on-site support staff. 3 Cr. S/SUM. Course can be repeated once while abroad.

#### 322-422. Urban History and Development Abroad

For students participating in the study abroad program in Ingolstadt. Classroom preparation and field trips to local sites in Bavaria, Brandenburg, Berlin, and other parts of Germany, Austria, and Switzerland budget permitting. Visits to businesses, local governments, and media. Taught by the program director in collaboration with on-site support staff. 3 Cr. S/SUM. Course can be repeated once while abroad.

#### 323-423. Cultural Life and Traditions Abroad

For students participating in the study abroad program in Ingolstadt. Classroom preparation and field trips to local events in Bavaria that demonstrates the culture and lore of the region. Events will include theater and dance performances, concerts, and literary events. Taught by the program director in collaboration with on-site support staff. 3 Cr. S/SUM. Course can be repeated once while abroad.

#### 324. German Women Writers

Study and analysis of texts by German women writers from a socio-historical perspective. Prereq.: 301 or permission of instructor. 3 Cr. DEMAND.

#### 325. German Film

Study and analysis of German cinema from the literary, social, technical, and theoretical perspectives. Prereq.: 301 or permission of instructor. 3 Cr. DEMAND.

#### 326. Literature in Translation

Study of aspects of German literature in translation from Middle High German period to the present. This course will apply to a major program only if no course outside the German program is used to complete program. 3 Cr. DEMAND.

#### 341. Cultural History

Introductory studies in the history, culture, geography and civilization of German-speaking countries. Prereq.: 302. 3 Cr. DEMAND.

*NOTE: Must be admitted to German major/minor prior to registration in any 400-level course.*

#### 403. Genre II.

Advanced study and continued analysis of genres in German literature. 3 Cr. S.

#### 411. Advanced Studies in German Literature

Study of particular German-speaking author of specific topics in German or German-American literature. Prereq.: 303. 3 Cr. May be repeated for a total of 6 credits. DEMAND.

#### 421. Advanced Studies in German Civilization

Intensive study of a particular aspect of the historical, sociological, artistic, political or intellectual development of the German-speaking peo-

ples as announced in advance. Prereq.: 302 or permission. 3 Cr. DEMAND.

**451. Pronunciation/Intonation II.**

Analysis of German phonology for native speakers of English; development of practical and theoretical competence in the sound system of German. Primarily for students of German as a second language and prospective teachers. Required for licensure. Prereq.: ENGL 361 (for BS) or permission. 3 Cr. F

**452. Advanced Grammar**

Analysis and practice of German morphological, syntactical, and grammatical aspects. Directed toward a clearer understanding of relationships between grammatical forms and the meanings they express. Primarily for students of German as a second language and prospective teachers. Required for licensure. Prereq.: ENGL 361 (for BS) or permission. 3 Cr. S.

**457. Senior Project (BA)**

Research-based thesis on selected topics in German literature or culture. Capstone course for major in German in transition to graduate studies or career. Taken during last semester of undergraduate studies. 2 Cr. F, S.

**459. Orientation to Study Abroad**

On-campus orientation during semester prior to study abroad experience. Prereq.: acceptance into SCSU study abroad program. 1 Cr. F

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**418/518. Ethnic and Social Minorities in German-Speaking Countries**

Study of ethnic minorities in German speaking countries. 3 Cr. DEMAND.

**454/554. 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. B.S. 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.

**456/556. 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.

**460/560. 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. 3 Cr. Prereq.: study abroad enrollment. S, SUM.

**461/561. 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.

**471/571. Business German**

Legal system; business administration; job market; banking, manufacturing, and service industries; real estate. 2-4 Cr. Prereq.: 302, or permission of instructor.

**COURSE DESCRIPTIONS – JAPANESE**

**+101, 102. Elementary Japanese I, II (MGM)**

Elementary grammar, vocabulary, writing system, and the spoken language. Must be taken in sequence. 4 Cr. 101-F; 102-S.

**+201, 202. Intermediate Japanese I, II (MGM)**

Review and expansion of basic vocabulary and grammatical structures, conversational practice, listening comprehension, written expression and reading. Students will prepare for oral and written proficiency exams during these courses. Must be taken in sequence. Prereq. for 201: 102 or equiv.; Prereq. for 202: 201 or equiv. 3 Cr. each. 201-F; 202-S.

**COURSE DESCRIPTIONS – RUSSIAN**

**+101, 102. Elementary Russian I, II**

Introduction to the Russian language and culture including mastery of the Cyrillic alphabet and proficiency in basic vocabulary and grammar. 4 Cr. each. 101-F; 102-S.

**+201, 202. Intermediate Russian I, II**

Review and expansion of basic vocabulary and grammar with special emphasis on developing proficiency in reading, writing and speaking. Prereq. for 201: 102 or equiv.; Prereq. for 202: 201 or equiv. 3 Cr. each. 201-F; 202-S.

**301, 302. Conversation & Composition I, II**

Broadening skills in oral and written expression on themes drawn from Russian literature and contemporary society. Prereq. for 301; 202 or equiv.; Prereq. for 302: 301 or equiv. 3 Cr. each. 301-F; 302-S.

**320. Russian Media and Culture**

Development of reading, writing and listening skills through the study of Russian culture in print, film and electronic media. Prereq.: 202, may be taken concurrently with 302. 3 Cr. S.

**323. Form and Style in Russian Literature**

Selections in Russian literature 3 Cr. F

**452. Advanced Grammar**

Analysis of Russian morphological and syntactic features requiring special attention for native speakers of English. 3 Cr. DEMAND.

**457. Senior Project**

Integrates knowledge, skills and interests to develop project with a faculty mentor. Capstone course in transition to graduate studies or to a career. Taken during last semester of undergraduate studies. Prereq.: all other courses in Russian minor. 2 Cr. F; S.

**COURSE DESCRIPTIONS – SPANISH**

**+101, 102. Elementary Spanish I, II**

Vocabulary, grammatical structures and an introduction to the cultures of the Spanish-speaking world. Emphasis on the spoken language, some reading and writing. Promotes understanding and appreciation of the cultures of the various Spanish-speaking countries. Required lab/library assignments. Intended for students with little or no previous study of Spanish. 4 Cr. each 101-F; S, SUM; 102-F; S.

*NOTE: No course below 200-level may count in major/minor program.*

**+201, 202. Intermediate Spanish I, II**

Review and extend the skills of listening, reading, speaking, and writing for purposes of communication. Access to a variety of technological learning aids. Directed toward linguistic and cultural awareness. Prereq. 102 or equivalent for 201. 201 or equivalent for 202. 3 Cr. each. 201-F; S. 202-F; S.

**220. Oral Proficiency in Spanish**

Development of Spanish speaking proficiency and satisfactory performance of an individual oral proficiency interview in Spanish. Before or concurrently with first 300-level Spanish course. 2 Cr. F, S.

### 230. Media Literacy

Extension and application of listening and reading skills strategies through use of print media, the World Wide Web, audio and video tapes, movies, and CD-rom. Concurrent with either 201, 202, or 220 but prior to first 300-level course. 2 Cr. F, S.

*NOTE: Satisfactory performance on an oral proficiency interview is prerequisite to all courses numbered above 301.*

### 301. Oral and Written Expression I.

Oral and written practice based on themes drawn from the contemporary culture of Spanish-speaking countries; review and practice of grammar. Directed toward increasing fluency and correct expression. Must be taken before or concurrently with 331 or 341 and before any 400-level course. Prereq.: 202 or equivalent and 220. 3 Cr. F, S.

### 302. Oral and Written Expression II.

Written and oral practice based on themes drawn from contemporary culture of Spanish-speaking countries; review and practice of grammar. Directed toward correct expression of a more sophisticated nature. Must be taken before or concurrently with 331 or 341 and before any 400-level course. Prereq.: 220, 301 or permission. 3 Cr. F, S.

### 330. Teaching Spanish in U.S. Secondary Schools

Guided observation of teaching strategies/techniques appropriate to beginning Spanish classes in U.S. secondary schools. For native speakers of Spanish with minimal experience in U.S. secondary schools. May substitute for Span 301 in B.S. major/minor program, with approval of B.S. adviser. Prereq.: permission of instructor. 3 Cr. DEMAND.

### 331. Introduction to Literary Studies

Analysis of the principal literary periods, movements and genres of Spanish and Spanish-American literature. Must be taken concurrently with 301 or 302 and before any 400-level course. Prereq.: 202, 220. 3 Cr. F.

### 341. Culture and Civilization

Integrates language, history, geography and culture to present a comprehensive view of life in 21 countries where Spanish is spoken. Must be taken concurrently with 301 or 302 and before any 400-level course. Prereq.: 202, 220. 3 Cr. S.

### 411. Advanced Studies in Literature

Study of a particular Spanish or Spanish-American author or specific topics in Spanish and/or Spanish-American literature. Prereq.: 302, 331, 341. 3 Cr. May be repeated for total of 6 credits. ALT.

### 430. Contemporary Peninsular Prose

Development of the Spanish novel since the end of the Civil War (1939); socio-cultural transformations occurring in Spanish society during the 20th Century. Prereq.: 302, 331, 341. 3 Cr. ALT.

### 432. Spanish Golden Age-Drama

Individual self in conflict with society; issues of exclusion and resistance, race and gender oppression, and class and religious strife in representative plays of Lope de Vega, Cervantes, Tirso de Molina, and Calderon de la Barca. Prereq.: 302, 331, 341. 3 Cr. ALT.

### 433. Spanish Poetry

Reading and discussion of representative poems from the Middle Ages to the Generation of 1927. Prereq.: 302, 331, 341. 3 Cr. ALT.

### 440. Spanish-American Prose

Representative works and authors of the Spanish-American narrative in their social and historical context. Prereq.: 302, 331, 341. 3 Cr. ALT.

### 442. Spanish-American Poetry

Analysis of the most prominent authors, themes, and styles in different periods. Prereq.: 302, 331, 341. 3 Cr. ALT.

### 443. Spanish-American Literature by Women

Analysis of the most prominent female authors in various periods. Prereq.: 302, 331, 341. 3 Cr. ALT.

### 451. Pronunciation

Analysis of the phonological features of Spanish, contrasting the characteristics of the Spanish sound system with those of English. Intended primarily for students of Spanish as a second language and for prospective

Spanish teachers. Prereq.: ENGL 361, SPAN 302. May be taken concurrently with 302 and 341 with permission of instructor. 3 Cr. S.

### 452. Advanced Grammar

Descriptive analysis of spoken and written Spanish, including contrasts with English. Relationships between grammatical forms and the meanings they express. Primarily for students of Spanish as a second language and prospective Spanish teachers. Prereq.: ENGL 361, SPAN 302. May be taken concurrently with 302 and 341 with permission of instructor. 3 Cr. F.

### 457. Senior Project (B.A.)

Integrates knowledge, skills and interests to develop project with a faculty mentor. Capstone course in transition to graduate studies or to a career. Taken during last semester of undergraduate studies. Prereq.: all other courses in Spanish major/minor. 2 Cr. F, S.

### 459. Orientation to Study Abroad

On-campus orientation during semester prior to departure. Prereq.: acceptance into SCSU study abroad program. 1 Cr. F.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 454/554. 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. B.S. 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.

### 456/556. 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.

### 460/560. 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 for total of 6 credits with permission. DEMAND.

### 461/561. 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.

### 471/571. 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

*A program of the College of Social Sciences.*

**Chairperson** To be decided. **Faculty:** Baker, R. Bixby, Coppock, Moberg, Richason, Stensland, Torguson, Wixon.

The Geography program provides the student with an awareness that the earth's phenomena are spatially associated and often interdependent. Emphasis is placed upon the principles basic to a general geographic education and upon the associated skills required for the teaching of geography or for non-teaching professional employment. Important elements of geographic training include regional, topical, physical and cultural studies as well as applied skills in mapping, aerial photo interpretation, field observation and geographic information sys-

tems. Land use planning with an urban or regional framework and travel/tourism also present important thrusts in this program.

### **BACHELOR OF ARTS**

#### **Major (39)**

Required Core: GEOG 250, 270, 271 or regional course, 273, 274, 390, 432 (21). Electives (18 credits) must be upper division courses -- internships are in addition to the 39 credits.

#### **Tourism Emphasis in Geography Major (39)**

Required core plus Tourism Emphasis GEOG 279, 290, 396, 496; URB 200. One three-credit elective in Geography.

#### **Travel Emphasis in Geography Major (39)**

Required core plus Travel Emphasis GEOG 290, 360, 361, 460, 469 or 470, one three-credit elective in Geography.

#### **Minor (24)**

GEOG 270, 271 or regional course, 273, 274 (12)  
12 credits of electives 300/400 courses.

#### **Geographic Information Science Minor (21)**

GEOG 316, 350, 402, 406, 407, 408, 462. Up to 9 credits may be double counted for geography majors.

#### **Tourism Emphasis in Geography Minor (24)**

Required core: GEOG 250, 270, 271 or regional course, 273, 274  
Tourism Emphasis GEOG 290, 396, 496

#### **Travel Emphasis in Geography Minor (27)**

Required core: GEOG 250, 270, 271 or regional course, 273, 274  
Travel Emphasis GEOG 290, 360, 361, 469 or 470.

### **BACHELOR OF SCIENCE (NON-TEACHING)**

#### **Land Surveying/Mapping Sciences Major (61)**

GEOG 316, 335, 336, 350, 402, 406, 407, 408, 462, 490, 499; URB 200; FIRE 378; MKGB 388; MATH 221, 222, 321; STAT 229, 321.

Must have a degree, certificate or diploma from a Community or Technical College that has an articulated agreement with SCSU. (Please contact Admissions for list of articulated colleges.) Up to 12 credits can be doubled counted.

### **BACHELOR OF SCIENCE (TEACHING)**

SCSU offers a variety of majors that lead to secondary social studies licensure in Minnesota.

The University's approved licensure program includes: SSCI 104, ANTH 150, ECON 201, GEOG 253, HIST 285, PSY 324, POL 201, SOC 304, SSCI 421, SST 453.

Many of these teacher licensure courses as well as a number of the courses in the major can be used for general education credit.

Individuals who plan to seek this licensure should consult the social studies licensure coordinator in the College of Social Sciences immediately upon enrolling at SCSU or changing to this field to determine the current plan for the social studies licensure competencies to be developed and demonstrated. A 2.50 GPA overall is required for admission to the Bachelor of Science Geography and Social Studies-Geography emphasis programs in the Department of Geography.

This program is periodically reviewed and updated. Changes will be noted in the on-line catalog as they are approved. The social studies licensure coordinator will assist students with the changes.

#### **Major (28)**

A total of 28 GEOG credits at 200-level or above. A minimum of four topical and four regional courses in Geography.

#### **Social Studies Major-Geography Emphasis (30)**

Geography Core  
GEOG 270, 271, 273, 274 (12 Cr.)

GEOG electives (15) – must be at 200-level or above.  
Regional courses (9 Cr, one must be at 200-level or above.)  
Topical courses (6 Cr.)  
HIST 106 or 150

### **BACHELOR OF ELECTIVE STUDIES**

#### **Major (36)**

Completion of any 36 Cr. in geography with approval of major adviser.

#### **Minor (24)**

Completion of any 24 Cr. in geography with approval of adviser.

### **COURSE DESCRIPTIONS**

#### **+101. World Place Location (MGM)**

Location and geographic significance of major cultural and economic centers, political units, and important physical features in the landscape. 3 Cr. F, S.

#### **+111. Introduction to Global Geography (MGM)**

Global geographic thinking; understanding of global patterns. 3 Cr. F, S.

#### **250. Map Fundamentals**

Map types, measurement and analysis associated with their use.

Integrated Lab. 3 Cr. F, S.

#### **253. Theories and Concepts in Geography**

Philosophy, theories, concepts, methods, and techniques in the teaching of geography; required for Minnesota social studies teacher certification. 3 Cr. S.

#### **269. Asian Crescent**

Physical and human geography of South, Southeast, and East Asia. Regional. 3 Cr. ALT.

#### **270. Introduction to Cultural Geography**

Landscapes created by human actions population; migration; languages; religion; nation-states; rural and urban livelihood; and rural and urban settlements. Topical. 3 Cr. F, S.

#### **271. Economic Geography**

Spatial patterns and organization of economic activities. Topical. 3 Cr. F, S.

#### **+273. Physical Geography**

Geographic location, time/longitude concepts, earth-sun relationships, and spatial patterns of weather and climate. Integrated Lab. 3 Cr. F, S.

#### **274. Physical Geography II.**

Spatial patterns of vegetation, soils, and land forms: interrelatedness, distribution, and human adjustment/modification. Integrated Lab. 3 Cr. F, S.

#### **+275. Geography of the United States**

How the cultural and physical elements of geography combine to impart regional identity. Regional. 3 Cr. F, S.

#### **277. Geography of South America**

Physical geography, resources, and people of regions in each South American country: economic stage and future development. Regional. 3 Cr. F.

#### **279. Geography of Outdoor Recreation**

Perception, use, and management of amenities of landscape, particularly landscape of the United States of America. Topical. 3 Cr. F, ALT.

#### **290. Survey of Travel and Tourism**

Applied geographic overview of travel and tourism: their development and impact upon destinations. 3 Cr. F, S.

#### **303. Environmental Impact Statements**

Preparation and use of environmental impact statements. Topical. 3 Cr. ALT.

#### **316. Introduction to Geographic Information Systems**

Concepts of GIS, including the capture, preprocessing, storage, manipulation, and display of the spatial data. Prereq.: 250 or approval of instructor. Integrated Lab. 3 Cr. F, S.



**325. Geography of Soils**

World-wide distributions, characteristics, and uses of major soil groups. Properties of soils classification schemes. 3 Cr. ALT.

**335. Introduction to Land Surveying**

Land survey equipment for the measurement of distances, angles, and elevation. Mostly outside work. Integrated Lab. 3 Cr. F.

**336. Advanced Land Survey**

Application of basic land surveying techniques to complex land survey situations. Integrated Lab. Prereq.: 335 or consent of instructor. 3 Cr. S.

**350. Introduction to Remote Sensing**

Analysis of photographic images on the earth's landscape to identify objects that reveal spatial relations, and interpreting their significance. Consent of instructor. Topical. Integrated Lab. 3 Cr. ALT.

**360. Geography of Travel and Tourism I.**

Applications of geographic concepts to travel and tourism. Information, terminology, and skills, vital to international air travel. Prereq.: 290. 3 Cr. S.

**361. Geography of Travel and Tourism II.**

Advanced study of travel and tourism, domestic air travel, land and water transportation systems, and route planning. Prereq.: 290, 360. 3 Cr. F.

**368. Geography of the Middle East**

Geographical analysis of political, economic, and social issues relevant to the Middle East. Regional. 3 Cr. ALT.

**+372. Conservation of World Resources**

Conservation movement and its expression in conservation policies and activities. Supply, use, and management of natural resources, their planned development and use. Topical. 3 Cr. F.

**373. Geography of Middle America**

Geographic analysis of Mexico, Central American and West Indian Islands. Physical, cultural, and political diversities of the region and its strategic, economic and political importance to the United States. Regional. 3 Cr. S, ALT.

**374. Geography of Western Europe**

Regional treatment of areas dominated by the European Union. Interpretation of economic conditions. Regional. 3 Cr. ALT.

**376. Geography of Minnesota**

Geography of Minnesota: distribution of surface features, natural resources, climatic differences, crops and human activity. Regional. 3 Cr. F, S.

**378. Geography of Russia**

Physical and cultural characteristics and relationships of the land and population of Russia. Regional. 3 Cr. S.

**379. American Wilderness**

Perception, delineation, use and analysis of wilderness in the United States. 3 Cr. S.

**384. Geography of the British Isles**

Distribution of surface features, natural resources and cultural elements of the British Isles. Regional. 3 Cr. ALT.

**385. Retail Geography**

Study of the organization and location and connectivity of retailing activity. Use and value of land based upon absolute and relative location and connectivity. Integrated Lab. 3 Cr. ALT.

**390. Geography Field Course**

Geographic research methods; contemporary techniques for data collection, analysis, and presentation. Topical. 3 Cr. F, S.

**394. Introduction to Urban Planning**

Theory, objectives, and methods of the planning process, particularly in the United States. Topical. 3 Cr. F.

**396. Tourism Development**

Advanced study of tourism: analyzing and planning tourism resources. Prereq.: 290. 3 Cr. F.

**432. Applied Geography Seminar**

Application of selected geographical concepts and/or topics. Integrated Lab. Prereq.: Geography majors: completion of core courses and consent of instructor. May be repeated for a maximum of 6 credits. 3 Cr. F, S.

**444. Internship: Practical Geography**

Consent of department coordinator of internships required. 1-12 Cr. DEMAND.

**460. Advanced Travel Planning**

Planning for commercial group travel with special emphasis on travel arrangements. Prereq.: 290, 360, 361. 3 Cr. S.

**469. Automated System-Worldspan**

Information, content, and access to Worldspan travel automation system. Topical. Prereq.: 290, 360, 361. 3 Cr. F, S.

**470. Travel Automation**

Principles and capabilities of domestic and foreign travel automation systems. Topical. Prereq.: 290, 360, 361. 3 Cr. S.

**471. Historical Geography**

Geographic aspects of the discovery and settlement of North America. Topical. 3 Cr. ALT.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

**402/502. Techniques in GIS**

Spatial, network and surface analysis. Topical. Prereq.: 316 or consent of instructor. Integrated Lab. 3 Cr. F, S.

**406/506. Thematic Cartography**

Statistical mapping of spatial data, advanced manual and computer techniques. Topical. Prereq.: 250 or consent of instructor. Integrated Lab. 3 Cr. ALT.

**407/507. 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.

**408/508. 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.

**454/554. Regional Planning**

Comparative regional planning. Economic distribution and ideological differences. Topical. Integrated Lab. 3 Cr. F, ALT.

**455/555. 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.

**457/557. Preservation and Neighborhood Change**

District and neighborhood preservation, investment analysis, and racial issues. Integrated Lab. 3 Cr. F.

**462/562. Concepts in Spatial Analysis**

Standard techniques in geographic information systems. Topical. Prereq.: 402 or consent of instructor. Integrated Lab. 3 Cr. F, S.

**472/572. Geomorphology**

The configuration of the earth's surface and physical processes that have brought the surface to its present condition. Topical. 3 Cr. F.

**486/586. Political Geography**

Geographic concepts applied to the analysis of political organization and behavior. Topical. 3 Cr. S, ALT.

**490/590. Issues in Urban Geography**

Selected contemporary issues in urban Geography. May be repeated to a maximum of 6 credits. Prereq.: 394 or consent of instructor. Integrated Lab. 3 Cr. F, S.

**492/592. 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.

**496/596. 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.

## GERONTOLOGY (GERO)

365 STEWART HALL/255-3947

*A program of the Center for Community Studies, College of Social Sciences.*

**Director** Rona Karasik. **Program faculty:** S. Brundage, DeVoe, Hauslein, Havar, Karasik, Litterst, Mittlefehldt, Preble, Stensland, Whitford.

Gerontology is the interdisciplinary study of the processes of aging and of the successes, problems and needs of the aged. The realities of aging, including psychological, social, cultural, physical, and economic aspects affect everyone, as well as those who plan to work directly or indirectly with older adults.

The gerontology minor was developed to complement programs in biology, health, psychology, recreation, social science, social work, sociology, and other disciplines whose majors may have a personal or career interest in aging. There is a master's program in gerontology. Students interested in the minor or graduate program should confer with the director.

### BACHELOR OF ARTS

#### Minor (24 Cr.)

Required (9 Cr.): GERO 208, 411, 444

Electives: (15 Cr.)

*Distribution A: (6 Cr. maximum)*

AMST 302\*; CS 333; PSY 345; REC 339; SOC 350; SPC 431; SSCI 204\*; SW 275; URB 350\*.

Distribution A electives may be chosen in any field including the student's major. \*The theme of the course must be aging related and approved by the GERO adviser in order for the credits to count toward a gerontology minor.

*Distribution B: (minimum 9 Cr.)*

ANTH 420; APSY 423; BIOL 412; FIRE 479; GERO 415, 425, 435, 440; HLTH 411; HURL 409; PSY 443; SOC 473, 475. Students may not select Distribution B elective courses in their major. Other appropriate courses may be approved by the gerontology adviser.

### BACHELOR OF ELECTIVE STUDIES

#### Minor (24 Cr.)

Completion of 24 credits with approval of gerontology adviser.

### COURSE DESCRIPTIONS

#### 208. Introduction to Gerontology

Exploration of the processes of aging; introduction to issues of aging in contemporary society. A core course for the gerontology minor. 3 Cr. F, S.

#### 444. Internship

3-12 Cr. F, S.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 411/511. Aging Policy and Programs

The federal, state and local framework of services and programs for the aging. 3 Cr. F

#### 415/515. Women and Aging

Position of older women in society and issues that are unique to women as they age. 3 Cr. S, ALT.

#### 425/525. Dementia and Aging

The nature, causes and treatment of dementia in later life, including concerns for family, caregiving and community practice. 3 Cr. F

#### 435/535. 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.

#### 440/540. 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.

## HEALTH, PHYSICAL EDUCATION, RECREATION AND SPORT SCIENCE (HPERSS)

227 Halenbeck Hall/255-4251

*Programs of the Department of Health, Physical Education, Recreation and Sport Science. See also College of Education descriptions and requirements.*

**Chairperson** Rodney Dobey. **Faculty:** Bacharach, Brink, Collins, Dobey, Glowatzke, Hanafy, Heydt, Hortis, Copley, Leigh, Martin, Nearing, Oxton, Palmer, Risk, Schlagel, Seifert, Serratore, Sheehan, Street, Thompson, Ulferts, Waxlax, Zezoney, Ziemer.

The Department of Health, Physical Education, Recreation and Sport Science offers an array of undergraduate and graduate programs for students interested in either teaching or non-teaching careers in health, physical education, recreation or sport science related professions.

Early contact by interested students with the department chairperson and/or designee is highly encouraged. Transfer courses must be approved by the chairperson and/or designee for major/minor/licensure programs.

Students are responsible for either furnishing their own equipment and/or supplies or renting equipment for the following courses: PESS 115, 200, 201, 202, 204, 275. Special fees are required for the following courses: HLTH 395, 406, 446; PESS 200, 201, 203, 204, 206, 210, 222, 232, 238, 248, 270, 271, 275, 304, 349, 423, 430, 449; REC 495. The following courses may be subject to special fees: PESS 249, 448/548, 523, 549.

Contact the HPERSS Department chairperson/designee regarding PPST restricted courses for teaching majors.

## HEALTH (HLTH)

227 HALENBECK HALL/255-4251

The health component of the Department of Health, Physical Education, Recreation and Sport Science offers programs designed to meet the needs of individuals and agencies associated with health and safety. The programs within the component include: health education majors and minors, community health majors and minors and traffic safety minors.

Approximately one-third of the necessary credits for programs in the department may be accepted in transfer.

### BACHELOR OF SCIENCE

#### Health Education Major (42)

HLTH 210, 215, 305, 315, 415, 438, 481, 482; CHEM 210; SOC 160; PESS 206; PESS 248, 349 or BIOL 202, 204; Select one biology course (4 Cr.) or one psychology/applied psychology course (4 Cr.) with the consent of adviser.

#### Community Health Major (51)

A. Required (39): HLTH 210, 215, 220, 305, 405, 430, 446, 475, 481, 482; PESS 206. Anatomy and Physiology (6 Cr.): Choose from PESS 248, 349 or BIOL 202, 204. Three credits in Statistics: Choose from

PSY 201, STAT 229, or SOC 304.

B. Electives (6-12): Choose from the following: HLTH 250, 255, 350, 393, 412, 430, 446; BIOL 206, 312, 332, 266, 262, 362; PHIL 455; POL 380; PSY 345; REC 339; SOC 160, 475; GERO 208.

**Health Education Minor (27)**

HLTH 210, 215, 305, 315, 415, 438, 481; PESS 206, 248, 349.

**Community Health Minor (27)**

PESS 206, 248; HLTH 210, 215, 220, 305, 481, 482. Plus 6 elective credits with consent of adviser.

**BACHELOR OF ARTS AND BACHELOR OF SCIENCE**

**Traffic Safety Minor (20)**

Required core (6): HLTH 305, 393

Interest areas and electives include:

Education: TSE 290, 390, 398, 454/554, 490/590

Management: HLTH 396

Criminal Justice: HLTH 391, 395, 396, 397, 406

EMS: HLTH 395, 406

Other electives: HLTH 190, 444

**BACHELOR OF ELECTIVE STUDIES**

**Health Education Major (36)**

Completion of 36 credits with approval of department.

**Health Education Minor (24)**

Completion of 24 credits with approval of department.

**Traffic Safety Minor (24)**

Completion of 24 credits with approval of department.

**COURSE DESCRIPTIONS – HEALTH**

**+125. Fundamentals of Health**

Development of acceptable health information and practices including personal and community health for the present and future of the student and her/his family. 2 Cr. F, S, SUM.

**+190. Transportation Systems**

A basic study of various transportation systems in the United States, their development, importance and future. An emphasis on highway transportation. 3 Cr. DEMAND.

**210. Principles of Nutrition**

Overview of basic principles of nutrition. Applied nutrition, selection of an adequate diet, dietary standards, tables of food composition, and dietary problems. 2 Cr. F, S, SUM.

**215. Personal and Community Health**

Exploration of personal and community problems in selected emotional, social, physical, intellectual areas. 2 Cr. F, S, SUM.

**220. Public Health**

Historical background development, areas, programs, activities, and organization of public health. 3 Cr. F, S.

**250. Consumer Health**

Exploration of consumer health issues: types, cost, and availability of health care, products, and services; health quackery, fads, and consumer protection. 3 Cr. S, ALT.

**255. Women's Health Issues**

Study of historical and current health issues affecting women. 3 Cr. S.

**305. Principles of Safety Education**

Theories of accident causation and prevention are discussed with special emphasis on the role of education. Includes home, fire, recreation, industry, transportation, and school. 3 Cr. F, SUM.

**315. Organization of Elementary and Secondary School Health Program**

History; legal basis; curriculum; school health services and program;

emotional climate of school; emergency care; evaluating results of health instruction; role of physical education in health. 3 Cr. S.

**350. International Health**

Current health problems, issues, practices, and programs of international scope and significance. 3 Cr. DEMAND.

**391. Traffic Law, Enforcement, and Licensing**

A study of the organization and function of laws, rules and regulations related to traffic safety and law enforcement. 3 Cr. F.

**+393. Alcohol, Drugs and the Driving Task**

The relationship of alcohol, marijuana, hallucinogens and other drugs to the driving task. Their effect on driving behavior, attitudes and traffic accidents will be emphasized. 3 Cr. F, S.

**395. First Responder**

A practical course for emergency personnel or first responders to the scene of an accident. Emphasis is placed on caring for victims and eliminating further damage. 3 Cr. F.

**396. Accident Investigation**

Designed to assist fleet, enforcement, industry and insurance personnel to better understand accidents through accident investigation.

Principles of reconstruction, preventability and traffic management techniques. 3 Cr. S, ALT.

**397. Traffic Patrol Management-Methods and Techniques**

Basic course of study for the person pursuing a career in traffic patrol management and investigation. Vehicle stops, pursuit driving, DWI testing, radar use, traffic homicide and court testimony are discussed as they relate to traffic safety/enforcement professionals. 3 Cr. S, ALT.

**405. Mood Modifying Substances in Contemporary Society**

A study of mood modifiers including alcohol and nicotine. Suggested education strategies pre-K-12. Complies with requirement of MSA 126.05. Prereq.: 90 Cr. of prior course work. 2 Cr. F, S, SUM.

**406. Emergency Medical Technician**

Final course for US DOT EMT-B certification. Emphasis is placed on diseases, injury mechanism, practical skills and supervised clinical experience in emergency field medicine. Ambulance and emergency room observation time required. Prereq.: 395. 3 Cr. S.

**438. Methods and Materials in Elementary and Secondary School Health Education**

Activities, projects, and units in health curriculum at elementary and secondary school levels. Prereq.: 210, 215, 305, 315, 405, 415, 481. Must complete before student teaching. 3 Cr. F.

**444. Internship, General**

Arranged by contract with field supervisor, college supervisor and student. Should be established semester previous to experience. Credits awarded are determined by clock hours involved. 1-12 Cr. DEMAND.

**446. Internship, Community Health**

Arranged by contract with field supervisor, college supervisor and student. Should be established semester previous to experience. Credits awarded are determined by clock hours involved. Special fees required. Prereq.: 220 plus 21 additional credits in the Community Health major. 6, 8, 12 Cr. F, S, SUM.

**475. Epidemiology**

Systematic study and analysis of the frequency and distribution of illness and disability among and within populations. Prereq.: 215 or 220, or consent of the instructor. 3 Cr. F, SUM.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**411/511. 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.

**412/512. 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.

**415/515. Health Education Development Curriculum**

Organization and development of a school health curriculum, K-12; techniques for course of study construction. Prereq.: 210, 215, 315, 405, 481. 3 Cr. F

**430/530. 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.

**481/581. 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 Cr. S, SUM.

**482/582. Environmental Health**

Effects of environmental factors, processes, and activities on human's health, comfort, welfare and survival. Prereq.: 125 or 215 or instructor's consent. 3 Cr. S, SUM.

**484/584. Health Promotion**

Overview of the health promotion field, its application in employment and organizational settings. Content includes: planning, design, implementation, and evaluation of organizational health promotions. 2 Cr. DEMAND.

**PHYSICAL EDUCATION AND SPORT SCIENCE (PESS)**

227 HALENBECK HALL/255-4251

*Programs of the Department of Health, Physical Education, Recreation and Sport Science. See also College of Education descriptions and requirements.*

A variety of courses are offered for the teaching and non-teaching majors, minors and licensures in physical education and sport science related fields, as well as the all university requirement in lifelong health and fitness.

Physical education and sport science majors require a 2.5 GPA.

**BACHELOR OF ARTS**

**Physical Education and Sports Science Major (47-48)**

Required: HLTH 210, 215; PESS 206, 248, 349, 449.

Select one of the following three tracts:

a. **Athletic Training:** CHEM 210; HLTH 395, 406; PESS 304, 313, 314, 315, 405, 448; PHYS 231.

b. **Exercise Science:** BIOL 308; CHEM 210, 240, 241; PESS 423, 448; PHYS 231; PSY 201.

c. **Sport Management:** PESS 120, 304, 408, 432, 433, 491; REC 415, 416; 13 credits of electives with adviser's approval.

**BACHELOR OF ELECTIVE STUDIES**

**Physical Education Major - Non-teaching (36)**

Completion of 36 credits with approval of department.

**BACHELOR OF SCIENCE**

**Physical Education**

**Major (50)**

HLTH 215; PESS 101, 103, 104, 112, 123, 131, 133, 161, 167, 206, 249 (or 248, 448), 295, 300, 312, 332, 349, 358, 359, 360, 367, 378, 411, 449, 452, 453; REC 441 and 1 credit of Lifetime Leisure Activity.

Courses taken in the major, including lifetime leisure activities must be taken for a letter grade. Only letter grades of "C" will be accepted for the major program. PPST must be taken before enrollment into selected 300/400 level courses. All courses in the physical education teaching major must be taken prior to student teaching. Students must have a current certification in Responding to Emergencies or equivalent for student teaching.

The required GPA is 2.5 for being admitted into the major.

**Dance Minor (24)**

Required: PESS 111, 211, 234, 249, 311, 435. Select 5 credits from the following: PESS 125, 133, 161, 211, 219, 225, 226, 235, 332. Select 6-8 credits from dance, theater, art, music or PESS with adviser's consent for a minimum of 24 credits.

**Athletic Coaching Minor\* (21)**

Required: PESS 206, 249, 304, 339, 456.

Select two: PESS 221, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260.

Select one: PESS 355, 408, 491.

Electives: 3 credits from the following: PESS 300, 355, 408, 349, 448, 449, 491, or any officiating/judging course (PESS 305, 306, 321, 324, 326).

*\*This minor includes the current Minnesota coaching requirements for men and women.*

**Developmental/Adapted Physical Education Minor (26)**

Interested students must complete: Bachelor of Science degree with a physical education teaching major; the teacher education requirements; SPED 403, 436; and PESS 300, 312, 369, 461, 462, 463, 464, 465.

Students completing the physical education teaching major will have enough competencies (10 credits) in D/APE for a provisional license. Provisional licenses are deemed necessary by school districts when fully licensed teachers cannot be obtained. Provisional licenses must be converted to a full license within two years.

**COURSE DESCRIPTIONS – PESS**

**101. Team Sport Skills**

Team sport skills for physical education teaching majors. 2 Cr. F, S.

**103. Track and Field**

Strategy, skills, and rules in track and field for physical education teaching majors. 1 Cr. F, S.

**104. Individual and Dual Sports Skills**

Skills, drills, error correction, rules and strategies of individual and dual sports for physical education teaching majors. 2 Cr. F; S.

**106. Community First Aid and Safety**

Training individuals to overcome any reluctance to act in emergency situations and to recognize and care for life-threatening emergencies, such as respiratory or cardiac problems, sudden illness, or injuries to infants, children, or adults. Special fee will cover supplies and equipment required. 1 Cr. F; S, SUM.

**111. Modern Dance I.**

Fundamental skills in modern dance technique, improvisation, and composition. 1 Cr. DEMAND.

**112. Gymnastics**

Techniques of fundamental skills for physical education majors. 1 Cr. F; S.

**115. Contemporary Activities**

Fundamental skills and knowledge of contemporary physical activities. Activities will change as popularity dictates. 1 Cr. May be repeated with different activities for a maximum of 4 Cr. DEMAND.

**120. Aerobic Fitness**

Designed to enhance cardiovascular health by studying appropriate physiological principles. Students also will participate in one or more forms of aerobic exercises; e.g. walking, running, swimming, cycling, skiing, dancing, etc. 1 Cr. F; S.

**122. Lifelong Health and Fitness**

Study of appropriate physiological and psychological aspects to gain knowledge, experiences, and skills needed to develop and maintain a healthy and fit lifestyle. 1 Cr. F; S, SUM.

**123. Weight Training**

Designed to offer systematic strength training programs and conditioning techniques. Optional grading for non physical education majors. 1 Cr. F; S.

**125. Social Dance**

Basic skills and knowledge in social dance forms. 1 Cr. DEMAND.

**126. Aerobic Dance**

Basic aerobic fundamentals, participation in exercise and aerobic dance to music. Individual aerobic fitness tests. 1 Cr. DEMAND.

**130. Skating**

Skills involved in beginning figure skating, as well as recreational and power skating techniques. Student must furnish figure skates. Optional grading. 1 Cr. DEMAND.

**131. Developmental Activities for PreK-6**

Physiological, kinesiological and psychological concepts, principles and ideas pertaining to movement participation of PreK-6 school children. 1 Cr. F; S.

**133. Creative & Traditional Dance for the Elementary School**

Basic dance elements applied to creative dance, rhythmic activities, and simple folk dances appropriate for children. 1 Cr. F; S.

**135. Swimming for Individuals with Special Needs**

Designed especially for individuals who for psychological and/or physical reasons cannot participate in an inclusive swimming class. *S/U* grading. 1 Cr. DEMAND.

**137. Swimming**

Instruction in swimming, including basic strokes and related skills, personal safety skills, and endurance swimming. 1 Cr. DEMAND.

**140. Self-Defense for Women**

Fundamental skills and techniques of fall, rolling, throwing and breaking holds. Specific emergency techniques of self-defense and specific safety skills. 1 Cr. DEMAND.

**144. Volleyball**

Volleyball skills and techniques. 1 Cr. DEMAND.

**152. Physical Fitness**

Physical fitness tests, calisthenics, running, fitness, activities, leadership techniques. 1 Cr. DEMAND.

**153. Ultra Fitness**

Conditioning techniques and intense activities designed to increase and maintain fitness levels of the physically fit and well conditioned stu-

dent. Permission of instructor. May be repeated for a maximum of 3 credits. 1 Cr. DEMAND.

**160. Slow Pitch Softball**

Techniques, skills and strategy. 1 Cr. DEMAND.

**161. Dance Skills for Physical Education Majors**

Developing dance skill and knowledge. Prereq.: 133. 1 Cr. F; S.

**167. Basic Swimming Skills**

Instruction in basic swimming strokes and related aquatic skills, personal safety skills, and basic rescue skills. Required for Physical Education Teaching Majors who do not have a Water Safety Instructor Certification. Prereq.: Must pass departmental swimming pre-skill test. 1 Cr. F; S.

**200. Beginning Skiing**

Basic skiing techniques and knowledge. Tow fee charged. Bus and equipment use for a fee are optional. *S/U* grading only. 1 Cr. DEMAND.

**201. Intermediate Skiing**

Techniques geared to those with some skiing experience. Students should have mastered beginning skills including snowplow turns, wedge turns, right and left, braking and stopping. Tow fee charged. Bus and equipment use for a fee are optional. *S/U* grading only. 1 Cr. DEMAND.

**202. Cross Country Skiing**

Beginning and intermediate work in ski touring. Physical conditioning and optimum attire and equipment are addressed. Cross country techniques on level terrain and uphill/downhill skills are covered. Students furnish own equipment. 1 Cr. DEMAND.

**203. Snowshoeing**

Basic techniques and knowledge. For beginners only. Snowshoes furnished. 1 Cr. DEMAND.

**204. Advanced Skiing**

Advanced skiing techniques applied to a broad range of terrain and snow conditions. Prereq.: 201 or equivalent. Tow fee charged. Bus and equipment use for a fee are optional. *S/U* grading only. 1 Cr. DEMAND.

**206. Responding to Emergencies**

Skills and knowledge necessary to give aid to victims of trauma or sudden illness. Red Cross first aid and adult, child, and infant CPR certifications available. Special fee will cover supplies and equipment required. 2 Cr. F; S, SUM.

**210. Karate**

Terminology, fundamentals, basic techniques of blocking, punching, kicking, and the strategies of basic attack and defense. Kata is introduced. 1 Cr. DEMAND.

**211. Dance Composition**

Fundamental composition elements used in different dance techniques with emphasis on modern dance. Prereq.: 111. 1 Cr. DEMAND.

**213. Bicycling**

Intermediate-level bicycling. Includes self-conditioning, bicycling skills, safety considerations and tours. Student furnishes own bicycle. 1 Cr. DEMAND.

**219. Basic Ballet**

Basic skills and knowledge of classical ballet techniques for the beginning student. 1 Cr. DEMAND.

**221. Coaching Wrestling**

Theory and practice of coaching wrestling. 2 Cr. F (Odd Years).

**222. Bowling**

Techniques and knowledge of bowling. Fee for equipment and lane. 1 Cr. DEMAND.

**225. Modern Jazz Dancing**

Fundamentals, techniques and compositions. 1 Cr. DEMAND.

**226. Beginning Tap Dance**

Fundamentals, basic steps and knowledge. 1 Cr. DEMAND.

**228. Racquetball**

Terminology, fundamental skills of serving, forehand, backhand, and wall play. Singles and doubles games. Student must furnish own racquet, eye guard and balls. 1 Cr. DEMAND.



**230. Tennis**

Stroke development, rules, terminology, singles and doubles strategy. Student must furnish own racquet and balls. 1 Cr. DEMAND.

**232. Badminton**

Basic techniques and knowledge in badminton, including rules, strategies, and etiquette for single and doubles games. 1 Cr. DEMAND.

**234. Modern Dance II.**

Skills in modern dance technique improvisation and composition from Modern Dance I. Prereq.: 111. 1 Cr. DEMAND.

**235. Global Dance**

Appreciation skill, and knowledge of dance from a variety of cultural heritages. 1 Cr. DEMAND.

**238. Archery**

History, basic techniques for target shooting. Terms, rules and etiquette. 1 Cr. DEMAND.

**248. Anatomy**

An introduction to gross human anatomy. A study of the structure of the organs and organ systems of the human. Lecture and lab.: 3 Cr. F, S, SUM.

**249. Anatomy/Kinesiology**

An introduction to gross anatomy and the study of human motion based on anatomical and mechanics principles. All major organs systems are addressed with emphasis placed on musculoskeletal application to exercise and sport. Lecture and lab. 4 Cr. F, S, SUM.

**250. Coaching Soccer**

Theory and practice of coaching soccer. 2 Cr. S.

**251. Coaching Basketball**

Theory and practice of coaching basketball. 2 Cr. F, S.

**252. Coaching Gymnastics**

Theory and practice of coaching gymnastics and tumbling. 2 Cr. DEMAND.

**253. Coaching Swimming and Diving**

Theory and practice of coaching swimming. 2 Cr. S.

**254. Coaching Hockey**

Theory and practice of coaching hockey. 2 Cr. S.

**255. Coaching Football**

Theory and practice of coaching football. 2 Cr. F, S.

**256. Coaching Baseball**

Theory and practice of coaching baseball. 2 Cr. DEMAND.

**257. Coaching Track**

Theory and practice of coaching track and field events. 2 Cr. S.

**258. Coaching Volleyball**

Theory and practice of coaching volleyball. 2 Cr. F

**259. Coaching Tennis**

Theory and practice of coaching tennis. 2 Cr. DEMAND.

**260. Coaching Softball**

Theory and practice of coaching softball. 2 Cr. S.

**270. Foil Fencing**

Basic techniques and knowledge in the use of the foil, including rules and strategies for bouting, and judging techniques. 1 Cr. DEMAND.

**271. Skin and Scuba Diving**

Techniques, knowledge and practices of skin and scuba diving (Self-Contained Underwater Breathing Apparatus). Emphasis on safety factors. Prereq.: Special ear-sinus examination needed. Special fee for equipment rental. 1 Cr. DEMAND.

**275. Golf**

Stroke development, rules, terminology, and strategies. Green fee required. 1 Cr. DEMAND.

**290. Basketball**

The basic skills and knowledge used in playing basketball. Optional Grading. 1 Cr. DEMAND.

**295. Foundations of Physical Education**

Historical, psycho-social and philosophical foundations of physical education. 3 Cr. F, S, SUM.

**300. Motor Behavior**

Study of how humans learn motor skills during the developmental

stages with emphasis on normal, delayed, and abnormal motor patterns. 3 Cr. F, S.

**304. Care and Prevention of Athletic Injuries**

Introductory course to the field of athletic training, including scientific and clinical foundations of athletic training and sports medicine. Prereq.: 248. 3 Cr. F, S, SUM.

**305. Officiating Football for Men**

Techniques and rules involved in officiating high school football. 1 Cr. F

**306. Officiating Basketball**

Techniques and rules involved in officiating high school basketball. 1 Cr. S.

**311. Dance Production**

Fundamentals in the productions aspects of dance performances. Lab. Prereq.: 111 and 211. 1 Cr. DEMAND.

**312. Inclusive Physical Education**

Inclusive teaching techniques for individuals with disabilities in physical education settings, PreK-12. Prereq.: 300. 3 Cr. F, S.

**314. Athletic Training Techniques I.**

Assessing the severity of athletic injuries and illnesses with emphasis placed on recognizing and evaluating signs and symptoms associated with athletic training. Prereq.: 248, 304. 3 Cr. Rotation: F, S, SUM.

**315. Athletic Training Techniques II.**

Theory, biophysical principles and the range of potential sports medicine applications for the various physical agent modalities are covered. Prereq.: 304, 314. 3 Cr. Rotation: S, SUM, F.

**316. Athletic Training Techniques III.**

A comprehensive guide to the design, implementation, and supervision of rehabilitation programs for sports-related injuries, with an emphasis on the practical application of theory in a clinical setting. Prereq.: 304, 315. 3 Cr. Rotation: SUM, F, S.

**321. Officiating Women's Volleyball**

Techniques, rules, problems and procedures. NAGWS rating possible. 1 Cr. F

**324. Judging Women's Gymnastics**

Preparation for judging women's gymnastics at high school level. National Federation and Minnesota State High School League rules applied. 1 Cr. DEMAND.

**326. Officiating Wrestling**

Techniques and rules involved in officiating men's high school wrestling. 1 Cr. F (Even Years).

**332. Techniques for Teaching Dance**

Methods of teaching different dance forms. Prereq.: 133, 161. 2 Cr. F, S.

**338. Practicum in Physical Education: Grades PreK-6**

Practical experience in regular physical education settings, grades PreK through 6. Minimum number of hours is 30. Prereq.: permission of instructor. 1 Cr. DEMAND.

**339. Coaching Practicum**

Practical experience in coaching settings. 1 Cr. F, S, SUM.

**349. Human Physiology**

Study of the basic systems of the human body and the mechanisms influencing them. Lecture and lab. Prereq.: 248 or 249. 3 Cr. F, S.

**355. Competitive Sports for Women**

Critical analysis of interscholastic and intercollegiate programs for girls and women. 2 Cr. S.

**358. Team Sports Teaching Techniques**

Techniques of advanced skills, methods of teaching. Prereq.: 101. 1 Cr. F, S.

**359. Techniques for Teaching Gymnastics**

Advanced skills and methods of teaching. Prereq.: 112. 1 Cr. F, S.

**360. Techniques for Teaching Track and Field**

Advanced skills and methods of teaching. Prereq.: 103 or permission of instructor. 1 Cr. F, S.

**366. Lifeguard Training**

Theory and practice in techniques of preventing water related accidents and management of aquatic facilities are identified in the American Red

Cross Lifeguard Training Course. Prereq.: Strong swimming ability. 2 Cr. DEMAND.

### 367. Teaching Swimming

Teaching techniques and methods of swimming and related aquatic skills in PreK-12 schools. Required for physical education teaching majors who do not have a current Water Safety Instructor Certification. Prereq.: 167. 1 Cr. F, S.

### 368. Water Safety Instruction

Instruction, methods and teaching techniques in swimming and related aquatic skills for certification in Red Cross Water Safety Instruction. Prereq.: strong, technically correct swimming strokes. 3 Cr. S.

### 369. Adapted Aquatics

Techniques and methods of teaching swimming designed for individuals with disabilities. Practical experience included. 2 Cr. S.

### 378. Individual and Dual Sports Teaching Techniques

Techniques of advanced skills, methods of teaching individual and dual sports. Prereq.: 104. 1 Cr. F, S.

### 398. Health and Physical Education for Elementary Teachers

Concepts, materials, programming and procedures related to teaching health and physical education to elementary children. 2 Cr. F, S, SUM.

### 405. Senior Seminar in Athletic Training

Dynamic trends in the field of athletic training/sports medicine, emphasizing prevention of adverse health conditions, sports trauma, management skills, and administration of athletic training programs. Prereq.: 304, 314, 315, 316. 3-4 Cr. Rotation: F, S, SUM.

### 432. Practicum I in Sports Management

Supervised experience in a recreational setting particular to the student's needs. Prereq.: 206, REC 415, 416, or consent of instructor. 2 Cr. DEMAND.

### 433. Practicum II in Sports Management

Supervised experience in an athletic setting particular to the student's needs. Prereq.: 206, 432; REC 415, 416, or consent of instructor. 2 Cr. DEMAND.

### 438. Practicum in Physical Education: Grades 7-12

Practical experience in regular physical education settings, grades 7 through 12. Minimum number of hours is 30. Prereq.: Permission of instructor. 1 Cr. DEMAND.

### 444. Internship in Athletic Training

Practical on-site clinical work experience for students in the athletic training emphasis of the PESS BA degree program. 4, 8, or 12 Cr. DEMAND.

### 452. Tests and Measurements in Physical Education

Evaluative tools and techniques unique to physical education activities. Laboratory exercises in selected tests and evaluative procedures. Prereq.: 349. 2 Cr. F, S.

### 490. Individual Research in Physical Education

Directed study in an approved emphasis area of the physical education major program. 1-2 Cr. DEMAND.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE COURSES

### 408/508. Philosophy of Sport

Objectives/values of sport in a contemporary society. 2 Cr. F, SUM.

### 411/511. Organization and Administration of Physical Education: Grades PreK-6

Program planning, curriculum development, and methodology. Prereq.: 131. 2 Cr. F, S, SUM.

### 423/523. Basic Electrocardiography

Study and measurement of the electrical activity associated with cardiac function. Prereq.: 349 or permission of instructor. 3 Cr. F.

### 425/525. Workshop in Track and Field

Uses a learn-by-doing approach to track and field activities. Special emphasis will be placed on biomechanical analysis of events as well as coaching and officials certification. 1 Cr. DEMAND.

### 430/530. Seminar: Topical

Selected topics in physical education. 1-3 Cr. May be repeated to maximum of 6 credits. DEMAND.

### 435/535. Theory of Dance

History, theory, and philosophy underlying dance from primitive times to the present. Prereq.: permission of instructor. 2 Cr. DEMAND.

### 439/539. 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.

### 445/545. 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.

### 448/548. 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.

### 449/549. Physiology of Exercise

A study of the physiological effects upon the human body. Lecture and lab. Prereq.: 349. 3 Cr. F, S.

### 453/553. 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.

### 456/556. Administration of Interscholastic Athletics

History and objectives of national, state and local control, and modern challenges in interscholastic athletic programs. 2 Cr. S, SUM.

### 461/561. 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.: 312 or consent of instructor. 3 Cr. S.

### 462/562. 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.

### 463/563. 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.

### 464/564. 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.

### 465/565. 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. S.

### 491/591. Psychology of Sport

Examining sport in terms of motivation, performance, and the relationship between sport and human development. 3 Undgr. Cr. 2 Gr. Cr. S.

## RECREATION (REC)

227 HALENBECK HALL/255-4251

*A program of the Department of Health, Physical Education, Recreation and Sport Science. Programs designed for students interested in pursuing professions in recreation administration and therapeutic recreation.*

### **BACHELOR OF SCIENCE – NON-TEACHING**

The B.S. program in recreation administration is primarily intended to prepare students for professional positions in recreation and leisure service agencies providing leisure opportunities to a variety of individuals. Students may enter the program after completing REC 133 or 12 credits of the core. Minimum scholarship requirements for admission is a grade point average of 2.5 in work taken at St. Cloud State University. Students are required to have a grade of "C" or better in all major courses.

#### **Recreation Administration**

##### **Major (40)**

REC 133, 233, 241, 333, 415, 416, 433, 441, 444; PESS 206. Select four credits from any academic area outside physical education activity classes with adviser's consent.

#### **Therapeutic Recreation Minor (26)**

PESS 248, 349; BIOL 307; APSY 262; PSY 492; REC 339, 340, 439, 440.

### **COURSE DESCRIPTIONS**

#### **112. Recreational Camping Skills**

General camping information and skills. Overnight camping experience. Not for recreation majors. 2 Cr. S.

#### **133. Introduction to Recreation**

Designed to explore the field of recreation including history and theories of professional organizations, characteristics of age groups and ability levels, and observations of recreational agencies. 3 Cr. F.

#### **212. Camp Counseling**

Types of camps, underlying philosophies, trends, camp standards, program planning, and cabin counseling. 2 Cr. S.

#### **213. Wilderness Survival Techniques**

Methods used to meet emergencies in the wilderness and how to survive with the least amount of physical and mental pain. 2 Cr. F.

#### **233. Recreation Program Planning and Leadership Theory**

Methods and guidelines for the development, organization and implementation of recreational programs and activities including professional leadership to implement programs, and the opportunity to design, lead and evaluate activities with recreational organization within the community. 3 Cr. S.

#### **241. Recreation Leadership Techniques**

Analysis of recreation leadership techniques, intervention, and styles with individuals and groups of different ages and ability levels. An emphasis will be placed on skill development through practical applications. 3 Cr. F.

#### **333. Recreational Facility Design and Management**

An insight into planning and management of various recreational facilities. Prereq.: 133. 3 Cr. S.

#### **339. Introduction to Therapeutic Recreation**

Principles, concepts, and historical development of therapeutic recreation and inclusionary services for individuals with disabilities including legislation, normalization, advocacy and models of service. 3 Cr. S, ALT.

#### **340. Therapeutic Recreation Assessment and Evaluation**

Principles, concepts and techniques of Therapeutic Recreation assessment, documentation, and evaluation in cognitive, social, psychomotor, affective and leisure domains in clinical, residential, and community settings. 3 Cr. F, ALT.

#### **433. Seminar: Recreation Administration and Leadership Theory**

Analysis of organizational and administration practices used in recreation programs and a discussion of the requirements, issues, and problems encountered in internship. 2 Cr. F.

#### **439. Therapeutic Recreation Principles and Procedures**

Provides a theoretical rationale for the development of therapeutic

recreation services with an emphasis on program design and procedures. Prereq.: 339. 3 Cr. S, ALT.

#### **440. Contemporary Issues for Therapeutic Recreation Practice**

Analysis of the role of therapeutic recreation specialist in healthcare systems. Legislation, certification and other issues and problems will be discussed. Prereq.: 339. 3 Cr. F, ALT.

#### **444. Senior Internship**

Practical on-the-job work experience involving the student in the operation and administration of agencies providing recreation programs and services. 12 Cr. F, S, SUM.

### **COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

#### **415/515. 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.

#### **416/516. 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.

#### **441/541. Outdoor Education**

Developments in outdoor education, instructional principles of outing activities and outdoor education program materials and methods. 2 Cr. F.

## **HISTORY (HIST)**

283 STEWART Hall/255-3165

*A program of the College of Social Sciences.*

**Chairperson** Don Hofsommer. **Faculty:** Hellwig, Hofsommer, R. Lewis, Medler, Nayenga, Pluth, Rothaus, Wolfer.

The Department of History believes the study of history has intrinsic value both as intellectual training and as a basic means of understanding human character. Our goals are to acquaint students with history as a discipline, to stimulate objective analysis of the past, to provide a broader perspective of the future, develop an understanding and appreciation of the nature of change and the diversity of the human experience, and offset parochialism and ethnocentrism through diverse course offerings.

The history department offers major and minor programs and provides background courses for the other humanities and social sciences and for area study and special programs.

The study of a foreign language is very important to the understanding of other cultures and frequently a requirement for graduate work in history.

Students interested in social studies programs with emphasis in history should refer to the programs listed in social studies.

### **BACHELOR OF ARTS**

#### **Major (42)**

A total of 42 history credits (24 required: 18 elective), of which at least 33 must be at the 200-level or above. A student must complete the following core requirements (24):

- a. U.S.: HIST 140 and 141 (6)
  - b. Western Civ I and II: HIST 210 and 211 (6)
  - c. Africa, Asia, Latin America or Middle East (6)
  - d. HIST 490, Craft of the Historian (3)
  - e. HIST 491, Senior Research Seminar (3)
- HIST electives (18)

Students are required to take either a minimum of 9 credits in a foreign language or a minor outside of history.

### Minor (30)<sup>1</sup>

A total of 30 history credits (21 required; 9 elective), of which at least 21 must be at the 200-level or above. A student must complete the following core requirements (21):

- a. U.S.: HIST 140 and 141 (6)
- b. Western Civ I and II: HIST 210 and 211 (6)
- c. Africa, Asia, Latin America or Middle East (6)
- d. HIST 490, Craft of the Historian (3)
- HIST electives (9)

### BACHELOR OF SCIENCE

SCSU offers a variety of majors that lead to social studies licensure in Minnesota.

The University's approved licensure program currently includes: ANTH 150; ECON 201; GEOG 253; HIST 285; POL 201; PSY 324; SOC 304; SSCI 104, 421; SST 453.

Many of these licensure courses as well as a number of the courses in the major can be used for general education credit.

Individuals who plan to seek this licensure should consult the social studies licensure coordinator in the College of Social Sciences immediately upon enrolling at SCSU or changing to this field to determine the current plan for the social studies licensure competencies to be developed and demonstrated. A 2.50 GPA overall is required for admission to the Bachelor of Science History and Social Studies-History emphasis programs in the Department of History.

The program is periodically reviewed and updated. Changes will be noted in the on-line catalog as they are approved. The social studies licensure coordinator will assist students with the changes.

<sup>1</sup>HIST 101, 105 and 106 courses cannot be used to fulfill requirements for the history major and minor in B.A. and B.S. programs and for social studies history emphasis major.

<sup>2</sup>Courses used for secondary social studies licensure may not be used as electives in either the history core or related fields.

### Major – Teaching (30)<sup>1</sup>

A total of 30 history credits (18 required; 12 elective), of which at least 24 must be at the 200-level or above. The student must complete the following requirements (18):

- a. U.S.: HIST 140, 141 (6)
- b. Western Civ I and II: HIST 210, 211 (6)
- c. Africa, Asia, Latin America, or Middle East (6)
- HIST electives (12)

### Minor (27)<sup>1</sup>

Social Studies licensure in Minnesota cannot be obtained solely on the basis of this minor.

The student must complete the following core requirements (18):

- a. U.S.: HIST 140, 141 (6)
- b. Western Civ I and II: HIST 210, 211 (6)
- c. Africa, Asia, Latin America, or Middle East (6)
- HIST electives (9)

### Social Studies Major – History Emphasis (30)<sup>1</sup>

History Core (24 credits, of which at least 18 must be at the 200-level or above):

- a. U.S.: HIST 140, 141 (6)
- b. Western Civ I and II: HIST 210, 211 (6)
- c. Africa, Asia, Latin America, or Middle East (6)
- HIST electives (6)

### Related Fields (6)<sup>2</sup>

- a. POL 111 (3)
- b. Elect one course from one of the departments below: (3)  
SOC/ANTH, ECON or GEOG

### Elementary Education Minor (18)<sup>1</sup>

The student must complete the following core requirements:

- a. U.S.: HIST 140, 141 (6)
- b. Western Civ I and II: HIST 210, 211 (6)
- c. Africa, Asia, Latin America or Middle East (6)

### Elementary Education Cognate (9)<sup>1</sup>

A student will select one course from each of the three groups below:

- a. U.S.: HIST 140, 141 (3)
- b. Western Civ I and II: HIST 210, 211 (3)
- c. Africa, Asia, Latin America or Middle East (3)

### BACHELOR OF ELECTIVE STUDIES

Students may present a self-selected pattern of courses to the department for an adviser-approved 36 Cr. major or 27 Cr. minor.

### Major (36)

Completion of 36 Cr. at least one-half of which must be at the 300- or 400-level.

### Minor (27)

Completion of 27 Cr. of which at least 12 Cr. must be at the 300- or 400-level.

### Internship Program

The internship program of the Department of History is designed to give competent, interested students an opportunity to participate in an approved off-campus learning and work situation which relates to the major. The program offers the student an opportunity to relate course work and major requirements to their application in the working world. See HIST 444 in the course listings. A maximum of three (3) credits may be applied to the elective credits needed in the major program. Any remaining credits apply as general electives toward graduation. Students interested in the internship program should contact the department as early as possible to apply for the program.

### COURSE DESCRIPTIONS

#### +101. Studies in World History

An interpretive study of general trends and selected topics in various periods and subjects that are cross-cultural, national, and regional in scope. May be repeated with different instructor and subject but not for general education purposes. 3 Cr. ANNUAL.

#### +105. Studies in U.S. History

An interpretive study of general trends and selected topics in social, cultural, political, and economic history. May be repeated with different instructor and subject but not for general education purposes. 3 Cr. ANNUAL.

#### +106. MGM Historical Studies

Studies in multicultural, women and minority history suitable for the MGM and/or general education requirement. May be repeated with different instructor and subject. 3 Cr. F, S.

#### +140. America to 1865

Interpretations of general trends and topics from colonization through the Civil War. 3 Cr. F, S.

#### +141. United States Since 1865

Interpretations of general trends and topics from reconstruction into the recent era. 3 Cr. F, S.

#### +150. Twentieth Century World

Analysis of major themes in 20th century world history, including revolution and social change, national liberation, global conflict, the western world, global economy and rise of the Pacific area. 3 Cr. ANNUAL.



**+210. Western Civilization I: Antiquity to 1500**

Evolution of Western civilization from the ancient Mediterranean world to the 1500s. 3 Cr. F, S.

**+211. Western Civilization II: 1500-Present**

Evolution of Western civilization from the Reformation to the present. 3 Cr. F, S.

**285. Concepts and Theories in History**

A study and analysis of the nature of history as a discipline. 3 Cr. F, S.

**336. England, 1485-1717**

Rise and fall of dynastic politics; growth of parliamentary influence; the basis for empire. 3 Cr. ALT.

**337. Modern Britain**

British history, 1717 to present. Development of the modern parliamentary system; old empires and new; industrial society and the modern world. Course offered at Alnwick program only. 3 Cr. DEMAND.

**338. Modern Germany**

Germany's rise from a nonpolitical entity to a modern state; emphasis on nationalism and militarism. 3 Cr. ALT.

**339. Modern France**

The revolution and Napoleon; institutional and cultural life in the nineteenth century; the maturing of the Republic. 3 Cr. ALT.

**345. American Economic**

Colonial times to present; transformation from an agricultural to an industrial economy. 3 Cr. ALT.

**346. Minnesota**

Survey of Minnesota history with emphasis on interpreting the state's

experience within a larger context. Indians, explorers, early settlements, state-making, agriculture, industry, transportation, politics. 3 Cr. F, S.

**347. American Urban History**

Urban America from colonial to modern times; the origin and growth of cities and their impact upon the development of the U.S. An elective for majors in Urban Studies. 3 Cr. F.

**349. Americans and Nature**

The interaction of Americans with their natural environment from early settlement into the twentieth century. 3 Cr. ALT.

**350. Black Americans**

African background, Western racism, slave systems, beginning of Black institutions, Black nationalism and protest, civil rights movements. 3 Cr. S.

**352. Native Americans**

Indian people in the U.S. from early man to modern times, Indian cultures, Indian-white relations, the Indian today. 3 Cr. S.

**354. Mexican-Americans**

Spanish and Indian backgrounds in Mexico; primary emphasis upon Mexican-Americans in the U.S. since 1848. 3 Cr. F.

**356. Women in History**

Study of women's roles in shaping societies and cultures of the past and their struggle to achieve equality with men. 3 Cr. F.

**357. Multicultural U.S. Women's History**

History of women in the United States from pre-European contact to the present, emphasis on cross-cultural comparisons of women of color and minorities. 3 Cr. S.

**358. Immigrant America, 1820's-1924**

Why people migrated, areas of settlement, contribution to American society, problems faced within the U.S. 3 Cr. ANNUAL.

**361. Latin America, 1492-1825**

Spanish and Portuguese colonial empires in America from their origins through the wars of independence. 3 Cr. F.

**362. Latin America Since 1825**

Development of the major Latin American countries since the wars of independence. 3 Cr. S.

**365. Traditional Asia**

A broad survey of Asian history to about 1600 A.D., focusing primarily on cultural and intellectual history of India, China, Japan, Korea, and Southeast Asia. 3 Cr. F, ALT.

**369. China Since 1800**

The modernization of China. Primary emphasis on political, social, and economic developments during the Manchu, Nationalist, and Communist periods. 3 Cr. S.

**370. Africa to 1500**

Origins of humans in Africa; Ancient African Kingdoms; Roman, Byzantine and Islamic influences up to the coming of the Portuguese. 3 Cr. F.

**371. Africa Since 1500**

African reactions to European discovery, settlement, and colonial domination; European colonial regions to the advent of African self-rule. 3 Cr. S.

**380. Topics in History**

An interpretive study of selected topics in history. May be repeated with different subject to a max. of 9 Cr. 3 Cr. DEMAND.

**444. Internship**

Participation as an intern in history with a cooperating historical, government, business, or civic organization whose intern program has been approved in advance by the department. 1-9 Cr. DEMAND.

**490. Craft of the Historian**

Historiography, critical evaluation of sources, and methods of historical research. Required of all BA history majors. Must be taken prior to HIST 491. 3 Cr. F.

**491. Senior Research Seminar**

Research on a specialized historical topic culminating in a seminar paper. Required of all BA history majors. Prereq.: 490. 3 Cr. S.



**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

*Graduate students will be expected to do additional readings and/or longer papers and will be evaluated on a higher standard.*

**402/502. The Middle East**

The rise and development of medieval Islamic civilization; the Middle East under the Ottomans; the recent age. 3 Cr. ALT.

**403/503. 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.

**404/504. The Renaissance, 1300-1500**

Growth of the secular spirit and state; rise of humanism; social and economic forces; beginning of European expansion; the dawn of modern science. 3 Cr. ANNUAL.

**405/505. The Reformation, 1500-1648**

Protestant and Catholic Reformations; religious wars, rise of the modern state, modern culture and capitalism. 3 Cr. ANNUAL.

**408/508. 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.

**409/509. 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.

**412/512. History of Technology to 1750**

Examine the impact of technology on the growth and demise of classical cultures with an emphasis on western civilization. The time/space relationship of human identity will be chronologically studied. 3 Cr. DEMAND.

**414/514. History of American Technology**

Examine from the historical perspective the changes technology has brought to American life. Topics considered will be the history of machine-made products, transportation, communication, munitions, urbanization, the concept of work, the roles of men and women, and the pursuit of leisure. 3 Cr. DEMAND.

**418/518. 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.

**420/520. Colonial America, 1607-1763**

Indian experience; European colonial economy and society. 3 Cr. F, ALT.

**421/521. Revolutionary America, 1763-1791**

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.

**423/523. Civil War and Reconstruction U.S. 1848-1877**

Sectionalism, disunion and war; the Confederacy, reunion and reaction. 3 Cr. ANNUAL.

**425/525. 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.

**426/526. United States Since 1945**

Economic, political, and social development of the United States since World War II. 3 Cr. S.

**433/533. Russia, 1700-1917**

Politics, diplomacy, society, economics, and culture from Peter the Great to the Revolution. 3 Cr. S, ALT.

**434/534. Soviet Russia Since 1917**

Historical survey of politics, society, economics, and culture. 3 Cr. S.

**445/545. United States Military History**

Military problems and accomplishments from 1775 to the present. 3 Cr. DEMAND.

**448/548. 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.

**451/551. 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.

**456/556. 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.

**458/558. The American West**

Topical and chronological consideration of western land policy, territorial government, Indian policy, economic development. 3 Cr. S, ALT.

**463/563. U.S. Latin American Relations**

General trends with emphasis on specific relations with selected Latin American countries or regions. 3 Cr. DEMAND.

**467/567. Modern Japan**

Japanese history, 1800-present, emphasizing political developments, social and economic change, culture and intellectual achievements. 3 Cr. F.

**473/573. Historiography**

Reading and discussion of historians and historical interpretation. 3 Cr. F.

**478/578. 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.

**480/580. Seminar in American History**

Intensive reading and research in one area or topic of U.S. or Latin American history. Limited to senior or graduate students. 3 Cr. May be repeated with different topics. Max. 9 Cr. ANNUAL.

**483/583. Seminar in European History**

Bibliographical study, research, and discussion of a selected topic. Limited to senior or graduate students. 3 Cr. May be repeated with different topic. Max. 9 Cr. ALT.

**486/586. Seminar in Africa, Asia, or Middle East**

Reading and research on a selected topic. Limited to senior or graduate students. 3 Cr. May be repeated with different topics. Max. 9 Cr. DEMAND.

**HUMAN RELATIONS AND MULTICULTURAL EDUCATION (HURL)**

B118 EDUCATION BUILDING/255-3124

**Chairperson** Sudie Hofmann. **Faculty:** Andrzejewski, Hakim, Hofmann, Kellogg, Tademe, M. 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 offers a

baccalaureate minor, general education, MGM, and teacher licensure courses. An interdisciplinary Master of Science in Social Responsibility is offered by Human Relations, Sociology, American Studies and Women's Studies. These programs 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) offers a baccalaureate minor; (2) collaboratively offers an interdisciplinary Master's of Science in Social Responsibility; (3) provides quality courses that fulfill the human relations certification for teacher licensure in the State of Minnesota; (4) provides courses, resources, and leadership in meeting the SCSU mission and various accreditation standards on multicultural, gender-fair, disability-aware, GLBT-sensitive education; (5) provides courses for other liberal arts and professional majors and minors; (6) provides MGM, general education courses for all St. Cloud State University students on social and environmental justice, and skills in social responsibility.

The 16 credit minor is designed as a short or second minor; the 24 credit minor provides an option for those desiring more extensive study. Both minors are available to individuals in all degree programs. NOTE: HURL 491/492 should be taken near the end of the program.

## BACHELOR OF ARTS AND BACHELOR OF SCIENCE

### Minor (24)

HURL 201, 206, 301, 491, 492; Choice of 14 credits from at least 4 categories listed below. New courses may be added with the approval of the HURL adviser. Up to 6 credits of HURL 402 and 6 credits of internship may be counted toward the minor.

### Minor (16)

HURL 201, 206, 301, 491, 492; Choice of 6 credits from at least 2 categories listed below. New courses may be added with the approval of the HURL adviser. Up to 3 credits of internship may be counted toward the minor.

## BACHELOR OF ELECTIVE STUDIES

### Minor (24)

HURL 201, 206, 301, 491, 492; Choice of 14 credits from any category.

### Categories:

Additional courses may be counted in these categories in consultation with an adviser.

#### Gender and women's issues:

HURL 406, 414; WS 201, 415; MINS 405; PSY 275; PE 140

#### Race, ethnicity & national origin issues:

HURL 407, 410; MINS 201, 405; SOC 268; SPC 375

#### Overview courses:

HURL 413, 415; HURL/COMM 416; SW 345

Age, disability, GLBT issues: HURL 409, 411, 412

#### Global and class issues:

HURL 408, 410; SOC 261, 481

#### Applied courses:

HURL 101, 406; SW 360; SOC 303

## COURSE DESCRIPTIONS

### +101. Human Relations, Harassment & Personal Behavior (MGM)

Introduction to legal, institutional and interpersonal issues related to disrespectful behaviors, harassment, hate crimes and discrimination based on gender, race, national origin, religion, disability, sexual orientation and class and an exploration of personal behavior in relation to these issues. 3 Cr. F, S, SUM.

### +201. Non-Oppressive Relationships (MGM)

Development of practical skills for eliminating racism, sexism, and

other oppressive elements from personal, professional, and public life. 3 Cr. F, S, SUM.

### +206. Understanding Oppression (MGM)

Consultants from oppressed groups will share expertise on various contemporary human relations issues (racism, sexism, disabilities, poverty, religious oppression, homophobia, etc.) 1 Cr. F, S, SUM.

### 301. Non-Oppressive Relationships II

Recognizing and understanding oppression based on disability, class, appearance, age, country of origin and religion. Further examination of model used in HURL 201. Prereq.: 201. 2 Cr. F, S, SUM.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 402/502. Current Issues in Human Relations

Analysis of issues or problem areas in human relations. A specific topic will be selected each time the course is offered. May be repeated to a maximum of 6 credits. 1-3 Cr. DEMAND.

### 406/506. 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. Prereq.: 201 or 497. 3 Cr. F, SUM.

### 407/507. American Indians and Contemporary Human Rights

Analysis of the factors that lead to the current social, political, and economic status of American Indians. Prereq.: 201 or 497. 2 Cr. S.

### 408/508. Global Human Relations

A global analysis of racism, sexism, heterosexism, class issues, and the interrelationships of global social justice issues. Prereq.: 201 or 497. 2 Cr. F.

### 409/509. Ageism

Analysis of how cultural standards and institutional practices lead to the oppression of people in this society based on age. Prereq.: 201 or 497. 2 Cr. SUM.

### 410/510. 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. Prereq.: 201 or 497. 2 Cr. F, S.

### 411/511. Heterosexism

Study of institutionalized heterosexism and homophobia and the impact on lesbian/gay and heterosexual people. Prereq.: 201 or 497. 2 Cr. S.

### 412/512. 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. Prereq.: 201 or 497. 2 Cr. S.

### 413/513. 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. Prereq.: 201 or 497. 2 Cr. F, S, SUM.

### 414/514. 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.: 201 or 497. 2 Cr. SUM.

### 415/515. 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. Prereq.: 201 or 497. 2 Cr. F.

### 416/516. 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. Prereq.: 201 or 497. 3 Cr. S.

**491/591. Change Agent Skills**

Study of the theories of social empowerment and the development of practical skills for producing institutional and personal change. Prereq.: 201 or 497. 3 Cr. F, S, SUM.

**492/592. Practicum in Social Empowerment**

Experiential practicum. Application of theory and research to constructive institutional and social change. 1-3 Cr. F, S, SUM.

**497/597. 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.

## INFORMATION MEDIA (IM)

**Director** Kristi Tornquist. **Faculty:** Ewing, Fields, Hauptman, Hedin, F. Hill, Hites, C. Inkster, H. Jensen, Josephson, Jurgens, Keable, P. Lacroix, Lee, Lockway, Miyagishima, Motin, J.M. Nelson, Pehler, Polesak, Rotto, Rude, Stachowski, M. Thompson, Thoms, Tornquist, S. Q. Williams

The IM major, minor and certificate programs provide critical skills for the Information Age. Employers need people who can analyze problems, access information, validate, select, organize and present information. Information Media incorporates all of these competencies powerfully and effectively in its Information Media major, minor and Instructional Technology certificate. Encompassed in the major, minor and certificate programs are competency development in the theory and practice of education and information technology, instructional systems design, librarianship, and message design and delivery. In addition to the major, minor and certificate programs, the information media general education courses are available to all students interested in using newer technologies of learning.

### BACHELOR OF SCIENCE

**Information Media Major (36 Credits)**

The Information Media major is designed to provide skills needed to prepare students for service within an information-dependent, global society. Required: (18) IM 104 or 204, 245 or 260, 320, 404, 454, and 455. Electives: (18 in consultation with adviser) IM 421, 442, 444, 445, 452, 456, 462, 469, and 486.

### BACHELOR OF ARTS AND BACHELOR OF SCIENCE

**Information Media Minor (18 or 24)**

This minor complements many majors--mass communications, education, art business, English, history, music, and speech communications. Required: (12) IM 104 or 204, 245 or 260, 454, and 455. Electives: (6 or 12) any 200, 300, or 400 level Information Media course with the approval of the minor adviser.

### BACHELOR OF ELECTIVE STUDIES

**Information Media Minor (24)**

The Information Media minor complements the bachelors of elective studies students giving an edge in the marketplace where skills in information technology, information management, and tools of information are an increasingly important component. Completion of 24 semester hours credits with the approval of the minor adviser.

### Instructional Technology Certificate (12)

Application for the certificate must be made to the Center for Information Media Office in CH-214. Contact the department for more details at 320-255-2062.

Required: IM 245 or 260, 421 or 469, 454, and 455.

### COURSE DESCRIPTIONS

**+104. Information Quest**

Basic research skills in accessing, evaluating, organizing, and applying information acquisition through systems including library collections, networks, and multimedia. 3 Cr. F, S.

**+204. Research Strategies (MGM)**

Examines basic university-level research while utilizing multicultural, gender, and minority content and issues in library Learning Resources. 3 Cr. F, S.

**245. Microcomputers in Classrooms and Media Centers**

Instructional applications of microcomputers in educational settings. Survey of available hardware, software, and related instructional materials for use by classroom teachers. 3 Cr. F, S.

**+260. Exploring Information Technologies**

Examination of technologies used by individuals for learning, information access and communication in the electronic age. Applications and utilization of new information technologies: world wide information networks, interactive systems, computer-based learning. 3 Cr. F, S.

**320. Information Technologies and Cultural Relevance**

This course is designed to explore the relationship of culture to information technologies and develop skills to assess information needs, access global information, obtain, analyze data using information technologies. Prereq.: 104 or 204. 3 Cr. S.

**444. Internship In Media**

Intern experiences relating to media in all its practical facets. 1-3 Cr. F, S, SUM.

**469. Training and Media Management**

Study of training, media, and human resource development and management: divisions, organizations, professionals, media, and literature. 3 Cr. F.

**486. 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 ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 404/504. Instructional Design I.

Introduction to instructional design, including theoretical background, needs assessment, learner analysis and instructional strategies. 3 Cr. F, SUM.

### 421/521. 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.

### 442/542. 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 maximum of 3 credits. 1 Cr. DEMAND.

### 445/545. 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.

### 452/552. 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.

### 454/554. 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.

### 455/555. Design and Preparation of Multimedia Presentations I.

Design and production of multimedia instructional support materials. Lab. Prereq.: 454. 3 Cr. F, SUM.

### 456/556. 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. 3 Cr. S, SUM.

### 462/562. 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.

Required (18): MKGB 416, MGMT 470, FIRE 473, ECON 474, ACCT 493; MGMT 479 or MKGB 418.

Electives (9): POL 251; ANTH 267; GEOG 271; INTL 290; ECON 350, 360; SPC 332; POL 451; ANTH 384; GEOG 486; MKGB 437; PHIL 369; Internship 444; INTR 301.

Also, select special emphasis (12 credits) by taking 6 credits from one of the functional areas and 6 credits from one of the regional areas listed below.

### Functional Area (6 credits from a line).

Accounting: ACCT 371, 482, 487  
Finance: FIRE 373, 471, 472  
Management: MGMT 352, 365, 467  
Marketing: MKGB 321, 322, 417, 429  
BCIS: 341, 350, 451

### Regional Area Emphasis (6 credits from a line)

Africa: HIST 371, SPC 432, ANTH 357, ANTH 468  
Asia: GEOG 269, POL 336, HIST 369, HIST 467, SPC 335, ANTH 356  
Eastern Europe: POL 332, POL 338, GEOG 278, HIST 434  
Latin America: GEOG 277, POL 333, HIST 362, GEOG 373, ANTH 355  
The Middle East: HIST 402, POL 334, GEOG 368, SOC 468  
Western Europe: POL 331, GEOG 374, GEOG 384, HIST 337, HIST 338, HIST 339

The international business major requires certification of a threshold level of competence in one foreign language. This level normally can be attained by satisfactorily completing one year of 200-level sequence of courses or by passing an examination administered through the foreign languages and literature department, which will provide a certification of competence to the records office prior to graduation.

### International Business Minor

Minors are available to both students in nonbusiness and business majors. In addition to taking international business and other business courses, students will complete some language and cultural coursework.

### For Business Majors (24)

Required (18): MKGB 416, MGMT 470, FIRE 473, ECON 474, ACCT 493, MGMT 479, or MKGB 418  
Elective (6): ANTH 267, SPC 332, POL 251, ECON 360, GEOG 271, INTR 290

### For Nonbusiness Majors (30)

Required (30): ACCT 291, FIRE 371, ECON 360 or 474, MKGB 235, MKGB 320, MKGB 416, MGMT 301, MGMT 470, FIRE 473, MGMT 479 or MKGB 418

A person taking an international business minor must take one (4 credit) course in a foreign language at the 200-level.

### International Business Concentration

The concentration is available to students who are pursuing business majors. Students will complete international business courses in addition to their business major requirements.

Elective (9): MKGB 416, MGMT 470, FIRE 473, ACCT 493.

A student cannot take a course from above if it is within student's major area of study.

## INTERNATIONAL BUSINESS

### BUSINESS BUILDING

Also see *College of Business descriptions and requirements*.

**Faculty:** A. Hanafy, Song, Sundby, J. Vora, Yook.

There is a need, both domestic and worldwide, for people equipped to deal with international business activities in private as well as government sectors. The international business programs prepare the graduate to be effective in modern organizations.

### International Business Major (39)

A major in international business includes the business core (40 Cr.) plus a strong background in international business, a cultural emphasis, specialization in a functional area and a regional area (39 Cr.), as well as competency in a foreign language. The program is planned for students who intend to qualify for career opportunities in international business.

## INTERNATIONAL RELATIONS PROGRAM

329 BROWN HALL/255-2035

*A program of the Department of Political Science. Also see College of Social Sciences description and requirements.*

**Faculty committee:** Director and Adviser Michael Gold-Biss. Members: Addicott, Ahmed, Argiros, E. Davis, Gold-Biss, A. Hanafy, Haniff, Hellwig, Jones, Karian, Larkin, Lavenda, R. Lewis, Lockway, O'Toole, Partridge, Ringer, J. Robinson, VanBuren, Wölfer.

International relations is the cross-disciplinary study of the behavior of nations, states, and other international actors (e.g. international governmental and non-governmental organizations and regimes). It examines their relationships with one another, their conflicts, and their attempts at collective efforts for global order. The major provides a theoretical and applied understanding of global actors and their activities. In addition, it provides an opportunity to cultivate an awareness of the diversity and interdependence of the international community. The courses included in the program are drawn from several departments and colleges of the university. They aim to provide an integrated study of the global society and diverse perspectives on the human condition. The primary objective of the program is to offer an opportunity for students to become knowledgeable in international affairs, while obtaining a solid liberal arts education. The minor offers a more limited, but still cross-disciplinary exposure to the actors and issues in international affairs.

In order to be admitted into the major, a student must already have completed ENGL 101, SPC 102, and POL 251 with a "C" or better in each course. The student must also submit a transcript or course summary. See the Department of Political Science for instructions on the application process. The department strongly advises that the student enroll in the major no later than the first semester of the junior year. The department expects transfer students to make application as soon as is possible, after admission to the university. After the student acquires a specified number of credits, the university prohibits advanced registration without admission to a major. The department strongly recommends that in order to fully benefit from the major and minor, students take courses in a proper sequence. Many upper level courses in the major are offered only in alternate years. Students can avail themselves of an optional internship experience subject to the approval of the International Relations Program Adviser. Internship requirements, including prerequisites, should be obtained from the department by the student when applying for the major.

A student may apply to the political science department chairperson to pursue the international relations honors program. Upon successful completion of this process, a notation of departmental honors will appear on the student's transcript at graduation. See the Political Science program description for honors requirements.

### BACHELOR OF ARTS Major (60 Credits)

#### Requirements:

1. Regional Concentration (18 crs.)  
(12 credits or four courses must come from the different disciplines represented).

Students participating in a study abroad program can apply relevant courses with permission of the International Relations Program Adviser (up to 12 credits). Regional concentrations can be completed in one of the areas found below, based on courses found in the disciplines of Geography, History, Political Science, and Anthropology/Sociology, and Area Studies; however, the minimum of credits noted per discipline

must still be met. If students wish to combine different specializations they can do so with permission of the International Relations Adviser.

- a. *Americas (North, Central and South America):*  
GEOG 277, 373; HIST 345, 361, 362, 414, 448, 456, 463, 480\*; POL 316, 339, 351; ANTH 355, 384; SOC 468; SPC 334; LAST 250, 350; SSCI 470\*
- b. *Europe/Russia:*  
GEOG 374, 378; HIST 337, 338, 339, 408, 409, 433, 434, 483; POL 331, 332, 338; ANTH 384; SOC 468; SOV 410; SSCI 470\*
- c. *Africa/Middle East:*  
GEOG 368; HIST 370, 371, 402, 486; POL 334; SOC 468; AFST 250, 370; SSCI 470\*
- d. *Asia:*  
GEOG 269; HIST: 365, 369, 486; POL 316, 336; ANTH 356, 384; SOC 468; SPC 334; EAST 363, 364; SSCI 470\*

2. Four semesters of the same foreign language or proficiency through examination.

3. Students can avail themselves of an optional internship experience subject to the approval of the International Relations Program Adviser (3-12 credits, only 3 credits count towards major).

#### Required Core (21):

POL 251, 337, 353, 454; ECON 205, 206, 474. The capstone course for this major is POL 454 and must be taken during the senior year.

#### Electives (39 credits)

##### A. Economics/Business (6 credits)

ECON 350, 360, 478, 480\*, 483; MKGB 427; MGMT 470

##### B. Geography (6 credits)

GEOG 269, 270, 271, 277, 368, 373, 374, 378

##### C. History (9 credits)

HIST 337, 338, 339, 345, 361, 362, 365, 369, 370, 371, 402, 408, 409, 414, 433, 434, 448, 456, 463, 467, 480\*, 483, 486

##### D. Political Science (6 credits)

POL 316, 331, 332, 333, 334, 336, 338, 339, 351, 444\*, 451, 452

##### E. Anthropology/sociology (6 credits)

ANTH 267, 305, 355, 356, 384; SOC 445; 456, 460, 468\*, 474\*

##### F. English (3 credits)

ENGL 331, 338, 339

##### G. Functional Electives (3 credits)

COMM 429; 430, 431; POL 201; SPC 332, 335, 432

##### H. Area studies

(may substitute up to 6 credits for courses in GEOG, HIST, or POL with permission of the International Relations adviser.) AFST 250, 370; EAST 363, 364; LAST 250, 350; SOV 100, 410; SSCI 470\*

Students must take ENGL 191, SPC 192, and POL 251 to be admitted to the major.

#### Minor (24)

Required Core (12 credits) POL 251, 337, 353, 454

Electives: 12 credits or four courses; at least 9 credits or three courses must come from different disciplines represented below.\*

##### A. Economics/Business:

ECON 350, 360, 474, 478, 480\*, 483; MKGB 427; MGMT 470

##### B. Geography:

GEOG 269, 270, 271, 277, 368, 373, 374, 378

##### C. History:

HIST 337, 338, 339, 345, 361, 362, 365, 369, 370, 371, 402, 408, 409, 414, 433, 434, 448, 456, 463, 467, 480\*, 483, 486

##### D. Political Science:

POL 316, 331, 332, 333, 334, 336, 338; 339, 351, 444\*, 451, 452



**E. Anthropology/Sociology:**

ANTH 267, 305, 355, 356, 384; SOC 445\*, 456, 460, 468\*, 474\*

**F. Functional Electives:**

COMM 429\*, 430, 431; POL 201; SPC 332, 335, 432

**G. Area Studies**

(May substitute up to 3 credits for courses in GEOG, HIST, or POL with permission of International Relations adviser). AFST 250, 370; EAST 363, 364; LAST 250, 350; SOV 100, 410, SSCI 470\*

Students must take POL 251 and one additional course counting in the minor before being admitted to the minor.

Students participating in a study abroad program can apply all relevant courses with the permission of the International Relations Adviser.

All course work must receive at least a "C" to count towards the major or minor.

\*Permission of International Relations Program Adviser required

<sup>1</sup>Prerequisite: ECON 205 and 206

<sup>2</sup>Prerequisite: MKGB 320

<sup>3</sup>3-12 credits, only 3 count toward major or minor

<sup>4</sup>Prerequisite: SOC 160

<sup>5</sup>Prerequisite: SOC 268 or MINS 201 or HURL 201

<sup>6</sup>Prerequisites: COMM 432 and either 434 or 386, or consent of instructor.

## **LATIN AMERICAN STUDIES (LAST)**

*A program of the Department of Sociology and Anthropology. Also see College of Social Sciences descriptions and requirements.*

**Director** Robert Lavenda. **Program Adviser:** David Hellwig. **Faculty Committee:** Addicott, E. Carter, E. Davis, Gold-Biss, Hellwig, Karian, R. Lane, Larkin, Lavenda, Mills-Novoa, O'Neill, Roman-Morales, S. Ross, Saltz, Van Buren.

Students who are interested in the Costa Rica program, the major, or the minor are encouraged to consult with Robert Lavenda, 213B Stewart Hall, Michael Gold-Biss, 315 Brown Hall, or David Hellwig, 282 Stewart Hall, as soon as possible.

### **BACHELOR OF ARTS**

#### **Major (36)**

Required (18): LAST 250; GEOG 277, 373; HIST 361, 362; ECON 480 or POL 333 Electives (18): ECON 350, 480; HIST 354, 463; LAST 350, 370; POL 333; SPAN 341, 411 (Spanish-American only), 437, 438, 439; Independent Study 199-499 (maximum 6 credits). Up to 6 credits of seminar/topics/problems/field study or new courses in various departments which have a substantial Latin American content also may be used with the permission of the adviser.

Students who have participated in SCSU's Costa Rica Program may use a maximum of 9 credits of non-Spanish language courses and 3 credits of SPAN 460 completed in Costa Rica toward the major. Language Competency: Completion of a year of 200 level course work or the equivalent in Spanish or Portuguese.

#### **Minor (27)**

Required (12): LAST 250; GEOG 277 or 373; HIST 361 or 362; ECON 480 or POL 333. Electives (15): Select among the required or elective classes in the major. Students who have participated in SCSU's Costa Rica Program may use a maximum of 6 credits of non-Spanish language courses and 3 credits of SPAN 460 (Study Abroad) completed in Costa Rica toward the minor. LAST minors are encouraged to include some study of Spanish or Portuguese in their academic programs.

## **COURSE DESCRIPTIONS**

### **+250. Introduction to Latin America (MGM)**

The Latin American experience: geography, sociology, anthropology, history, economics, political science, and literature. 3 Cr. F, S.

### **+350. Minorities in Latin America (MGM)**

Minorities in contemporary Latin America, principally Afro-Americans and Amerindians. 3 Cr. ALT.

### **370. Contemporary Issues in Central America**

Social, economic, political, environmental, and international issues facing one or more Central American republics. Prereq.: 250 or junior status or consent of instructor. 3 Cr. S.

## **LOCAL AND URBAN AFFAIRS (URB)**

333 STEWART HALL/255-3184

*A program of the Center for Community Studies. Also see College of Social Sciences descriptions and requirements.*

**Director:** Kent Robertson. **Faculty committee:** Addicott, Argiros, Hampton, Mehrhoff, Morgan, Robertson.

Using the approaches and theories of many academic disciplines and professional fields found on campus, the Local and Urban Affairs program addresses:

- a. The nature of cities, suburbs, and small towns, emphasizing their history, geographic characteristics, economic and social structure, and cultural features;
- b. The problems and issues presently confronting communities, such as economic redevelopment, historical preservation, poverty, housing, community development, transportation, and the physical environment, to name but a few; and
- c. Possible solutions which may serve to rectify these problems, which may combine aspects of urban and regional planning, law, urban design/architecture, federal and local policies, social work and community organization.

The program contains a number of noteworthy features. First, it is a deliberate and consciously interdisciplinary program. To fulfill the requirements of the major, students are exposed to course work throughout the university. Second, the program is individually catered to the needs and interests of each student. Through close interaction with the program director, a program schedule is designed which allows flexibility in course selection and internship placement. Third, every student is required to complete a full-semester internship. The placement is designed to meet the student's career goals and personal interests. Recent internship placements have included housing and redevelopment authorities, city and county planning agencies, main street programs, transportation commissions, environmental agencies, non-profit service organizations, community development agencies, and parks departments, among many others. Finally, the program combines the educational benefits of a broad-based liberal arts curriculum with a pre-professional career-oriented major. Within the requirements listed below, students may choose to select an area of emphasis within the field. Some of the areas a student might choose from include:

- ▼ City and regional planning
- ▼ Environmental management
- ▼ Transportation
- ▼ Community development
- ▼ Housing
- ▼ Urban design
- ▼ Social services
- ▼ Downtown development
- ▼ Neighborhood organization

It is strongly urged that students consult the program director before taking local and urban affairs course work.

**Admission requirements for students declaring a BA major or minor in local and urban affairs. To be admitted to the major/minor, a student must:**

- ▼ Have earned at least 15 total credits overall, 9 of which must be from St. Cloud State University
- ▼ Have achieved an overall GPA at least 2.55 at SCSU; and
- ▼ Have earned a "B" or higher in URB 200 (if course is repeated-including withdrawals; the second attempt must be from a different instructor).

## BACHELOR OF ARTS

### Major (51)

Core (42) courses required of all majors:

URB 200, 350 (6 cr.), 402 (12 cr.), 404; CS 333; ENGL 339; ECON 365, 461, or 465; GEOG 394; POL 380 or MGMT 361; SPC 220, 226, or 326

Electives (9): Courses must be selected from at least two different departments: AMST 450, 470; CS 455, 466; ENV 210; FIRE 378; GEOG 316, 454, 457, 490; GERO 411, 440 (housing); HIST 347; POL 313, 481; PSY 373; SOC 304, 370, 468; SW 360; URB 403.

*Note:*

*Up to 9 credits can be double counted with another major/minor.*

### Minor (21)

Core (12):

URB 200, 350; ECON 365, 461, or 465; GEOG 394

Electives (9): Courses must be selected from at least two different departments: AMST 450, 470; CS 455, 466; GEOG 454, 457; GERO 440 (housing); HIST 347; POL 313, 380; SOC 370; URB 350

*Note:*

*Up to 6 credits can be double counted with another major/minor.*

## BACHELOR OF ELECTIVE STUDIES

### Major (36)

Completion of 36 credits with the prior approval of the program director.

## COURSE DESCRIPTIONS

### +200. Introduction to Local and Urban Affairs

Explores the social, economic, historical, and architectural dimensions of cities, towns, and suburbs. Focus is on community problems and issues nationwide and in Minnesota. 3 Cr. F; S.

### 350. Contemporary Urban Issues Seminar

Focuses on a specific topic or issue (i.e., transportation, housing) important in local and urban affairs. May be repeated. Prereq.: 200 or consent of instructor. 3 Cr. F; S.

### 402. Internship

Students will be placed on a full-time basis with a public, private, or non-profit organization, participating in research, planning, public meetings, analysis, and decision-making. By permission only. 12 Cr. F; S.

### 403. Field Research

Working closely with a faculty member, students design and implement an independent research project. Permits the student to refine their research and writing skills, and enables them to establish professional contacts. By permission only. 3 Cr. F; S.

### 404. Colloquium

An interdisciplinary senior-level seminar to help students synthesize various concepts, skills, and field experience. Helps students to create a clear, individualized career development strategy. By Permission only. 3 Cr. F; S.

*Prerequisites to ECON 365, 461, 465; POL 313; and SOC 370 are not required for declared URB majors/minors. However, students must consult with program director first.*

## MANAGEMENT (MGMT)

104 BUSINESS BUILDING/255-3225

*Also see College of Business descriptions and requirements.*

**Chairperson** Michael J. Pesch. **Faculty:** Ahmad, Davis, Eagle, Haugen, Orensteen, Pesch, Polley, Rhee, Roth, Sebastian, Skalbeck, Tallent, J.Vora, Ward

The management major introduces the student to the dynamics and challenges of getting things done through and with other people in manufacturing and/or services, whether public or private, in small, medium, and large size organizations. Students learn about the concepts of management and the skills required in managerial functions to coordinate the activities of a business toward its mission and objectives. Areas of emphasis include: general management, human resource management and operations management. Official concentrations are designated for operations management and human resource management.

A 2.65 GPA is required for all students seeking a major or minor in the College of Business.

## BACHELOR OF SCIENCE

### Majors (36)

The management major consists of the Business core of 40 credits plus the management core of 12 credits (MGMT 352, 365, 467, and 470) plus 12 credits from the following list of elective courses: FIRE 475, 480; MGMT 364, 368, 444, 450, 451, 452, 453, 459, 462, 466, 479, 483, 484, 485, 486, 498; MKGB 436, 438; APSY 474; ECON 471, 474, 477; FIRE 373, 375, 378, 386, 474, 476, 479; IM 469; PSY 270, 360, 469; SOC 365, 456; SPC 213, 332, 341.

### Human Resource Concentration

The concentration is available to students who are pursuing the management major or management minor. To earn the concentration, the 12 credits of elective coursework for the management major will be completed by taking the following courses: Required (12) MGMT 450, 451, 452, 459. Students are required to complete the management major core and the business core. It is recommended that students in the human resource concentration take an internship in this area during their senior year.

### Operations Management Concentration

The concentration is available to students who are pursuing the management major or management minor. To earn the concentration, the credits of elective coursework for the management major will be completed by taking the following courses: Required (12) MGMT 483, 484, 485, 486. Students are required to complete the management major, including the business core. It is recommended that students in the operations management concentration take an internship in this area during their senior year.

### Management Minor (24)

ACCT 291; MGMT 301; MKGB 235, 320 and four (4) 300-400 level courses selected from the approved MGMT electives. At least 3 of the courses must be from the MGMT department and all 4 electives must be from the College of Business.

## Notes:

1. Non-business majors who choose to minor in business may take no more than 30 credits of their total university coursework in the College of Business.
2. Selected management courses are an integral part of the international business program described in this bulletin.
3. Only students admitted to a business major or minor program and who have completed 60 semester credits (junior standing) may enroll in 300- and 400-level courses. Management department permission required for all other students.
4. Business students should consult their adviser before enrolling for 260 and 261 due to the 50% rule.

## COURSE DESCRIPTIONS

**+260. Principles of International Business**

International business and the challenges facing multinational corporations. 3 Cr. S.

**+261. The Big Picture: Management's Perspective**

Business-related contemporary films are used to introduce, study, and analyze management issues and problems in a variety of settings. 3 Cr. F.

**301. Introduction to Professional Management**

Professional management in the 20th century. Human resource management, operations management, organization behavior and theory, and strategic decision responsibility. 3 Cr. F, S, SUM.

**352. Survey of Human Resource Management**

The acquisition and utilization of human resources, developing desirable working relationships, and integrating the workers with organizational goals, within the contemporary legal and societal framework. Prereq.: 301 or permission of department. 3 Cr. F, S, SUM.

**364. Entrepreneurship-Starting your Own Business**

Planning, initiating and developing a business plan which considers the problems, risks and opportunities associated with new business ventures. 3 Cr. S.

**365. Organizational Behavior**

Individual and interpersonal behavior, group dynamics and structure, intergroup processes, and leadership within organizational contexts. 3 Cr. F, S, SUM.

**368. Business and Society**

The role of business, its interaction with the forces in its surroundings, and issues between business and society. 3 Cr. F

**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.

**444. Internship in Business**

A full-time paid position with a cooperating business, governmental, or civic organization. Three credits apply to the major program electives, balance apply to university electives. Prior approval of program required. Permission of department. 3-15 Cr. F, S, SUM.

**462. Small Business Management**

Management challenges, responsibilities, and rewards of operating and growing a small business. 3 Cr. F

**495. Strategic Management**

Capstone course that critically assesses global, domestic, and industry trends, organizational competency, values, and culture. Examination of stakeholders and corporate responsibility in developing strategic direction and plans of action. (Open only to graduating business seniors)\* 3 Cr. F, S, SUM.

*\*Business majors only may enroll in MGMT 495 in the last semester of their program. All College of Business core requirements must have been completed or special permission obtained from the chairperson of the department. (A student should have completed a minimum of 105 credits to enroll in this course.)*

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

**450/550. 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

**451/551. 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

**452/552. Employee Compensation**

Compensation theories and practices, and their effect on employee recruitment, motivation, productivity, retention, satisfaction, and morale. Prereq.: 352 or permission of department. 3 Cr. S.

**453/553. 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.

**459/559. 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.

**466/566. 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.

**467/567. Organization Theory**

How and why organizations evolve. Interconnections of structure, culture, and processes in organizing. 3 Cr. F, S, SUM.

**470/570. 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.

**479/579. 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.

**483/583. 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

**484/584. 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.

**485/585. 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

**486/586. 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. F, S, SUM.

**498/598. 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, MKGB 320. Permission of department. 3 Cr. F, S.

## **MANUFACTURING ENGINEERING (MfGE)**

211 ENGINEERING AND COMPUTING CENTER/255-3252

*See also College of Science and Engineering description and requirements.*

**Chairperson:** Andrew H. Bekkala. **Faculty:** Bekkala, Covey, Downey, Yu, Zong

The Bachelor of Science degree program in Manufacturing Engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. EAC/ABET is the only nationally-recognized engineering accreditation agency. The major draws on faculty expertise in areas of controls and robotics; materials science and mechanics of processes; automation, production and process planning; computer-aided design and manufacturing; and optics and lasers.

The Manufacturing Engineering program is designed to provide students with the necessary skills to be innovative, imaginative and integrated thinkers. Program graduates will be engineers who have a thorough knowledge of the entire manufacturing process, from design through production and management. This involves integrating systems design, the development of manufacturing processes and effective communication with workers and management.

The major includes course work in mathematics, basic science, computer science, engineering science, and mechanical and electronic design. The study of humanities and social science helps the student understand the effects of emerging technologies on society. The manufacturing engineering program prepares the student for an engineering career in design, manufacturing, production, quality control, or project engineering. The program is also suitable as preparation for graduate study in manufacturing engineering, industrial engineering, material mechanics, mechanical engineering and engineering management.

Students entering this program should have a strong aptitude in mathematics and science. They will be expected to have had course work in physics, chemistry and mathematics through advanced algebra and trigonometry in high school. Remedial courses are available for students without this preparation, but credits in remedial courses will not count toward completion of the major.

Admission to the major will be considered after completion of selected courses in MATH, PHYS, CHEM, EE, ENGR, and MfGE with a grade point average (GPA) of at least 2.5 and an overall GPA of at least 2.5. These courses can be taken at SCSU or transferred from other institutions. Courses with grades below "C" or courses with pass/no pass grades will not be accepted in transfer. GPA computation for admission to the major includes all MfGE courses taken even if repeated. Students are not allowed into 300 and 400 level classes until admitted into the major except by special permission. Students who do not continue to meet department standards may be placed on probation or disqualified from the major.

Students who graduate in engineering and take the following courses will have satisfied the university general education requirements. Core: ENGL 191; SPC 192; PHIL 194; and ECON 201

Distribution: Fine Arts and Humanities (9 Cr.), Social Science (6 Cr.) *See engineering adviser for possible waiver of 3 credits of Fine Arts and Humanities.*

The 12 credit General Education requirement, including the core requirements in mathematics and science is considered satisfied because of the extensive course work in mathematics and science.

Engineering students must take a two course General Education sequence in Fine Arts, Humanities or Social Science. The General

Education rule prohibiting more than one course from a department is waived. At least 15 credits in these areas must be concerned primarily with cultural values rather than exercises that enhance a student's performance.

Students are encouraged to speak with their engineering adviser when selecting General Education classes.

### **Bachelor of Science**

#### **Major in Manufacturing Engineering**

Required courses (99 Cr.)

MfGE 101, 102, 200, 210, 220, 320, 330, 331, 340, 341, 350, 360, 430, 440, 460, 470, 480, 481; CHEM 210; ECON 201; EE 329 and 201 or ENGR 332; ENGR 241, 341; MATH 221, 222, 311, 325; PHYS 234, 235; STAT 353

### **Manufacturing Engineering Technical Electives (6 Cr.)**

Choose from:

MfGE 410, 420; 450, 454, 456; 462, 472; 488; PHYS 333, 435; ENGR 447.

### **COURSE DESCRIPTIONS**

#### **+101. Introduction to the Engineering Profession**

History of engineering achievements; social impact of engineering; critical thinking and engineering problem solving; engineering careers and work opportunities; professional responsibilities and ethics.

MATH/STAT 193 or equivalent. 3 Cr. F, S.

#### **102. Engineering Problem Solving**

A programming language appropriate to engineering, such as FORTRAN or C, will be used to model and simulate problems from engineering disciplines. Prereq.: MATH 112 or equivalent. Coreq.: MATH 113 or equivalent. 3 Cr. F, S.

#### **200. Introduction to Thermal Sciences**

Heat-transfer, fluid dynamics, and thermodynamics, with applications to manufacturing processes. Effects of heat-transfer on solidification, fluid flow on lubrication, and metallurgical thermodynamics for predicting reactions. Prereq.: 102; ENGR 241; PHYS 234; concurrent ENGR 341 and MATH 325. 3 Cr. S.

#### **210. Engineering Materials**

Properties, composition, structure, and processing of metals, ceramics, and polymers. Crystal structure, imperfections, atomic diffusion, equilibrium, and kinetic consideration in solid state transformations and thermomechanical treatments. Mechanical behavior and testing of engineering materials. Lab. Prereq.: CHEM 210; PHYS 234. 3 Cr. S.

#### **220. Engineering Design Graphics**

The graphic language of engineering and computer-aided design drafting. Application of engineering graphics to mechanical design projects. Lab. Prereq.: MATH 221 or approval of instructor. 3 Cr. F

#### **221. Introduction to Mechanical Design**

Integrated engineering design for students transferring into manufacturing engineering who have had most of the engineering content of a required course but lack the associated design content. Design content in the curriculum is required by EAC/ABET. Variable credits. 1-3 Cr. ALT.

#### **320. Computer Assisted Design**

Advanced computer-assisted, interactive graphics and software tools in mechanical design and analysis. Theories and practices of CAD and finite element method. Labs. Prereq.: 330, 340. 3 Cr. S.

#### **330. Engineering Materials Processing I.**

Manufacture of products and manufacturing process. Casting, forming, cutting, and sheet-metal working process theories and practice. Labs. Prereq.: 220, 210, and 340 (or concurrent). 3 Cr. F

#### **331. Engineering Materials Processing II.**

Computer-Aided Manufacturing, joining processes, processing of non-traditional machining and surface-finishing processes. Labs. Prereq.: 330; 3 Cr. S.



### 340. Mechanical Design Fundamentals

Mechanical design; stress and deflection of engineering components; properties of engineering materials; failure analysis for steady and variable loading. Lab. Prereq.: 102, 210, 220; ENGR 241. 3 Cr. F

### 341. Design of Machine Elements

Mechanical engineering design of fasteners, power screws, welded joints, springs, journal bearings, rolling-elements bearings, gears, shafts, clutches, and brakes. Prereq.: 340. 3 Cr. S.

### 350. Machine Control

Discrete control, digital control logic, sequential and feedback control, PLCs, stepper motors, and other devices. Motion control methods, performance. Control languages, techniques, and systems, hierarchy. Prereq.: EE 329; MATH 325; ENGR 341. 3 Cr. S.

### 360. Manufacturing Economics

Analysis of cost for manufacturing operations, tool-engineering economics, cost estimating, and cost accounting. Economic selection of equipment, small-tools, economic lot sizes, break-even charts. Evaluating production economics and investment alternatives. Principles of Engineering Economics, effects of capital projects. Coreq.: 330. 2 Cr. F

### 430. Process Design and Planning

Manufacturing methods and product design at a competitive price. Evaluation of alternative methods of processing. Applications of group technology and part design representation. Computer-Aided Process Planning (CAPP). Prereq.: 331, 360. 2 Cr. F

*Note: MfgE 430 and 440 are offered in the first and second half of the fall semester respectively. Each course meets 4 hours per week.*

### 440. Tool Design

Machine tool design: precision, drives and economy. Cutting and forming tool materials, geometries, selections, sharpening, and standards. Design of jigs, fixtures, and pressworking tools. Lab. Coreq.: 430. 2 Cr. F

*Note: MfgE 430 and 440 are offered in the first and second half of the fall semester respectively. Each course meets 4 hours per week.*

### 450. Industrial Robots

Robot design, capabilities, economics, and interfacing. Forward and inverse arm solutions, Jacobian, control algorithms. Control hierarchy and languages. Lab. Prereq.: 350; MATH 311. 3 Cr. F. Technical elective, offered on DEMAND.

### 460. Quality Engineering

Quality characteristics and the impact of engineering design. Interaction of management, customers, and culture. Robust design methods, design of experiments, control charts, cause and effect relationships, least squares and SVD identification. Lab. Prereq.: 331; STAT 353. 3 Cr. S.

### 462. Production Planning/Control

Production systems, forecasting and time series analysis, inventory systems, capacity and material requirements planning, project planning and operations scheduling, job sequencing. Batch and discrete-parts production. MRP/II and JIT and CIM. Lab. Prereq.: 331; STAT 353. 3 Cr. F. Technical elective, offered on DEMAND.

### 470. Facilities Planning/Materials Handling

Work analysis, process design, and material flow analysis. Facility layout and material handling systems design using systems engineering approach. Stochastic process analysis and simulation techniques. Projects. Lab. Prereq.: 430, STAT 353. 4 Cr. S.

### 472. Manufacturing Systems

Manufacturing and automation, high-volume production systems, NC production systems, group technology, and flexible manufacturing systems. Computer integrated manufacturing. Lab. Prereq.: 350, 462. 3 Cr. S. Technical elective, offered on DEMAND.

### 480, 481. Manufacturing Design Project I, II

Group engineering design project sequence under faculty supervision. Projects typical of problems engineers must solve in the field. Presentations and formal technical report required. Prereq.: Senior standing, permission of department. 3 Cr. F, S.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 410/510. 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.

### 420/520. 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.

### 454/554. 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.

### 456/556. 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.

## MARKETING AND GENERAL BUSINESS

**Chairperson** William C. Rodgers. **Faculty:** Acheson, Asquith, Bristow, Calhoun, A. Hanafy, J. Johnson, Kellerman, J. Kurtz, Rodgers, Schneider, Sleeper, Walter.

The **marketing major** is designed to develop skills and insights relating to strategies and activities for careers in marketing. The marketing student will explore such areas as product planning and management, distribution, marketing research, retailing, advertising and promotion, consumer behavior, sales and sales management, customer services and satisfaction, and global marketing. Each of these areas offers professional career opportunities for the graduate.



The **general business major** is intended for students who prefer a diversified business background without extensive concentration in any single field. It is intentionally designed to give the student maximum flexibility in course selection and to equip its graduates with "multi-career adaptability." Students interested in pursuing a career with a large corporation, government or their own business are provided with an in-depth exposure to several disciplines. The general nature of the major also makes it appropriate for students planning to enter law school. Flexibility is accomplished by permitting advanced work in at least three of the following areas: (1) accounting; (2) business computer information systems; (3) business law; (4) finance; (5) insurance; (6) management; (7) marketing; (8) real estate; and (9) economics and/or other departments outside the College of Business.

## BACHELOR OF SCIENCE

### Majors

A major in marketing or general business includes the business core (40 Cr.) plus one of the following programs:

#### Marketing Major (30)

18 required credits: MKGB 321, 322, 402, 403, 404, 433.

3 credit capstone experience required: student selects either MKGB 429, 444, or 498.

9 elective credits selected from upper division MKGB courses. With approval of adviser, 3 credits of non-MKGB courses may be used as part of the 9 elective credits.

#### General Business Major (30)

30 credits of business and related electives from 300/400-level courses; students must select courses from at least three of the following nine areas, with the number of credits in any one area not to exceed the stated limits: Accounting (12 credits max); Business Computer Information Systems (12 credits max); Business Law (12 credits max); Finance (12 credits max); Insurance (12 credits max); Management (12 credits max); Marketing (12 credits max); Real Estate (12 credits max); Economics and/or other departments outside the College of Business (6 credits max).

The general business major can be used in numerous ways to build specialized business majors, as illustrated with the following examples:

#### Marketing Information Technology Emphasis:

This track would give students knowledge and skills for a career in the marketing and information technology field. Students would have an understanding of systems analysis and design, application software, emerging technologies, in addition to a broad background in marketing information and services, sales and sales management.

Business Computer Information courses:

BCIS 350, 351, plus two additional 400-level BCIS courses

Business Law course: MKGB 435

Marketing courses: MKGB 321, 322, 415, 419

Choose one 300-400 level elective from ACCT, MGMT or FIRE.

#### Entrepreneurship Emphasis:

(Awaiting MnSCU approval)

Students completing this track would have a distinct understanding of entrepreneurship and all its facets – business management, marketing, technology, law, sales and customer service. Students would complete the track with a broad background in business and have a full understanding of business opportunities and the development of business plans.

Required: FIRE 375, 490; MGMT 364, 462, 498; MKGB 402, 403

Electives: Choose any two of the following: BCIS 350; MGMT 352, 485, 486; MKGB 322, 413, 416, 419

Choose any one of the following: ACCT 371, 482; MKGB 433, 434, 435, 436, 437, 438

### Minors

#### Marketing minor - for nonbusiness and/or bachelor of elective studies students (24)

ACCT 291; MGMT 301; MKGB 235, 320

Marketing electives: 12 elective credits from 300/400 level MKGB courses.

The marketing minor can be used in numerous ways to enhance non-business majors as illustrated with the following examples:

##### Advertising Management:

Recommended elective courses: 321, 403, 414 or 417, and 498.

##### Sales and Sales Management:

Recommended elective courses: 321, 403, 415, 419.

##### Retail and Services Management:

Recommended elective courses: 321, 411, 412, 419.

#### General Business Minor – for nonbusiness and/or bachelor of elective studies students (24)

ACCT 291; MGMT 301; MKGB 235, 320

College of Business electives: 12 elective credits from 300/400 level

College of Business courses (no more than 6 credits from any one of the following eight areas: (1) accounting; (2) business computer information systems; (3) business law; (4) finance; (5) insurance; (6) management; (7) marketing; (8) real estate.

### Notes:

1. Non-business majors who choose to minor in business may take no more than 30 credits of their total university course work in the College of Business.
2. All MKGB courses include a written communication component.
3. Selected marketing and general business courses are an integral part of the international business programs described in this bulletin.
4. Only students admitted to a business major or minor program and who have completed 60 semester credits (junior standing) may enroll in 300- and 400-level courses. MKGB Department permission required for all other students.
5. Business students should consult their adviser before enrolling in 100, 200, and 230 and other lower division business courses due to the 50% rule.

## COURSE DESCRIPTIONS

### +100. Contemporary Business Concepts

The major activities of business and the business environment in today's global society. 3 Cr. F, S, SUM.

### +200. Principles of Entrepreneurship

Entrepreneurship and intrapreneurship; planning, initiating, and developing ventures for business, the arts, science/technology, and related fields. 3 Cr. F, S.

### +230. Consumer and Personal Law

The law as it affects consumers, employees, and members of society. 3 Cr. S.

### 233. Business Communication Lab

Writing business memos, letters, resumes, short reports and formal reports. 1 Cr. F, S, SUM.

### 235. The Legal, Ethical, and Global Environment of Business

Legal, ethical, environmental, political, and global issues affecting business. Governmental regulations, employment relationships, contracts, product liability, consumer protection, and business forms. 3 Cr. F, S, SUM.

### 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.

### 321. Buyer Behavior

Consumer and organizational buying behavior; psychological, economic, and socio-cultural theories as they relate to buying decisions.

Prereq.: 320. 3 Cr. F, S, SUM.

### 322. Marketing Information and Research

Research as an aid to decision-making in marketing management; research methods: market surveys and experiments; interpreting, reporting, and using research results; competitive intelligence. Prereq.: 320 and BCIS 241. 3 Cr. F, S.

### 333. Business Communication Strategies

Advanced business report writing; analysis and interpretation of business communications. Prereq.: 233. 3 Cr. F, S, SUM.

### 428. Marketing/General Business Seminar

Issues in marketing or general business: Specific topic selected for each offering. Prereq.: 320 or permission of department. 3 Cr. ALT.

### 429. Marketing Strategies

Marketing strategy development and decision-making. (Open only to Marketing majors in their final semester.) 3 Cr. F, S, SUM.

### 444. Internship

Participation in a full-time paid position with a cooperating business, governmental, or civic organization whose program has been approved in advance by the department in which the student has an approved major. Credits are provided upon completion of all requirements, of which 3 credits apply as electives in the major program and any additional credits apply as university electives for graduation. Permission of department. 3-12 Cr. F, S, SUM.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 402/502. 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.

### 403/503. Principles of Promotion

Principles of advertising, sales promotion, personal selling, and direct marketing. Prereq.: 320. 3 Cr. F, S, SUM.

### 404/504. Distribution Management

Movement of products and services from producer to consumer; channels of distribution; logistics. Prereq.: 320. 3 Cr. F, S, SUM.

### 411/511. Retail Management

Strategic retail management decisions regarding pricing, promotion, merchandising, site location, store planning and design, and personnel. Prereq.: 320. 3 Cr. F.

### 412/512. 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. 3 Cr. ALT.

### 413/513. Business Marketing Management

Business-to-business marketing; organizational buyer behavior and management strategies. Prereq.: 320. 3 Cr. SUM.

### 414/514. 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. 3 Cr. ALT.

### 415/515. Sales and Sales Management

Personal selling and sales management from an analytical and decision-making perspective. Prereq.: 320. 3 Cr. F, S, SUM.

### 416/516. 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.

### 417/517. Global Promotional Strategy

Promotional strategies in the international marketplace, including advertising, personal selling, and sales promotion. Prereq.: 320 and 403. 3 Cr. ALT.

### 418/518. 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; MGMT 470. 3 Cr. S, ALT.

### 419/519. 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.

### 433/533. Marketing and the Law

Legal regulatory, and ethical aspects of marketing activities including product development, promotion pricing and distribution. 3 Cr. F, S, SUM.

### 434/534. 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.

### 435/535. 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. S.

### 436/536. 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.

### 437/537. International Business Law

The legal, regulatory, and ethical aspects of international trade including cultural, political, and linguistic influence on the international legal environment. 3 Cr. F.

### 438/538. 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.

### 498/598. 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.

## MASS COMMUNICATIONS (COMM)

125 Stewart Hall/255-3293

Also see College of Fine Arts and Humanities descriptions and requirements.

**Chairperson** Dick Hill. **Faculty:** Ahmed, Bryce, Fish, Habte, Heinrich, Hill, McDonnell, Mills, Przytula, Rudolph, Tiberghien, Vadnie.

The Department of Mass Communications is nationally accredited by the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC). The mass communications major includes four sequences – advertising, broadcasting (TV journalism, TV production, radio), news editorial (journalism and photojournalism) and public relations – which emphasize both academic and professional preparation for entering the mass media professions.

In accordance with ACEJMC guidelines, mass communications majors are required to be broadly educated in the traditional liberal arts and sciences. This approach to education prepares students for the pursuit of intellectual excellence beyond the requirements of vocational or professional specialization.

The Center for Holocaust Education is currently housed in the Department of Mass Communications in Stewart Hall. The purpose of the center is to promote teaching of the Holocaust and in addition developing sensitivity to and understanding of anti-semitism, racism, sexism, hatred, oppression and genocide. The Center currently does not have separate cataloging or exhibit space.

## Department of Mass Communications Policy on Liberal Arts and Sciences Courses

Mass communications majors are required to be broadly educated in the traditional liberal arts and sciences. This approach to education prepares students for the pursuit of intellectual excellence beyond the requirements of vocational or professional specialization.

A mass communications major's program consists of the following:

- ▼ 28 credits must be earned in mass communications. These 28 credits do not include COMM 220 and one COMM column A elective.
- ▼ 92 credits must be earned in departments outside of mass communications. (This requirement will include COMM 220 and one COMM column A elective.)  
65 of the 92 credits will be in liberal arts and science departments and programs: art, English, foreign languages, religious studies, local and urban affairs, music, philosophy, speech communication, theatre, economics, geography, history, social science, political science, psychology, sociology/anthropology, criminal justice, human relations, minority studies, women's studies, astronomy, biology, chemistry, computer science, earth science, mathematics, statistics, environmental studies and physics.
- ▼ 40 of the 65 liberal arts and science credits will be general education courses (excluding physical education credits) to meet the SCSU General Education requirements.
- ▼ 25 of the 65 liberal arts and science credits will be elective credits outside mass communications (including physical education credits and minor, second major or foreign language concentration).

### Honors Students:

Honors General Education Requirements are as required in the SCSU Undergraduate Bulletin plus the number of credits needed to satisfy the mass communications liberal arts requirements.

The distribution of departmental liberal arts and sciences requirements, which also must satisfy the SCSU general education requirements, follows:

### Distribution for Liberal Arts and Sciences Requirements for Mass Communications Majors

#### 1. Core Requirements: 17 credits

- SPC 192 (3 cr.)
- ENGL 191 (3 cr.)
- MATH/STAT 193 (3 cr.)
- PHIL 194 (3 cr.)
- Democracy (3 cr.)
- PHY ED/Wellness (1 cr.)

#### 2. Distribution Requirements: 36 credits

##### a. Humanities and Fine Arts (15 cr.)

Complete a minimum of one course from each of the following areas:

- Art
- English/Foreign Languages
- Music
- Speech Communication
- Theatre

##### b. Social and Behavioral Sciences (15 cr.)

Complete a minimum of one course from each of the following areas:

- Economics
- Geography/History/Political Science
- Human Relations/Minority Studies/Women's Studies
- Psychology
- Sociology/Anthropology

##### c. Natural Sciences (6 cr.)

Complete a minimum of one course from at least two of the following areas:

- Astronomy
- Biology
- Chemistry
- Computer Science
- Earth Science
- Physics

### 3. Liberal Arts and Sciences electives (12 cr.)

(from approved departments or programs)

### Course Registration Policies

Mass communications 200-level courses are open to all SCSU students. 300/400-level courses are open to students who have been formally accepted into the major.

### Prerequisites:

No students will be given credit for a course unless they have met the established prerequisites prior to enrolling in the course. Approval of the instructor teaching the course is needed to waive prerequisites. Prerequisites will be waived only for a student the instructor believes has the skill and knowledge comparable to that offered by the prerequisite.

Transfer students who have begun formal application procedures for a major program may be admitted to 300/400-level courses with the approval of the department chairperson. Normally, such approval shall not be granted for more than two semesters.

Up to 12 credits may be transferred to the major program at the discretion of the department chairperson. Exceptions to the policy will be considered by the admissions committee and/or individual course evaluation.

### Major/Minor Acceptance Requirements

Before students will be formally admitted to a mass communications major, they must have:

- ▼ Successfully completed the general education communication requirements and one mass communications course with a grade of "C" or better.
- ▼ A 2.5 GPA in all courses taken at SCSU.
- ▼ Successfully completed the Department of Mass Communications pretest and typing certification test.
- ▼ Completed a meeting with a sequence adviser to plan their major program.
- ▼ Completed acceptance into a second major, a minor or a concentration in a foreign language.

### BACHELOR OF SCIENCE: (34 Crs.)

#### Advertising Sequence

Core courses required of all majors:

COMM 220, 420, 460, 498

Required Courses for Advertising Sequence:

COMM 352, 401, 405, 471, 486

Elective courses:

Choose one from the following Column A electives:

COMM 412, 416, 418, 430 (3 cr.)

Choose any two COMM electives (consult with adviser) (6 cr.)

#### Broadcasting Sequence

Core courses required of all majors:

COMM 220, 420, 460, 498

Required courses for Television Journalism Emphasis:

COMM 272, 273, 333, 378, 478\*

Required courses for Television Production Emphasis:

COMM 224, 273, 277, 377, 476

Required courses for Radio Emphasis:

COMM 271, 272, 333, 451, 464

Elective courses:

Choose one from the following Column A electives:

COMM 412, 416, 418, 430 (3 cr.)

Choose any two COMM electives (consult with adviser) (6 cr.)

\* COMM 478 is required of all TV journalism majors. Because of lack of studio availability to support this course, it is only offered during the summer session. Broadcast students electing the TV journalism emphasis are required to attend one summer session during their junior or senior year.

#### News Editorial Sequence

Core courses required of all majors:

COMM 220, 420, 460, 498

Required courses for Journalism Emphasis:

COMM 240, 340, 346, 350. Select one: COMM 454, 455, 456

Required courses for Photojournalism Emphasis:

COMM 236 or 336, 240, 346, 350, 445

Elective courses:

Choose one from the following Column A electives:

COMM 412, 416, 418, 430 (3 cr.)

Choose any two COMM electives (consult with adviser) (6 cr.)

#### Public Relations Sequence

Core courses required of all majors:

COMM 220, 420, 460, 498

Required courses for Public Relations Sequence

COMM 240, 352, 434, 436, 471

Elective courses:

Choose one from the following Column A electives:

COMM 412, 416, 418, 430 (3 cr.)

Choose any two COMM electives (consult with adviser) (6 cr.)

#### Mass Communications Minor (15)

Completion of COMM 220 plus 12 elective mass communications courses with consultation of a mass communications adviser in the area of concentration.

#### COURSE DESCRIPTIONS

##### +146. American Television and Cultural Diversity (MGM)

The relationship between TV and society focusing on how American TV treats society's various cultures. 3 Cr. ALT.

##### +220. Introduction to Mass Communication

History, nature, functions and criticisms of mass media and their role in society. 3 Cr. F, S, SUM.

##### 221. Writing in Mass Communications

Composition relating to skills in the formats, styles and practices of writing for the mass media. Prereq.: 220; department typing certificate. 3 Cr. DEMAND.

##### 224. Principles of Visual Grammar and Media Writing

Relationship between the image and the word. Assignments pose problems that require analysis and application of the rules of grammar, structure and style commonly employed by a variety of media professionals. Prereq.: 220. 3 Cr. F

##### 236. Media Photography

Photographic technique and basic darkroom skills. Visual composition and style. Projects relating to journalism, advertising and public relations. Lab. Prereq.: 220. 3 Cr. F, S.

##### 240. Print Journalism Principles and Methods

Gathering information and writing news and feature stories. Introduction to editing. Journalism issues and training in covering assignments. Prereq.: 220; typing certification. 3 Cr. F, S.

##### 246. Visual Literacy

Communication of information and ideas through the visual media.

Relationships between verbal and visual media elements. Visual projects. Prereq.: 220. 3 Cr. S.

##### 271. Audio Design

Design and production of audio materials for broadcast and non-broadcast applications. History of radio and program types. Theory and practices in production techniques. Lab. Prereq.: 220. 3 Cr. F.

##### 272. Broadcast News Writing

Basic news gathering, writing, interviewing and editing techniques for radio and TV news. Legal and ethical considerations. Prereq.: 220; department typing certification. 3 Cr. F, S.

##### +273. Broadcast Documentaries Theory and Criticism

Introduction to the documentary. Historical and critical study of the theory, ethics, techniques and influences of the radio, television and film documentary. 3 Cr. F, S.

##### +274. Documentary Study: Issues

Study and criticism of documentary movements and issues including ethical issues. Evaluating a series of documentaries on one subject or time period. May be repeated with different topics. 3 Cr. ALT.

##### +275. Documentaries of the Holocaust (MGM)

Study, criticism and analysis of the Holocaust documentary from a historical and analytical basis. 3 Cr. F, S.

##### 276. Workshop: Television Editing and Production

Studio and location production. Editing of news and public affairs programming. Lab. 3 Cr. SUM.

##### 277. Introduction to Television

Studio and field television production planning, producing, and editing. Theory applications of equipment use and directing. Prereq.: 220. 3 Cr. F, S.

##### 278. TV Production for Advertising/Public Relations

Use of basic television facilities and techniques for advertising and public relations. Introduction to television theory and practice. Lab. Prereq.: 220. 3 Cr. S.

##### 333. Announcing

Voice and interpretation in various types of announcing and reporting. 3 Cr. F, S.

##### 336. Studio Photography

Large format project work in photographic studio. Advertising, illustration and fashion photography. Design and lighting. Lab. 3 Cr. S, SUM, ALT.

##### 340. Public Affairs Reporting

Government and business reporting, investigative techniques and research. Advanced problem solving in news and feature writing. Computer-assisted reporting techniques. Prereq.: 240. 3 Cr. S.

##### 346. Photojournalism

Planning and taking photographs for the mass media. Basic types of equipment and materials. Developing, printmaking and other darkroom processes. Digital scanning. Lab. Prereq.: 236 or consent of instructor. 3 Cr. F, SUM, ALT.

##### 350. Editing and Makeup

News selection, copyediting, headline writing, illustrations, makeup and design for the print media. Prereq.: 240. 3 Cr. S.

##### 352. Advertising/PR Layout, Design and Editing

Advertising design, layout, typography, and production. Quark XPress for layout assignments and final project. Copyediting, cutline writing and headline writing skills. Lab. 3 Cr. F, S.

##### 374. Lighting for TV/Film

Study of television and film lighting used in the studio and on location. Emphasis upon the practical application of lighting theory. Prereq.: 277. 3 Cr. DEMAND.

##### 375. Commercial Writing for Radio and Television

Writing commercials for radio and TV. Scripting techniques for the broadcast commercial. Prereq.: 277 or 278. 3 Cr. F, ALT.

##### 377. Television Field Production

Creative, technical and aesthetic principles, strategies and processes involved in television field productions. Location shooting, A-B Roll linear editing and digital non-linear editing. Prereq.: 224, 277. 3 Cr. F.

**378. Television Reporting and Editing**

Writing, reporting and editing television news reports. Ethics in broadcast journalism. Prereq.: 272. 3 Cr. F.

**405. Advertising Copywriting**

Special advertising writing, instruction and strategy for newspapers, magazines, broadcast, direct response and other mass media. Prereq.: 352 or 401. 3 Cr. F, S.

**412. Mass Media Ethics**

Classical philosophical approaches to ethics. Basic principles of ethics and their application. Cases in journalism, advertising and public relations. Current ethical issues in American and international media. 3 Cr. S.

**414. Seminar (Topical)**

Lecture, readings, research and discussions on selected topics. Majors/minors only. Junior/senior standing. 1-3 Cr. May be repeated with different topics. Maximum 6 Cr. DEMAND.

**418. History of the Mass Media**

Historical development of the mass media. Overview of periods influencing the structures and functions of contemporary mass media systems. 3 Cr. F.

**444. Internship in Mass Communications**

Department approved and directed field experience with approved mass media agency. Learning contract required. 1-3 Cr.

**451. Audio Production**

Production of educational and commercial radio programs. Broadcast theory. Multi-channel applications. Lab. Prereq.: 271. 3 Cr. S

**454. Specialty Reporting and Feature Writing**

Techniques of specialty reporting. Students choose semester-long beats. Project development and implementation plus lead writing, process-centered story ideas, interviewing and research. Prereq.: 240. 3 Cr. SUM.

**455. Editorial Writing**

Principles of persuasion and rhetoric. Personal columns, critical reviews, letters to the editor, design and other materials of the editorial

page. Project on one contemporary issue. Prereq.: 240. 3 Cr. F.

**456. Sportswriting and Broadcasting**

Reporting, writing, editing and broadcasting news of sports and recreation. News feature reporting and coverage of issues from prep to pro. Prereq.: 240 or 272 or consent of instructor. 3 Cr. S, ALT.

**473. Documentary Production**

Analysis, research and topic selection. Organization, scripting and pre-production. Final production of a documentary. Prereq.: 273; 224 or 378. 3 Cr. F

**476. Television Directing**

Directing multicamera studio productions. Aesthetic principles, strategies and processes involved in directing television programs. Lab. Prereq.: 377. 3 Cr. S.

**477. Advanced Television Production**

Producing and directing television programs. Coordinating administrative and creative processes for studio-based and remote productions. Lab. Prereq.: 476 or consent of instructor. 3 Cr. ALT.

**478. Workshop: Television Journalism and Production**

Producing news programs. Ethical issues in news. Public service announcement production. Prereq.: 277 or 378. 3 Cr. SUM.

**479. Public Affairs TV Reporting**

Public affairs reporting, camera and editing. In-depth reporting and subject specialization. News ethics in broadcast journalism. Prereq.: 277; 272 or 378. 3 Cr. ALT.

**489. Mass Media Advertising Production**

Pre-production and production techniques in mass media advertising. Ads for newspapers, magazines, radio and television. Prereq.: 352, 405. 3 Cr. ALT.

**490. Television Advertising Production**

Studio and location production of various types of TV advertising. Methods of TV advertising. Prereq.: 277 or 278 or 401. 3 Cr. ALT.

**498. Ethics and Social Responsibility Practicum**

Professional and conceptual skills gained from major course work is applied to projects that require ethical and socially responsible media message conception and production. 1 Cr. F, S.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

**401/501. 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.

**416/516. 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.

**420/520. Mass Media and Society**

Functions and impacts of mass media on contemporary society. Media content and performance. Media studies and mass communications theories. Prereq.: 15 Cr. in major courses. 3 Cr. F, S.

**424/524. 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.

**425/525. 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.

**429/529. International Advertising and Public Relations**

Transnational and multicultural advertising/public relations. Development of international advertising/public relations campaigns. Prereq.: 401 or 434. 3 Cr. ALT.

**430/530. International Mass Communication**

The free flow of information, media freedom and national development.



Role of international organizations in shaping global journalism. 3 Cr. S.  
**431/531. World Media Systems**  
 Structures, processes, functions of media systems around the world. Local socio-political environments as determinants of media systems. 3 Cr. F.

**432/532. 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.

**434/534. 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. Prereq.: 352. 3 Cr. F. S.

**436/536. PR Writing and Publications**  
 Preparation of materials for use in public relations work including brochures, news releases and newsletters. Prereq.: 434. 3 Cr. F, S, SUM.

**438/538. Public Relations Case Studies and Campaigns**  
 Public relations campaigns, with special attention to case studies dealing with various public relations issues and problems. Prereq.: 434. 3 Cr. F.

**443/543. 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.

**445/545. Advanced Photojournalism**  
 Photojournalistic production for newspapers, magazines, company publications, television. History, theory, trends, ethics, composition. Digital processing. Lab. Prereq.: 346 or consent of instructor. 3 Cr. S.

**450/550. Advanced Editing and Makeup**  
 Format, makeup and typography of print publications with emphasis on traditional quality and current trends. Computer design. Prereq.: 350. 3 Cr. DEMAND.

**458/558. 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. Prereq.: 401. 3 Cr. DEMAND.

**460/560. Mass Communications Law**  
 The First Amendment as it relates to laws governing communication institutions. Application of ethics to mass communications problems solving. (560: term paper requirement). 3 Cr. F, S.

**464/564. 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.

**468/568. 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. Prereq.: 401. 3 Cr. ALT.

**470/570. Modern Communication Technology. Uses and Influences.**  
 Examination of the communications industry and its constituents in the light of recent developments in telecommunications technology. 3 Cr. DEMAND.

**471/571. 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. Prereq.: 401 or 434. 3 Cr. F, S.

**485/585. Cases in Advertising/Communications Management**  
 Communications decision making, planning, and implementing. Evaluating strategies and tactics. Prereq.: 401. 3 Cr. ALT.

**486/586. Advertising Campaigns**  
 Developing advertising strategies. Present, write and defend complex strategic advertising decisions. Prereq.: 352, 401, 405, 471 or consent of instructor. 3 Cr. S.

## MATHEMATICS (MATH)

139 ENGINEERING AND COMPUTING Center/255-3001

**Chairperson** Ralph Carr. **Faculty:** Bahaaddin, Braith, G. Buls, S. Buls, Buske, Carr, Cimperman, G. Earles, R. Earles, Fiske, Haller, Hanszek-Brill, Huang, Hubbard, Hullsiek, S. Johnson, Kalia, S. Keith, Lahren, Leung, Naraine, Scully, Wahl, Wick, Wilmesmeier, Zhao

### Mathematics

Mathematics is a pervasive discipline. Students in a wide variety of fields must understand and apply the concepts in mathematics to solve real world problems. In addition to offering major and minor programs in mathematics, the Department of Mathematics also offers general courses for all students and specialized courses for students in business, science, technology, and education programs. We also offer mathematics competency courses for general education.

Placement testing is required for admission to MATH 072, 111, 112, 113, 115, 193, 196, 211 and 221. Students who did not take placement tests at new student registration are urged to report to the Mathematics Department Office, ECC 139, for placement advice before enrolling in their first math course.

Because mathematics builds from previous knowledge, the Department of Mathematics requires a grade of "C" or better in all major and minor program courses and in all prerequisite courses. (For example, if a student receives a "D" in MATH 221, he/she cannot take MATH 222 because MATH 221 is a prerequisite.)

Students planning to major in mathematics must have strong aptitude in mathematics and are encouraged to take MATH 221 as soon as possible. They are expected to have learned advanced algebra, trigonometry, and precalculus mathematics in high school or have completed MATH 112 and 113 or MATH 115 with grades of "C" or better. All major and minor programs in mathematics must be approved by the Mathematics Department before a student may be accepted into that program.

Prospective majors are eligible to apply for admission to major programs in mathematics when MATH 221, 222, and at least three additional program credits have been completed, with at least six credits of mathematics coursework at St. Cloud State University. All students must earn a minimum GPA of 2.40 in all program courses before being accepted into a mathematics major. Students are urged to apply for admission to their major as soon as they become eligible.

A student who fails or withdraws from 3 or more mathematics classes may be denied entry into a mathematics major or minor. A student who fails or withdraws from 5 or more mathematics classes may be dropped from a mathematics major or minor. A GPA of 2.25 is required for all major and minor programs for graduation.

### The Common Core Requirements

All students majoring in mathematics must complete the following core requirements:

MATH 221 Calculus and Analytic Geometry I (5 cr.)  
 MATH 222 Calculus and Analytic Geometry II (4 cr.)  
 MATH 252 Mathematical Problem Solving with MATLAB (3 cr.)  
 MATH 253 Discrete Mathematical Structures (4 cr.)  
 MATH 312 Elementary Linear Algebra (4 cr.)  
 MATH 321 Vector and Multivariable Calculus (4 cr.)  
 MATH 461 Modern Algebra I (4 cr.)

## BACHELOR OF ARTS

### Mathematics

The B.A. mathematics major is required to complete one of the following options:

1. A minor from the College of Science and Engineering or a minor from Economics or Business Computer Information Systems.
2. A second major, or
3. 12 additional credits in mathematics or science that are approved by the Mathematics Department.

CSCI 201 may be substituted for MATH 252 in the common core requirements.

### Major (40)

1. The Common Core Requirements
2. MATH 325
3. Nine credits of electives from MATH 353, 421, 422, 423, 427, 428, 452, 453, 462, 465, 480, and STAT 447. No more than three credits from MATH 428, 465, and STAT 447.

### Minor (25)

MATH 221, 222, 312, plus 12 additional credits chosen from 253, 321, 325, 353, 421, 422, 423, 427, 428, 452, 453, 461, 462, 480.

## BACHELOR OF SCIENCE

### Mathematics – Teaching

All but one required mathematics course in the B.S. program must be completed prior to student teaching. MATH 431, 432, and 482 must be completed at St. Cloud State University. CSCI 201 may be substituted for MATH 252 in the common core requirement.

### Major (49)

1. The Common Core Requirements
2. MATH 431, 432, 465, 482; STAT 410
3. Six credits of electives from MATH 325, 353, 421, 422, 423, 427, 452, 453, 462, 480.

### Minor (34)

MATH 221, 222, 253, 312, 431, 432, 461, 465, and STAT 410.

### Elementary Education/Special Education

MATH 330, 433, 434, 435 and 439.

### Elementary Education Minor (18)

MATH 431, 433, 434, 435

Six credits of electives in mathematics, computer science, and/or statistics selected with prior approval of the mathematics minor adviser.

## COURSE DESCRIPTIONS

### 070. Basic Mathematics Concepts.

An integrated review of basic algebraic and geometric concepts. Emphasis on problem solving, writing to explain methods and solutions, and collaborative learning. Credits do not count toward graduation. Offered by the Math Skills Center. 2-3 Cr. depending on student's entering skills level. F, S, SUM.

### 072. Intermediate Algebra

Linear equations, inequalities, polynomials, graphs, systems of equations, algebraic fractions, radicals, quadratic equations, exponents, logarithms, functions. Credits do not count toward graduation. Offered by the Math Skills Center. 2-3 Cr. depending on student's entering skills level. F, S, SUM.

### +105. Cultural Mathematics

Topics selected by the instructor to demonstrate the nature of mathematics. 3 Cr. F, S.

### 111. Technical Mathematics

Applications of linear and quadratic functions, systems of equations, exponential and logarithmic functions and trigonometric functions. No more than 5 credits from MATH 111, 112, 113, and MATH 115 may be counted toward graduation. Prereq.: MATH 072, or high school advanced algebra with satisfactory score on departmental pretest. 3 Cr. F, S.

### 112. College Algebra

Functions and graphs; polynomial, radical, rational, exponential, logarithmic functions; equations, inequalities, systems of equations and inequalities; applications. No more than 5 credits from MATH 111, 112, 113, and MATH 115 may be counted toward graduation. Prereq.: MATH 072 or high school advanced algebra with satisfactory score in department pretest. 3 Cr. F, S, SUM.

### 113. Trigonometry

Trigonometric functions and their graphs; inverse trigonometric functions; trigonometric identities, equations, trigonometric applications. No more than 5 credits from MATH 111, 112, 113, and MATH 115 may be counted toward graduation. Prereq.: MATH 112, or high school precalculus with satisfactory score on department pretest. 2 Cr. F, S, SUM.

### 115. Precalculus

Functions and their graphs; polynomial, rational, radical, logarithmic, trigonometric and inverse trigonometric functions; algebraic and trigonometric equations and inequalities, identities, trigonometric applications. No more than 5 credits from MATH 111, 112, 113, and MATH 115 may be counted toward graduation. Prereq.: MATH 072, or high school advanced algebra with a satisfactory score on department pretest. 5 Cr. F, S.

### 170. Mind Over Math

A math course for the non-mathematician. Knowledge and tools to develop non-routine problem solving skills and to reduce math avoidance. 1 Cr. S/U. Grading: S.

### +193. Mathematical Thinking

Development of problem solving and decision making strategies using mathematical tools from arithmetic, algebra, geometry, probability, and statistics. Skills to communicate and defend solutions and decisions. Prereq.: MATH 070 or high school advanced algebra with a satisfactory score on the department pretest. 3 Cr. F, S, SUM.

### 196. Mathematical Thinking and Modeling

Development of problem solving and decision making strategies using mathematical tools from algebra, geometry, function analysis, probability, and matrices. Skills to communicate and defend solutions and decisions. Prereq.: MATH 072 or high school advanced algebra with a satisfactory score on the department pretest. 3 Cr. F, S, SUM.

### +211. Survey of Calculus I.

Ideas and concepts of calculus. Topics from differential and integral calculus of one variable. Applications to business, life sciences, economics, and other disciplines. Prereq.: 111, 112, or 115, 196. 3 Cr. F, S, SUM.

### 212. Survey of Calculus II.

Ideas and concepts of calculus. Topics from differential and integral calculus of one variable. Applications to business, life sciences, economics, and other disciplines. Prereq.: 211. 3 Cr. S.

### 219. Semester Transition Calculus

Introduction to integral calculus. Intended for students to make the transition from MATH 241 to MATH 222. Prereq.: 241. 3 Quarter Cr. 2 Semester Cr. S 98, SUM 98, F '98.

### 221. Calculus and Analytic Geometry I.

Limits, continuity, differentiation, applications of derivatives, integration. Prereq.: 115, or 112 and 113, or high school advanced algebra and trigonometry with a satisfactory score on department pretest. 5 Cr. F, S, SUM-ALT.

### 222. Calculus and Analytic Geometry II.

Integration techniques and applications, inverse functions, topics in analytic geometry, sequences and series, improper integrals, plane curves. Prereq.: 221. 4 Cr. F, S.

**252. Mathematical Problem Solving with MATLAB**

MATLAB, a mathematical computing and programming environment, will be introduced and used to simulate, model and solve mathematically based problems. Coreq.: 222. 3 Cr. F, S.

**253. Discrete Mathematics**

Logic, sets, relations, functions, properties of numbers, counting methods, infinite sets. Emphasis on topics important to computer science. Prereq.: 221. 4 Cr. F, S.

**311. Linear Algebra and Multivariable Calculus for Engineering Majors**

Systems of linear equations and their matrix representations, determinants, Cramer's rule, vector spaces, linear independence basis and dimension, inner products, equations of lines and planes in  $R^3$ . Multivariable functions, partial differentiation and multiple integration with applications. Prereq.: 222. 3 Cr. F, S.

**312. Elementary Linear Algebra**

Matrices, matrix operations, systems of linear equations, determinants, geometry of  $R^n$ , vector spaces, subspaces, linear transformations, inner product spaces, eigenvalues, and applications. Simple proofs. Prereq.: 211 or 221. 4 Cr. F, S.

**321. Vector and Multivariable Calculus**

Vectors, functions of several variables, gradients, multiple integrals, vector fields, Green's & Stoke's theorems, applications. Prereq.: 222. 4 Cr. F, S.

**325. Differential Equations**

First and second order differential equations with applications; matrices, determinants, bases, eigenvalues; systems of linear equations with constant coefficients; initial value problems and general solutions; variation of parameters. Prereq.: 222. 3 Cr. F, S.

**330. Mathematics for Elementary Teachers**

Patterns, relations, and functions; discrete mathematics; number sense; shape and space. For elementary education and special education majors only. Prereq.: 193 or 196. 3 Cr. F, S, SUM.

**353. Operations Research Models**

Construction and solution of mathematical models associated with operations research. Prereq.: 222. 3 Cr. S, ALT.

**428. Introduction to Probability Models**

Probability theory, random variables, Markov chains, Poisson process, queueing theory. Prereq.: MATH 222. 3 Cr. DEMAND.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**421/521. 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.

**422/522. Introduction to Real Analysis II.**

Series, power series, uniform and pointwise convergence, Riemann integration, and applications. Prereq.: 421. 3 Cr. DEMAND.

**423/523. Complex Variables I.**

The complex field, the theory of analytic functions, power series. Fundamental theorem of algebra. Prereq.: 311 or 321. 3 Cr. DEMAND.

**427/527. Partial Differential Equations**

Partial differential equations of mathematical physics, boundary value problems, classical solution methods, Bessel functions. Prereq.: (311 or 321), 325. 3 Cr. DEMAND.

**431/531. 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 437-537 or ED 421-521 but not with MATH 432. 3 Cr. F, S.

**432/532. 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 microteaching. Must be taken concurrently with ED 421-521 or ED 437-537, but not with MATH 431. 4 Cr. F.

**433/533. Algebra for Elementary and Middle School Teachers**

Algebraic concepts, representations, structures and applications.

Prereq.: 330 or equivalent. 3 Cr. F.

**434/534. Recent Trends in Elementary School Mathematics**

Modern approach to teaching mathematics, teaching aids and devices, experimental work, recent research. 3 Cr. S.

**435/535. 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.

**439/539. 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.

**452/552. 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.

**453/553. Numerical Linear Algebra**

Direct and iterative solutions in linear algebra. Orthogonal polynomials, splines and least squares approximations. Error analysis. Prereq.: 452. 3 Cr. DEMAND.

**461/561. 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.

**462/562. 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.: 461. 3 Cr. DEMAND.

**465/565. Elements of Geometry**

An analysis of axiomatic systems, a critique of Euclid, and an axiomatic development of neutral, Euclidean, Lobachevskian and Riemannian geometries. Prereq.: high school geometry and 461. 3 Cr. S.

**480/580. 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. 3 Cr. May be repeated to maximum of 6 Cr. DEMAND.

**482/582. Student Teaching Seminar**

For teacher candidates only. 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.

**483/583. Topics in Elementary School Mathematics**

In depth study of a special topic in mathematics relevant to the elementary school curriculum. 3 Cr. DEMAND.

**MEDICAL TECHNOLOGY (MEDT)**

273 MATHEMATICS AND SCIENCE CENTER/255-3130

An allied health program. Also see individual program description in this bulletin for nuclear medicine technology.

Coordinator Judith Torrence.

The Bachelor of Science degree in medical technology requires a prescribed, three year, curriculum at St. Cloud State University followed by clinical course work at an affiliated school of medical technology. The professional coursework consists of clinical hematology, clinical chemistry, clinical immunology, clinical microbiology, immunohematology, clinical microscopy, laboratory management and education. Upon completion of the clinical coursework, students are eligible to take national certification exams.

Students may apply to the major program when their completed credits equal or exceed 24 semester credits including BIOL 151 and CHEM 210 with a grade point average of 2.8 or higher. At least eight credits must have been earned in residence at St. Cloud State University. It is suggested that students apply for the major as early as possible to ensure a timely plan for completing the required courses and securing a seat in a clinical program.

Admission to the major does not imply automatic acceptance into a clinical program. Acceptance by the clinical affiliates is competitive. Applications are made in September, approximately one year prior to the starting date of the clinical program. Specific information regarding the application process, the recommended grade point average and the details of each affiliate's program is available through the medical technology director's office. Students must complete all core and general education requirements before beginning the clinical phase.

Current affiliated schools of medical technology are at Hennepin County Medical Center, St. Luke's Hospital in Cedar Rapids, Iowa and Penrose Hospital in Colorado Springs, Colorado.

**Core requirements (55)**

BIOL 151, 262, 264, 362, 366, 462, 464, 478, 484, 486  
CHEM 210, 211, 240, 241

Note: Medical Technology students are not required to take BIOL 152-Organismal Diversity as a prerequisite to BIOL 262-Genetics.

**Clinical Phase Requirements (32)**

MEDT 401, 402, 403, 404, 405, 406, 407

**BACHELOR OF ELECTIVE STUDIES**

This major is designed to primarily serve transfer students and those with prior experience in the clinical laboratory.

**Major (36)**

Completion of 36 credits at the 200 level or above with the approval of the medical technology program director.

**COURSE DESCRIPTIONS****401. Clinical Hematology**

Theory of blood cell formation; hematological diseases, hemostasis; microscopic examination of blood and bone marrow; experience with hematological instruments and techniques which determine major hematologic and clotting parameters. Lab. Prereq.: acceptance into internship program. 1-8 Cr. F, S, SUM.

**402. Clinical Chemistry**

Identification and quantitation of specific chemical substances in blood and body fluids by various analytical techniques; clinical correlation with disease states; principles of instrumentation; quality control; data processing; toxicology. Lab. Prereq.: acceptance into internship program. 1-11 Cr. F, S, SUM.

**403. Clinical Immunology**

Antigen/antibody structure, function and interaction; basic principles and procedures of humoral and cellular immunology; performance and clinical correlation of serological testing; quality control. Lab. Prereq.: acceptance into internship program. 1-3 Cr. F, S, SUM.

**404. Clinical Microbiology**

Cultivation, isolation, and identification of bacteria, fungi, parasites, and viruses; determination of sensitivity to antimicrobial agents; clinical correlations to disease states; principles of asepsis; environmental monitoring; quality control. Lab. Prereq.: acceptance into internship program. 1-9 Cr. F, S, SUM.

**405. Clinical Immunohematology**

Blood group systems, principles and procedures for antibody detection and identification; donor blood collection; preservation; processing; component therapy; transfusion reaction evaluation; Rh immune globulin; quality control. Lab. Prereq.: acceptance into internship program. 1-6 Cr. F, S, SUM.

**406. Clinical Microscopy**

Theory of renal function in health and disease; renal function tests including chemical and microscopic examination of urine, feces, gastric, and spinal fluids and other body fluid analysis; quality control. Lab. Prereq.: acceptance into internship program. 1-3 Cr. F, S, SUM.

**407. Laboratory Management/Education**

Basic management principles, policy and procedure development, job descriptions, budgets, government regulations. Education principles, construction of objectives, tests and evaluation tools, bench teaching. Lab. Prereq.: acceptance into clinical phase. 1-3 Cr. F, S, SUM.

**MICROCOMPUTER STUDIES**

A program in the Department of Statistics.

Director: Monte Johnson. Faculty: Farmer, Gammell, Guster, H. Hebert, M. Johnson, Mowe, Rysavy.

The Microcomputer Studies Program offers 17-credit and 24-credit minors in microcomputer studies. Additionally, there is a 27-credit minor in data communications.

Microcomputer studies programs have been designed to be supporting programs for students attending SCSU who need to become knowledgeable and sophisticated users of microcomputers. The microcomputer studies minors are open to all students except those students majoring in computer science and applied computer science.

The data communications minor is designed to provide students with a conceptual background in the principles of operation, design and evaluation of data networks and will prepare students for entry-level positions such as network analyst.

To enter one of the microcomputer studies minors or the data communications minor, students should complete MCS 267 and 397 with a "B" average. Students with little or no background should take MCS 169. Applications for admission to these minors can be obtained from the director of microcomputer studies.

**BACHELOR OF ARTS****Microcomputer Studies**

Minor - Languages, Software Packages and Operating Systems (24)

Required:

MCS 267, 397, 425, 426

Electives:

Select two: MCS 302, 303, 304, 412; ETS 311, 312, 343, 438; ENGL 332; CHEM 451; EE 329

Select one: MCS 436, 437, 450

Computer science and applied computer science majors may not elect this minor.

**BACHELOR OF ARTS**

**Microcomputer Studies**

**Minor – Languages, Software Packages and Communications (17)**

Required:

MCS 267, 397

Electives: (select two) MCS 302, 303, 304;

(select one) MCS 412, 425; ETS 311, 312, 343, 438; ENGL 332;

CHEM 451; EE 329

Computer science and applied computer science majors may not elect this minor.

**BACHELOR OF ARTS**

**Data Communication**

**Minor (27)**

Required: MCS 267, 397, 425, 426, 450, 451; STAT 229 or equivalent

Electives: (select one) MCS 436, 437

Completion of MATH 113 or equivalent is required prior to entering the data communications minor.

**BACHELOR OF ELECTIVE STUDIES**

**Microcomputer Studies**

**Minor (24)**

Completion of 24 credits with the approval of the Microcomputer Studies program.

**BACHELOR OF ELECTIVE STUDIES**

**Data Communication**

**Minor (27)**

Required: MCS 267, 397, 425, 426, 450, 451; STAT 229 or equivalent

Electives: (select one) MCS 436, 437

Completion of MATH 113 or equivalent is required prior to entering the data communications minor.

**COURSE DESCRIPTION**

**+169. Computers in Society**

Same as CSCI 169. History, moral and social implications of computer technology, problem solving, extensive hands-on microcomputer experience involving software packages (including word processing, database management, spreadsheets). 3 Cr. F, S, SUM.

**267. Beginning BASIC**

BASIC programming in windows environment. Input and output of data, accumulators and counters, loops, functions and subroutines, one and two dimensional arrays, sequential files, random files. Prereq.: CSCI 169 or equivalent. 4 Cr. F, S, SUM.

**302. Software Package for Micros I.**

A state-of-the-art integrated software package emphasizing spreadsheets will be used to develop usage skill related to both the software package and the operating system, programming ability in the language of the software package, and an understanding of the integration of the modules in the software package. Prereq.: MCS 169 or equivalent. 3 Cr. F, S, SUM.

**303. Software Packages for Micros II.**

A state-of-the-art integrated software package emphasizing database management will be used to develop usage skills, programming ability in the language of the software, and an application package. Prereq.: MCS 169 or equivalent. 3 Cr. F, S, SUM.

**304. Software Packages for Micros III.**

Word processing and graphics packages in a network environment. Creation and use of styles and templates. Use and configuration of a graphic operating system. Prereq.: MCS 169. 3 Cr. F, S, SUM.

**397. Operating Systems of Micros**

Binary and hex arithmetic, microcomputer architecture, data types, storage classes and operators, control structure, operating systems, functions and characteristics, concurrent processing, I/O, resource allocation and scheduling. Prereq.: 267 or equivalent. 4 Cr. F, S, SUM.

**412. Microcomputer Graphics Programming**

Programming related to graphics; line, box and circle-drawing commands; bitmaps; animation; sound. Prereq.: 397. 3 Cr. DEMAND.

**444. Internship**

Supervised training opportunity provided by industry or an educational institution. Prereq.: 426. 1-12 Cr. DEMAND.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**425/525. 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.

**426/526. Microcomputer Networking II.**

Detail coverage and application of the datalink through application layers of the OSI model. Prereq.: 425 or equivalent or consent of instructor. 3 Cr. F, S.

**436/536. World Wide Web Authoring and Administration**

Authoring and implementing web documents. Setting up and administering web servers. Prereq.: 426 or consent of instructor. 3 Cr. F

**437/537. Computer Network Security**

Developing an effective network security strategy. Analyzing hole in protocols, designing firewalls, authentication and combatting the Hacker Tools. Prereq.: 426 or consent of instructor. 3 Cr. S.

**450/550. Data Network Performance Analysis**

Quantitative evaluation and data networks; pinpointing bottlenecks and corrective strategies. Prereq.: 426 and STAT 229 or higher or consent of instructor. 3 Cr. F

**451/551. Data Network Design**

Students will develop their own document specifying a hypothetical data network through the use of simulation and case studies. Prereq.: 450 or consent of instructor. 3 Cr. S.

**474/574. Advanced Microcomputer Programming**

Advanced higher-level or system programming on microcomputers. Prereq.: knowledge of higher-level language and consent of instructor. 3 Cr. DEMAND.

**490/590. Practicum in Microcomputers**

Supervised programming or installation and administration of software packages. Can be repeated for a maximum of 6 credits. Prereq.: 426 and approval of the MCS program committee. 1-3 Cr. DEMAND.

**MINNESOTA HIGHWAY SAFETY  
CENTER (MHSC) / TRAFFIC SAFETY  
EDUCATION (TSE)**

A120-E EDUCATION BUILDING/255-2135

*A program of the College of Education.*

**Director:** John Palmer. **Faculty:** Anderson, Benson, Brody, Buraglio, Christensen, Isbemer, Onstad, Ouellette, Ruhr, Schultz, Sundin.

It is the mission of the Minnesota Highway Safety Center to provide educational activities which prevent financial loss and human trauma and to promote the safe and efficient operation of the highway transportation system. As an integral part of a comprehensive university serving primarily the citizens of Minnesota, the center also functions as a regional education resource for the upper midwest and attracts students from other states and nations.



### Teaching Licensure (Driver Education) (13)

The following program meets the requirements of the Minnesota Board of Teaching, rule M-CAR 87000.4901. Required (13) TSE 290, 390, 398, 454/554, 490/590.

### COURSE DESCRIPTIONS

#### 290. Driver & Traffic Safety Education I.

Basic analysis of the driving task. Teaching techniques and applications to classroom teaching. Classroom defensive driving principles and theory. Classroom laboratory teaching. 3 Cr. F, SUM.

#### 390. Driver & Traffic Safety Education II.

Application of educational techniques in the laboratory phase of driver education. Laboratory teaching experience included. 3 Cr. S, SUM.

#### 398. Driver Education Laboratory Practicum

Application of driver education principles through teaching students. Behind-the-wheel and simulation experiences. 1 Cr. S, SUM.

#### 444. Internship: General

Arranged by contact with field supervisor, college supervisor and student. Should be established semester previous to experience. Credits awarded are determined by clock hours involved. 1-12 Cr. DEMAND.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 430/530. Seminar: Topical Traffic Safety

Contemporary traffic issues, such as accident prevention and community involvement. May be repeated topically. 1-3 Cr. DEMAND

#### 453/553. Emergency Driving Techniques

Organization and administration of program development. All phases of emergency driving instruction. 1 Cr. DEMAND.

#### 454/554. 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 Driver Improvement Program. 3 Cr. F, S, Sum.

#### 455/555. Workshops: Special Topics Traffic Safety

Specific strategies for promoting quality driver education will be identified. May be repeated three times. 1-3 Cr. DEMAND.

#### 456/556. Improving Driver Education Instruction

Assists driver education instructors to improve the driving of their students. Risk management. 3 Cr. DEMAND.

#### 464/564. 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. S.

#### 490/590. 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. Prereq.: 390 or DE certification. 3 Cr. SUM.

## MINORITY STUDIES (MINS)

B-120A EDUCATION BUILDING/255-3036 OR 255-4928

Also see College of Social Sciences description and requirements.

**Director** Robert C. Johnson. **Faculty Committee:** Eyo, Harles, Hellwig, Jackson, Johnson, E. Jones, J. Parrott, Pluth, Samuel.

The Minority Studies program is designed for students who desire to complement their major course of study with an understanding and examination of American racial and ethnic groups, namely African-American, Latinas/os, Asian Americans, and American Indians. It provides insight into the history, contributions, social/cultural development, intellectual expression, and present circumstances of these various groups in American society. The minority studies minor is a multidisciplinary program, allowing for flexibility within its framework.

### BACHELOR OF ARTS AND BACHELOR OF SCIENCE (Non Teaching) Minor (24)

MINS 201, 401

Electives from the following courses with approval by the MINS adviser. ANTH 159, ENGL 216, 414, 490; HIST 350, 352 354; HURL 201, 206 OR 496-497; MUSM 229, POL 492; SOC 268, 468-568; SPC 332; SPED 404; SSCI 476

With approval of the minority studies director, up to 6 credits may be taken in other courses with a minority studies focus offered as new courses, special topics or issues classes, seminars, experimental classes or workshops. Up to 6 credits of an internship in minority studies may be counted toward the minor.

### COURSE DESCRIPTIONS

#### +201. Introduction to Minority Studies (MGM)

A multidisciplinary introduction to the study of people of color in American society. 3 Cr. F, S.

#### 305. Topics in Minority Studies

An intermediate level course focusing on select topics, issues, developments and concerns affecting Asian-American, Black, Latino and American-Indian communities. May be repeated to a maximum of 6 credits. 1-3 Cr. DEMAND.

#### +350. Minorities in Latin America (MGM)

An investigation of the position of minorities in contemporary Latin America, principally Afro-Americans and Amerindians, utilizing a comparative and interdisciplinary approach. 3 Cr. S.

#### 401. Senior Seminar

Investigation, through reading, discussion, and/or field experience of a topic or issue relevant to the American minority experiences. Synthesis of concepts, data and analysis from specialized minority studies courses through reading, discussion, research, and/or field experience. Prereq.: 201 or consent of instructor. 3 Cr. S.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 405/505. 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 (MUSE, MUSM, MUSP)\***

238 PERFORMING ARTS CENTER/255-3223

*Also see College of Fine Arts and Humanities description and requirements.*

**Chairperson** Bruce Wood. **Faculty:** Allen, Douma, Echols, Fuller, Gast, Givens, Hannah, Hansen, Judith, Layne, Miller, Moore, Schmidt, Smale, Springer, Vermillion, Wilhite, Wood.

The Department of Music is a fully accredited member of the National Association of Schools of Music. The functions of the department are: to offer a variety of curricula to develop awareness of the unique aesthetic experience of organized sound; to prepare teachers, performers, composers and researchers of music; to contribute to the musical life of the university, community, state and nation.

**Advising.** Course work for the music major follows an established sequential pattern. To ensure proper sequencing and timely completion of course work, students must seek the advice of a faculty member in the music department. It is the student's responsibility to seek this advice at the beginning of the freshman year.

**Applying for the major.** Application to the music major should be made upon completion of 15 semester credit hours. Students applying for their major in music must contact their applied instructor for approval and signature.

A grade of "C" or above in all music classes is required for all music major or minor degree programs.

**Transfer students.** Students wishing to transfer to St. Cloud State University should contact the department chairperson for evaluation of music credits before entering the degree program.

**Instrumental music majors and minors.** A minimum of three years of high school experience in band or orchestra is recommended for prospective instrumental music majors and minors.

**Vocal Music majors and minors.** A minimum of three years of high school experience in a vocal group is recommended for prospective vocal music majors and minors.

Incoming freshman students who have not had one year previous study are advised to take class voice prior to private voice.

**Private applied lessons.** Students should pick up an application for private lessons in the music office. Students should inquire about the availability of instruction when returning the completed application to the music office.

Students not majoring in music may register for private lessons as electives if they are registered in a music department performing organization. Priority is given to music majors and minors.

1 credit lessons meet 1/2 hour weekly.

2 credit lessons meet 1 hour weekly.

3 credit lessons meet 1 1/2 hours weekly (B.M. majors only)

**Piano proficiency.** All music major degree programs require a piano proficiency examination. The exam is designed to ensure that all students master practical piano performance skills. Content of the proficiency examination is available from the music office.

Students are strongly encouraged to begin piano study during the freshman year, and continue lessons until the piano proficiency exam is completed. Students may take the piano proficiency exam at any time during piano study but no later than the second semester of the junior year. The B.S. music major must complete the requirements of the exam two semesters prior to student teaching.

**Freshman students.** Freshman students interested in a music degree should enroll in the following courses for fall semester and should contact the music office regarding placement exam, applied lessons and auditions for performing organizations.

**MUSM 101.** A placement exam must be taken prior to the first class session. Contact the music office.

**MUSM 127.** Introduction to Music Systems.

**Applied music lessons.** Instrumental or vocal. Applications for

applied music lessons are available in the music office. In addition to lessons in an applied major, applied piano lessons are recommended for all music majors (see above).

**Performing organization.** Musical performing organizations are available for all levels of musical experience. Auditions are held during the first week of classes.

### **BACHELOR OF ARTS**

This program is primarily for those interested in music as personal enrichment, as background for a career in the music industry or preparation for further studies in music.

#### **Major (45)**

MUSM 101, 102, 111, 112, 127, 203, 204, 213, 214, 321, 322; MUSP 270

6 semesters of applied major (minimum of 1 semester at 300 level)

2 semesters of major performing organization

4 semesters of elective performing organization

2 semesters of applied piano (non-pianists) with completion of piano proficiency OR

2 semesters of applied minor (pianists)

1 credit music elective

#### **Optional Emphases:**

##### **Jazz (15)**

MUSM 229, 423, 433, 434, 468, 469

2 semesters MUSP 157 or 158

2 credits applied lessons

##### **Theory/Composition (17)**

MUSM 229, 401, 402, 423, 433, 434

4 semesters MUSM 303

##### **Minor (19)**

MUSM 101, 102, 111, 112, 127

MUSM 321 or 322

2 semesters of applied major

2 semesters of elective performing organization

5 credits of music electives (consent of instructor)

### **BACHELOR OF MUSIC**

This program is developed to prepare students for private studio teaching and/or further graduate study for careers in professional performance and college teaching.

#### **Major (80-83)**

Core (64)

MUSM 101, 102, 111, 112, 127, 203, 204, 213, 214, 321, 322, 402

MUSP 270

MUSM Electives: MUSM 303, 401, or 433

2 semesters at 2 credits of applied major

2 semesters at 3 credits of applied major

4 semesters of applied major (upper division)

MUSP 396, 496 (piano pedagogy only - MUSP 396 for 2 cr. or MUSP 496 for 2 cr.)

4 semesters of applied piano (non-pianists) with completion of piano proficiency

OR

4 semesters of applied minor (pianists)

Choose one of the following emphases:

##### **Vocal Performance (19)**

4 semesters of major performing organization

2 semesters of elective ensemble

2 semesters of MUSP 360

MUSE 442, MUSM 242

2 semesters of foreign language

### Instrumental performance (17)

6 semesters of major performing organization

2 semesters of elective ensemble

MUSE 345

7 credits of music electives (recommended: MUSM 303, 401, 421, 433, ensembles or chamber music).

### Piano Performance (16)

4 semesters of major performing organization

3 semesters of elective ensemble or chamber music

MUSE 430, 431; MUSM 436, MUSP 401

### Piano Pedagogy (18-19)

2 semesters of major performing organization

3 semesters of elective ensemble or chamber music

MUSE 430, 431, 477, 478; MUSM 436, MUSP 401; APSY 361 or MUSE 334

### BACHELOR OF SCIENCE

This program is primarily for those interested in teaching music in the elementary and secondary schools. Entering freshmen are encouraged to seek academic advice early regarding specific requirements in order to plan their program efficiently. Entering students with limited background in applied study, piano skills, and/or music theory should elect additional courses to strengthen those skills.

### Major (64)

Core (48)

MUSM 101, 102, 111, 112, 127, 203, 204, 213, 214, 321, 322;

MUSP 270; MUSE 240, 331, 332

2 semesters of applied major

6 semesters of major performing organization

2 semesters of applied piano with completion of piano proficiency

Junior Recital (MUSP 396), co-requisite of 1 semester applied lessons at 300 level or above.

### Vocal Emphasis (16)

4 semesters of applied major (total of 5 credits)

MUSP 372; MUSE 244, 334, 442

2 credits of applied piano

### Instrumental Emphasis (16)

4 semesters of applied major (total of 5 credits)

MUSP 370; MUSE 346, 347, 348, 349

### BACHELOR OF ELECTIVE STUDIES

#### Major (32)

Completion of 32 credits with the approval of the department.

#### Minor (24)

Completion of 24 credits with the approval of the department.

\*MUSM, Music/Musicianship; MUSP, Music Performance; MUSE, Music Education

### COURSE DESCRIPTIONS – MUSICIANSHIP (MUSM)

#### +100. Introduction to Musical Concepts

An introductory study of the language and basic concepts of music.

(Not applicable for credit towards a major/minor program.) 3 Cr. F, S.

#### +101. Theory I.

Western diatonic voice leading and harmonic practices of the 18th and 19th centuries. Introduction of music technology and computer applications. Prereq.: Theory Placement Exam. Coreq.: 111. 3 Cr. F

#### 102. Theory II.

Western chromatic voice leading and harmonic practices of the 18th and 19th centuries. Prereq.: 101. Offered in conjunction with 112. 3 Cr. S.

#### +111. Ear Training Laboratory I.

Develops musicianship through sight-singing, elementary conducting, movement, harmonic dictation, melodic dictation and rhythmic dictation. Coreq.: 101. 1 Cr. F

#### 112. Ear Training Laboratory II.

Develops musicianship through sight-singing, elementary conducting, harmonic dictation, melodic dictation and rhythmic dictation. Prereq.: 111. Offered in conjunction with 102. 1 Cr. S.

#### +123. Experiencing Live Music

Study of the nature of music through listening to live performances and through lectures and discussions relating to these performances. The listening will include live performances in class, on campus and in the community. 3 Cr. F, S.

#### +125. Music in World Culture (MGM)

Comparative study of music and its function within cultures of non-Western countries and various Western folk traditions. Listener's point of view. Cultures surveyed include Oceania, East and Southeast Asia, India, Africa (and some American folk traditions). No previous musical experience required. 3 Cr. F, S.





#### 126. History of Rock and Roll Music

American musical styles including rhythm and blues, rock and roll, country, folk and rock in historical and cultural perspective. 3 Cr. F, S.

#### 127. Introduction to Music Systems

Acoustic properties of music. Comparing and contrasting different music systems in Eastern and Western cultures. Includes a survey of Western music history. 3 Cr. F.

#### 203. Theory III.

Western music practices of the 20th century. Prereq.: 102. Offered in conjunction with 213. 3 Cr. F.

#### 204. Theory IV.

Formal and structural practices of Western music of 18th, 19th and 20th centuries. Develop abilities in analyzing complete movements and works. Prereq.: 203. Offered in conjunction with 214. 3 Cr. S.

#### 213. Ear Training Laboratory III.

Develops musicianship through sight-singing, elementary conducting, harmonic dictation, melodic dictation and rhythmic dictation. Prereq.: 112. Offered in conjunction with 203. 1 Cr. F.

#### 214. Ear Training Laboratory IV.

Develops musicianship through sight-singing, elementary conducting, harmonic dictation, melodic dictation and rhythmic dictation. Prereq.: 213. Offered in conjunction with 204. 1 Cr. S.

#### 229. Jazz History

Jazz music, musicians and the society that created them with emphasis on their relationship to rock and roll and jazz/rock fusion. 3 Cr. F, S.

#### 242. Diction

Basics of French, Italian, German and Latin diction for vocalists and choral directors. Prereq.: 2 semesters of applied voice or permission of instructor. 3 Cr. DEMAND.

#### 303. Composition

Study of writing original compositions through practice and examination of music. Prereq.: 204. May be repeated to a maximum of 9 credits. 1 Cr. F, S.

#### 321. History of Western Music I.

Historical survey of western music history to 1800. Prereq.: 127. 4 Cr. S.

#### 322. History of Western Music II.

Historical survey of western music history from 1800 to the present. Prereq.: 127. 4 Cr. F.

#### 421. Instrumental Literature

Literature for solo, ensemble and chamber music performance by a specific instrument. 2 Cr. DEMAND.

#### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS (MUSM)

#### 401/501. Counterpoint

18th Century contrapuntal practices. Prereq.: 204. 2 Cr. F, ALT.

#### 402/502. 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.

#### 404/504. Pedagogy of Music Theory

A comprehensive review of Western music theory and pedagogic methodology. Prereq.: 204. 2 Cr. F,

ALT.

#### 423/523. Jazz Harmony

A comprehensive study of jazz harmony and its application in 20th century practices. Prereq.: 204. 2 Cr. F.

#### 433/533. 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. ALT.

#### 434/534. Electronic Music II.

Applications of MIDI, synthesis, sampling, and computer based audio and MIDI software to create electronic music. Prereq.: 433/533. 2 Cr. ALT.

#### 436/536. Piano Literature

Survey of western piano literature since 1700. Prereq.: 321, 322. 2 Cr. DEMAND.

#### 468/568. Jazz Improvisation

Improvisation in the jazz style for all instruments. Permission of the instructor. 2 Cr. S.

#### 469/569. Jazz Arranging

Application of practical and theoretical harmony to jazz style and scoring for jazz ensembles. Prereq.: 204. 2 Cr. DEMAND.

#### COURSE DESCRIPTIONS – PERFORMANCE (MUSP)

#### +101. Class Piano I.

Class instruction in piano for students who have had no previous experience at the piano. Fundamentals of music reading and keyboard technique. 1 Cr. F, S.

#### +102. Class Piano II.

Class instruction in piano for students who have limited keyboard experience. Prereq.: 101 or ability to read treble and bass clef, ability to play simple pieces with both hands together. 1 Cr. DEMAND.

#### +103. Class Voice

Class instruction in voice for beginning students. Fundamentals and practical application of vocal techniques. 1 Cr. F, S.

*Courses numbered 110/410 to 148/448 are private lessons for the instrument in the course description, and may be repeated for credit.*

- +110-410. Piano  
1-3 Cr. F, S.
- +112-412. Organ  
1-3 Cr. F, S.
- +114-414. Harpsichord  
1-3 Cr. F, S.
- +116-416. Voice  
1-3 Cr. F, S.
- +118-418. Percussion  
1-3 Cr. F, S.
- +120-420. Violin  
1-3 Cr. F, S.
- +122-422. Viola  
1-3 Cr. F, S.
- +124-424. Cello  
1-3 Cr. F, S.
- +126-426. Brass  
1-3 Cr. F, S.
- +128-428. Guitar  
1-3 Cr. F, S.
- +130-430. Trumpet  
1-3 Cr. F, S.
- +132-432. French Horn  
1-3 Cr. F, S.
- +134-434. Trombone-Baritone  
1-3 Cr. F, S.
- +138-438. Tuba  
1-3 Cr. F, S.
- +140-440. Flute-Piccolo  
1-3 Cr. F, S.
- +142-442. Oboe-English Horn  
1-3 Cr. F, S.
- +144-444. Clarinet-Bass Clarinet  
1-3 Cr. F, S.
- +146-446. Saxophone  
1-3 Cr. F, S.
- +148-448. Bassoon  
1-3 Cr. F, S.

*Courses number 151-157 require two rehearsals per week and permission of the instructor. Courses numbered 151-166, 258, 360 and 401 may be repeated for credit.*

- +151. Vocal Ensemble  
1 Cr. F, S.
- +152. String Ensemble  
1 Cr. F, S.
- +153. Brass Ensemble  
1 Cr. F, S.
- +154. Woodwind Ensemble  
1 Cr. F, S.
- +155. Percussion Ensemble  
1 Cr. F, S.
- +156. Chamber Ensemble  
1 Cr. F, S.
- +157. Jazz Ensemble  
1 Cr. F, S.

**+158. Studio Jazz Band**  
Study and performance organization utilizing standard large jazz band instrumentation and literature from the jazz and popular idioms. By permission only. May be repeated for credit. 1 Cr. F, S.

**+159. World Drumming Group**  
Listening, examination and performance of drumming traditions from a diversity of cultural backgrounds. May be repeated for credit. 1 Cr. F, S.

**+160. University Chorus**  
May be repeated for credit. 1 Cr. F, S.

**+162. Concert Chorus**  
May be repeated for credit. 1 Cr. F, S.

**+164. Wind Ensemble**  
May be repeated for credit. Audition required. 1 Cr. F, S.

**165. Chamber Winds**  
May be repeated for credit. Audition required. 1 Cr. F, S.

**166. Campus Band**  
May be repeated for credit. 1 Cr. F, S.

**167. University Orchestra**  
May be repeated for credit. 1 Cr. F, S.

**258. Chamber Choir**  
Study and performance of chamber choral literature from the Renaissance to the present. Audition required. May be repeated for credit. 1 Cr. F, S.

**270. Conducting I.**  
Basic conducting principles and rehearsal techniques for choral and instrumental literature. Prereq.: MUSM 102, MUSM 127. 3 Cr. F.

**360. Opera Theatre**  
Musical dramatic study of and performance of operatic roles. Consent of instructor. 1-2 Cr. May be repeated to a maximum of 8 Cr. F, S.

**370. Instrumental Conducting and Repertoire**  
The role of the conductor, expressive technique, score preparation, rehearsal techniques, repertoire, programming ideas and administering instrumental music programs. Prereq.: 270. 3 Cr. S.

**372. Choral Conducting and Repertoire**  
Development of advanced conducting skills in choral literature appropriate for secondary school, church and community choirs. Prereq.: 270. 3 Cr. S.

**396. Junior Recital**  
Presentation of one-half or full recital. Co-req.: 1 semester applied lessons at 300 level or above. 1 Cr. F, S.

**496. Senior Recital**  
Presentation of full recital. Coreq.: 1 semester applied lessons at 300 level or above. 2 Cr. F, S.

## COURSE FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS (MUSP)

**401/501. Keyboard Accompanying**  
Discussion and performance of representative keyboard accompaniments. Permission of instructor. 1 Cr. DEMAND.

## COURSE DESCRIPTIONS – MUSIC EDUCATION (MUSE)

**201. Teaching K-8 Music**  
Procedures and resources for classroom teachers. Prereq.: MUSM 100 or consent of instructor. 2 Cr. F, S.

**240. Introduction to Music Education**  
Overview of music programs in the public schools and roles of professional music educators. Reading, observation, and discussion of contemporary trends and practices. Prereq.: MUSM 101. 2 Cr. F.

**244. Introduction to Instruments**  
Basics of string, wind and percussion techniques, acoustics and pedagogy for vocal music education students. Prereq.: MUSM 102. 2 Cr. F, ALT.

**331. Elementary General Music Methods**  
Methods and materials for fostering students' musical growth in the elementary music program. Prereq.: MUSE 240. 3 Cr. F.

**332. Secondary Music Methods**  
Methods and materials for developing students' musical growth through general music and performance classes, grades 5-12. Prereq.: MUSE 331, PPST exam. 3 Cr. S.

**334. Introduction to Methods of Orff and Kodaly**  
Pedagogical techniques of Orff-based and Kodaly-based music education for elementary and middle school. Prereq.: MUSE 331 or MUSE 420. 2 Cr. F.



**345. Instrumental Pedagogy**

Techniques and materials for teaching instrumental performance. Restricted to BM majors. 2 Cr. DEMAND.

**346. String Techniques and Pedagogy**

Techniques and skills for performance. Selection, care and maintenance of instruments, teaching techniques, and instructional materials. 2 Cr. F, ALT.

**347. Brass Techniques and Pedagogy**

Techniques and skills for performance. Selection, care and assembly of instruments, teaching, techniques, and instructional materials. 2 Cr. F, ALT.

**348. Woodwind Techniques and Pedagogy**

Techniques and skills for performance. Selection, care and assembly of instruments, teaching techniques, and instructional materials. 2 Cr. S, ALT.

**349. Percussion Techniques and Pedagogy**

Techniques and skills for percussion performance. Selection of instruments and repertoire, care and maintenance, teaching techniques and rehearsal strategies, and instructional materials for the music educator. 2 Cr. S, ALT.

**477. Practicum in Piano Pedagogy I.**

Utilization of knowledge gained in 430, 431 through practical supervised experience. Prereq.: 430, 431, 334 or APSY 361. 1 Cr. F

**478. Practicum in Piano Pedagogy II.**

Continuation of 477. Prereq.: 430, 431, 334 or APSY 463. 1 Cr. S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS (MUSE)**

**420/520. Early Childhood Music**

Methods and materials for teaching music to children ages two through seven. 2 Cr. DEMAND.

**428/528. 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.

**430/530. Piano Pedagogy I.**

Basic problems and techniques of teaching piano to the elementary and early intermediate student. 3 Cr. F

**431/531. Piano Pedagogy II.**

Basic problems and techniques of teaching piano to the late intermediate and advanced student. 3 Cr. S.

**442/542. Vocal Pedagogy**

Basic techniques in the teaching of voice including the young voice. Survey of procedures and materials. 2 Cr. F

**483/583. Workshop: New Music Materials Clinic**

Participation in clinic and music reading sessions at the Schmitt Music New Music Materials Clinic. May be repeated, maximum 1 credit toward a degree program. 1 Cr. SUM. (registration shows as Fall through Continuing Studies).

**489/589. Workshop: Minnesota Music Educators Clinic**

Participation in clinic and workshop sessions at Minnesota Music Educators Association Mid-Winter Clinic. May be repeated. Maximum of 1 Cr. toward a degree program. 1 Cr. S.

**NUCLEAR MEDICINE TECHNOLOGY (NMDT)**

273 MATHEMATICS AND SCIENCE CENTER/ 255-3130

*An allied health program. Also see individual program description in this bulletin for medical technology and radiological technology.*

**Coordinator** Judith Torrence.

The Bachelor of Science degree in nuclear medicine technology requires a prescribed, three year, curriculum at St. Cloud State University followed by clinical coursework at an affiliated school of nuclear medicine technology. The professional coursework includes lectures and laboratory experiences in the areas of nuclear physics, radioisotope measurements, nuclear medicine, imaging cameras, technical evaluation of nuclear medicine procedures and a clinical nuclear medicine practicum. Upon completion of the clinical coursework, students are eligible to take national certification exams.

Students may apply to the major program when their completed credits equal or exceed 24 semester credits, including BIOL 151 and CHEM 210 with a grade point average of 2.5 or higher. At least eight credits must have been earned in residence at St. Cloud State University. It is suggested that students apply for the major as early as possible to ensure a timely plan for completing the required courses and securing a seat in a clinical program.

Admission to the major does not imply automatic acceptance into a clinical program. Acceptance by the clinical affiliates is competitive. Applications are made in September, approximately one year prior to the starting date of the clinical program. Specific information regarding the application process, the recommended grade point average and the details of each affiliate's program is available through the nuclear medicine technology director's office. Students must complete all core and general education requirements before beginning the clinical phase.

Current affiliated schools of nuclear medicine technology are at the Mayo School of Health-Related Sciences in Rochester, MN, St. Luke's Medical Center and Froedtert Memorial Lutheran Hospital, both in Milwaukee, WI.

**Core Requirements (55)**

BIOL 151, 262, 264, 366, 478, 486  
CHEM 210, 211, 240, 241, 452  
PHYS 231, 232; MATH 104

*Note: Nuclear Medicine Technology students are not required to take BIOL 152-Organismal Diversity as a prerequisite to BIOL 262-Genetics.*

**Clinical Phase Requirements (32)**

NMDT 401, 403, 405, 407, 409, 411, 412, 413, 415, 417, 419, 421, 423, 427

**COURSE DESCRIPTIONS**

**401. Hospital Orientation**

Hospitals administrative procedures including medical terms and medical ethics. Prereq.: acceptance into a hospital program. 1 Cr. F, S, SUM.

**403. Anatomy, Physiology, and Pathology.**

Anatomy, physiology, and pathology of the human organ systems treated in nuclear medicine. Prereq.: acceptance into a hospital program. 2-4 Cr. F, S, SUM.

**405. Radiation Protection**

Properties of alpha, beta, and gamma radiation, their effects on human beings and methods for protecting patients and staff from unnecessary exposure and possible injury. Lab. Prereq.: acceptance into a hospital program. 1-2 Cr. F, S, SUM.

**407. Clinical Instrumentation and Techniques**

Structure, operating characteristics, and practice in use of nuclear radiation detection instruments and radioisotope handling devices used in medical diagnosis and therapy. Prereq.: acceptance into a hospital program. 1-4 Cr. F, S, SUM.

**409. Mathematical Evaluation of Clinical Data**

Variations in results depending on the choice of radionuclide, instrument, and patient. Lab. Prereq.: acceptance into a hospital program. 1-2 Cr. F, S, SUM.

**411. Records and Administrative Procedures**

Records and procedures required by federal, state and professional regulatory agencies to insure proper: 1) acquisition, handling, application, storage, and disposal of radioactive materials; 2) awareness of radiation dosages received by patient and staff and 3) functioning of detection equipment. Lab. Prereq.: acceptance into a hospital program. 1 Cr. F, S, SUM.

**412. Clinical Nuclear Practicum I.**

Supervised use of radionuclides in imaging and scanning of patients for diagnostic purposes. Lab. Prereq.: acceptance into a hospital program. 3-9 Cr. F, S, SUM.

**413. Clinical Nuclear Practicum II.**

Supervised use of radionuclides in vitro and in vivo in patients for diagnostic purposes. Lab. Prereq.: acceptance into a hospital program. 3-9 Cr. F, S, SUM.

**415. Application of Radionuclides to Medicine**

Radionuclides and the compounds into which they are formed that are useful in medical research, diagnosis, and therapy. Prereq.: acceptance into a hospital program. 1-3 Cr. F, S, SUM.

**417. Nuclear Radiation Physics**

Properties of alpha, beta, and gamma radiations; their origins and interactions with matter; their control and shielding; the statistics of counting. Lab. Prereq.: acceptance into a hospital program. 1-4 Cr. F, S, SUM.

**419. Clinical Radiation Biology**

Cellular and organ responses to radiation sources and radionuclides in nuclear medicine. Lab. Prereq.: acceptance into a hospital program. 1-2 Cr. F, S, SUM.

**421. Therapeutic Radionuclides**

Chemical, physical, and biological properties of the radionuclides used in diagnosis and therapy. Prereq.: acceptance into a hospital program. 1 Cr. F, S, SUM.

**423. Nuclear Medicine Chemistry**

The radiopharmacology and chemistry of radionuclides used in the clinical laboratory. Lab. Prereq.: acceptance into a hospital program. 1-3 Cr. F, S, SUM.

**427. Application of Computers to Nuclear Medicine**

Data collection, data reduction and data enhancement by computer methods. Lab. Prereq.: acceptance into a hospital program. 1-4 Cr. F, S, SUM.

**PHILOSOPHY (PHIL)**

123 BROWN HALL/255-2234

Also see *Fine Arts and Humanities description and requirements*.

**Chairperson** John Bahde. **Faculty:** M.G. Anderson, Bahde, Boyer, Cumutt, Dienhart, Gill, Hartz, C. Johnson, Steup, Swank, J. White.

Philosophy is an ongoing conversation about our deepest human concerns, such as how to live and act well, the existence of God, the possibility of knowledge and the nature of reality. We invite you to join this conversation in our classes and in other less formal settings.

**BACHELOR OF ARTS**

The philosophy major and minor cover topics and philosophers from classical Greece to the present. This course of study is designed to develop one's philosophical skills and to familiarize one with the history of philosophy, issues in ethical and value inquiry and topics in metaphysics and epistemology.

An interdisciplinary philosophy major or minor, which integrates philosophy and non-philosophy courses, is individually constructed to fit in with your other major or minor. Philosophy can serve as an excellent support to majors in the fine arts and humanities, social and natural sciences, technology and business.

**Philosophy Major (36)**

PHIL 201-202, 251, 301-303, 451, five more of 203-484\*

\*For Interdisciplinary Philosophy Major, substitute (adviser approved) non-philosophy courses for up to four of these five electives.

**Philosophy Minor (18)**

PHIL 201 or 202, 251, two of 301-303, two more of 201-484\*

\*For Interdisciplinary Philosophy Minor, substitute (adviser approved) non-philosophy courses for either or both of these electives.

Students are encouraged to plan courses with a philosophy adviser even before officially declaring a major or minor. Further program information, including a long-range class schedule, is available at the department office, 123 Brown Hall.

**Prerequisites for:**

111-194: None

201-251: One of 111-194

301-303: 251

401-451: 251 and two of 201-202 or 301-303

481-484: None

**COURSE DESCRIPTIONS****+111. Multicultural Philosophy (MGM)**

Reality, knowledge and value, from the perspectives of various African, Arabic, European, East Asian, South Asian and/or Native American cultures. 3 Cr. F, ALT.

**+112. Philosophy and Feminism (MGM)**

The ways in which philosophical and feminist thinking enhance one another. A variety of perspectives, including race, class and culture. 3 Cr. S, ALT.

**+113. Science and Human Values**

Values that underlie an issue from science, technology, and their public application. Science and education, technology and gender roles, technology in developing nations. 3 Cr. F, ALT.

**+114. Theories of Human Nature**

Metaphysical, moral, scientific and religious implications and presuppositions of views of human nature. Free will, rationality, essentialism, egoism vs. altruism and nature vs. nurture. 3 Cr. S, ALT.

**+115. Ethics: Theory and Practice**

Ethical theories and their application to moral problems such as abortion, euthanasia and animal rights. 3 Cr. F, S, SUM.

**+194. Critical Reasoning**

Reasoning about human values, human knowledge and our place in the scheme of things. Conceptual analysis, identifying and analyzing arguments, and recognizing fallacious reasoning. 3 Cr. F, S, SUM.

**201. History of Western Philosophy I**

Ancient and Medieval Philosophy: The Presocratics, Plato, Aristotle, Hellenistic and Roman philosophers, Augustine and Aquinas. Prereq.: One of 111-194. 3 Cr. F

**202. History of Western Philosophy II**

Western Philosophy from the Renaissance, through Descartes and the Rationalists, Hume and the Empiricists, and Kant. Prereq.: One of 111-194. 3 Cr. S.

**203. History of Western Philosophy III**

German Idealism, Schopenhauer, Marxism, Nietzsche, Post-Humean British Empiricism, British Idealism, Pragmatism, Analytic Philosophy. Prereq.: One of 111-194. 3 Cr. F, ALT.

**204. Social and Political Philosophy**

Classical theorists such as Plato, Aristotle, Hobbes, Locke, Rousseau and Marx. Libertarian, feminist, communitarian and liberal social theories. Prereq.: One of 111-194. 3 Cr. S, ALT.

**205. Philosophy of Religion**

The existence of God, the problem of evil, the nature and justification of religious beliefs, religious diversity and the role of faith, revelation and science. Prereq.: One of 111-194. 3 Cr. F, ALT.

**206. Existentialism**

Kierkegaard, Nietzsche, Heidegger and Sartre on the human subject. Existential phenomenology, knowledge, truth, freedom, personal relations, authenticity and value. Prereq.: One of 111-194. 3 Cr. S, ALT.

**251. Symbolic Logic**

Basic logical concepts: validity, necessity, possibility and consistency. Natural deduction for sentence and predicate logics. Introduction to modal and many-valued logics. Prereq.: One of 111-194. 3 Cr. F, S.

**301. Ethics**

The nature of morality. Theories of right action and the good person. The good life, facts and values, relativism, metaethics and relations between morality, religion and social attitudes. Prereq.: 251. 3 Cr. F.

**302. Metaphysics**

The nature of reality. God, the self, matter, mind, substance, modality, universals, free will, time, change, survival, death, and realism vs. anti-realism. Prereq.: 251. 3 Cr. S.

**303. Epistemology**

The nature, value and possibility of knowledge and justified belief. Sense perception, the a priori, skepticism, foundationalism, coherentism, internalism, externalism and naturalism. Prereq.: 251. 3 Cr. F.

**451. Senior Seminar**

Study of a single philosopher, problem or special topic. Prereq.: 251 and two of 201-202 or 301-303. 3 Cr. S.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDIES

**401/501. Topics in Ethics**

Study of one or several of the topics introduced in PHIL 301. Prereq.: 251 and two of 201-202 or 301-303. 3 Cr. S, ALT.

**402/502. Topics in Metaphysics**

Study of one or several of the topics introduced in PHIL 302. Prereq.: 251 and two of 201-202 or 301-303. 3 Cr. F, ALT.

**403/503. Topics in Epistemology**

Study of one or several of the topics introduced in PHIL 303. Prereq.: 251 and two of 201-202 or 301-303. 3 Cr. S, ALT.

**404/504. Topics in the History of Philosophy**

Study of a particular philosophical movement, individual philosopher, or the evolution of a philosophical concept. Prereq.: 251 and two of 201-202 or 301-303. 3 Cr. F, ALT.

**405/505. Aesthetics**

The nature and value of art, beauty, creativity, aesthetic experience and critical judgment. Prereq.: 251 and two of 201-202 or 301-303. 3 Cr. F, ALT.

**406/506. Philosophy of Mind**

The nature of conscious intelligence. The relation between the mind and the body, artificial intelligence, knowledge of other minds. Prereq.: 251 and two of 201-202 or 301-303. 3 Cr. S, ALT.

**407/507. Philosophy of Science**

The nature of science. Carnap, Popper, Kuhn and others on scientific explanation, induction, scientific realism, objectivity and relativism. Prereq.: 251 and two of 201-202 or 301-303. 3 Cr. F, ALT.

**408/508. Philosophy of Language**

Meaning, reference, translation and indeterminacy, the analytic/synthetic

distinction, speech act theory and theories of truth. Prereq.: 251 and two of 201-202 or 301-303. 3 Cr. S, ALT.

**481/581. Professional Ethics**

The concept of a profession and the relationships that constitute professional activity. Confidentiality, privacy, consent, whistle blowing, professional codes of ethics and social responsibility. 3 Cr. F.

**482/582. 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.

**483/583. 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.

**484/584. International Business Ethics**

Personal, organizational, and nationalistic issues in international business. Relativism, corporate responsibility for the environment, bribery and the use of Third World labor. 3 Cr. S, ALT.



# PHYSICS (PHYS), ASTRONOMY (ASTR) AND ENGINEERING SCIENCE (ENGR)

324 MATHEMATICS AND SCIENCE CENTER/255-2011

Also see *College of Science and Engineering description and requirements*.

**Chairperson** David A. Jerde. **Faculty:** R. Brundage, Dalton, Garrity, Harlander, Jerde, S. Kalia, Leskar, Nook, W. Pou, R. Schoenberger, Womack.

Physics is a human activity dedicated to observing nature and to organizing these observations in the form of fundamental concepts. These concepts form the foundation upon which the important principles of the other sciences are based. Consequently, some physics is required in many of the pre-professional programs and other science programs. To accommodate the various backgrounds and needs of students in these various programs, the physics department offers a wide variety of introductory courses ranging from courses which use only elementary high school algebra and up through courses which require calculus.

High school algebra and trigonometry (MATH 072 and 113) are prerequisites for students majoring or minoring in physics or in a pre-engineering science program. Admission to any of the physics majors or minors requires a 2.5 grade point average in all PHYS, ASTR, and ENGR courses (with the exception of general education courses), completion of PHYS 235, and a 2.5 overall grade point average.

A pre-professional engineering science program is offered for those who wish to pursue a career in engineering. Students who have an adequate high school preparation in mathematics and science can take two years at St. Cloud State University and then the final work at a college of engineering. For further description and requirements please see the section on pre-professional programs.

## BACHELOR OF SCIENCE

### Physics Core Courses (67-68)

PHYS 234(5), 235(5), 328(3), 329(3), 333(3), 338(4), 346(3), 430(2), 431(3), 440(4), ENGR 332(3), 334(3) MATH 221(5), 222(4), 312(4), 321(4), 325(3), CHEM 210(4); CSCI 260(2) or EE 102(3)

### Physics Comprehensive Major (76-77)

Students may complete the 76-77 credit major by taking all of the core courses above, plus at least 9 credits from one of the tracks listed below, but no more than 3 credits of PHYS 415.

**Professional Physics Track;** PHYS 415, 450-455; ENGR 335; MATH 427.

**Astrophysics Track;** PHYS 415, ASTR 311, 312, 323, 427; ENGR 447, MATH 427; ESCI 429, 435. At least 6 credits must be ASTR.

**Engineering Science Track;** PHYS 415; ENGR 241, 335, 341, 425; EE 201.

**Mathematics Physics Track;** PHYS 415, 450-455; MATH 423, 427, 461.

**Electro-optics Track;** PHYS 445 and at least six credits from the following: PHYS 415, 435, 436; ENGR 425, 447.

**Self Selection Track;** At least 9 credits selected under the supervision of the physics major adviser. Courses must be selected from departments within the College of Science and Engineering.

### Physics Minor (34)

PHYS 234, 235, 328, 329, 430; ENGR 332; MATH 221, 222; PHYS, ASTR or ENGR electives (4)

### Optics Minor (34-35)

Required courses: MATH 221, 222; PHYS 234, 235, 333; ENGR 332 or EE 381. Three elective courses chosen from the following list: EE 391

or PHYS 338; PHYS 425, 435, 436, 445; ENGR 447. Not available to physics majors.

## BACHELOR OF SCIENCE-PHYSICS TEACHING

The following program meets the State of Minnesota requirements for teaching physics in grades 9-12. Students planning to become licensed to teach physics should contact an adviser at the earliest opportunity.

PHYS 234, 235, 328, 329, 430 or 415; ENGR 332; BIOL 151; ESCI 220; CHEM 210; MATH 221, 222; SCI 321, 322, 430, 440; plus two of the following three courses: ASTR 205, PHYS 333, ENGR 334.

## BACHELOR OF ELECTIVE STUDIES

### Major (56)

PHYS 234, 235, 328, 329, 430; MATH 221, 222, 312; CHEM 215.

One additional 3 Cr. course at the 300 level or higher from PHYS, ASTR, or ENGR; 18 additional elective credits, selected under the supervision of a physics major adviser from courses at the 200 level or above in the College of Science and Engineering.

## COURSE DESCRIPTIONS - ASTRONOMY

### +106. Concepts of the Solar System

The appearance of the sky, constellation identification, history of astronomy, planetary motion, physical properties of planets, the moon, sun, and minor bodies, telescopes. The planetarium will be used as an integral part of this course. Lab. 3 Cr. F, S, Sum.

### +107. Concepts of Stars and the Universe

Scale of the universe; distance, structure, and evolution of stars; the Milky Way and other galaxies; cosmology, life in the universe. 3 Cr. F, S.

### +120. Archaeoastronomy (MGM)

Comparative study of the astronomies, cosmologies, and sciences of ancient civilizations. How the physical environment affected observations. Connections between science and religion. Five to ten days will be spent at an archaeological site of astronomical significance. Extra Fees. 3 Cr. S.

### +205. General Astronomy

Basic properties and physical processes of the solar system, stars, and stellar systems. Lab. Prereq.: PHYS 231 or 234. 4 Cr. F

### 311. Solar System Astronomy

Physical processes in the solar system. Application of physics to the study of the motions, atmospheres, structure, and composition of bodies in the solar system. Prereq.: PHYS 235. 3 Cr. F, ALT.

### 312. Stellar Astronomy

Physical processes in stars and stellar systems. Stellar astronomy and applications of physical principles. Prereq.: PHYS 235. 3 Cr. S, ALT.

### 323. Observational Astronomy

Modern astronomical observing techniques and instrumentation. Coordinate systems, telescope design, detector systems, error analysis, photometry, spectroscopy, and imaging. Lab. Prereq.: PHYS 235. 3 Cr. F, ALT.

### 427. Galactic Astronomy and Cosmology

Galactic structure and kinematics; the basic principles of cosmology. Prereq.: PHYS 235. 3 Cr. S, ALT.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 405/505. 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. Student will create and perform a planetarium program. Prereq.: ASTR 311 or equivalent or consent. 1 Cr. DEMAND.

### 421/521. Selected Topics in Astronomy

Lectures, readings and/or discussion on selected topics in astronomy,

astrophysics, or planetary science. May be repeated to maximum of 6 credits. 1-3 Cr. DEMAND.

**485/585. 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.

**COURSE DESCRIPTIONS – ENGINEERING**

**241. Statics**

Vectors, forces, systems of forces and moments, trusses, frames, machines, centroids, moments of inertia, distributed forces, dry friction. Prereq.: PHYS 234; MATH 222 or concurrent registration in MATH 222. 3 Cr. F

**332. Electronics**

DC and AC circuit theorems and analysis, operational amplifiers, rectifiers, power supplies, semiconductors, diodes, and transistors. Lab. Prereq.: PHYS 235 and admission to a major program. 3 Cr. F

**334. Thermodynamics**

Temperature, work, heat, and entropy; first-law analysis of closed and open systems; ideal gas, pure substances; applications of the second law; Maxwell's relations. Prereq.: PHYS 235, 328 or concurrent registration in 328; MATH 222. 3 Cr. S.

**335. Digital Electronic Measurements**

Combined use of transducers and microprocessors to make physical measurements. Lab. Prereq.: ENGR 332, MATH 222. 2 Cr. DEMAND.

**341. Dynamics**

Rectilinear and curvilinear motion, Newton's laws, orbital mechanics, kinetics and dynamics of particles and rigid bodies, energy methods, momentum methods, vibrations. Prereq.: ENGR 241; MATH 222. 3 Cr. S.

**425. Optical Communication**

Principles of optical fiber communication systems, including optical properties of fibers, sources and detectors for communication systems, and network system design. Lab. Prereq.: ENGR 332 or EE 311. 3 Cr. S.

**447. Optical Design**

Computer-aided design of optical systems, aberration theory, optical materials, optical systems, tolerancing for manufacture. Prereq.: PHYS 333. 3 Cr. F, ALT.

**COURSE DESCRIPTIONS – PHYSICS**

*Note: Students taking any of the sequence courses (I-II) must earn a grade of "C" or better to be admitted to the next course in the sequence.*

**100. Preparatory Physics**

Prepares students who lack proper high school experience to take PHYS 231 or 234. Basic mathematical tools, physical principles, and problem solving techniques. Prereq.: High school algebra or MATH 072. 3 Cr. DEMAND.

**+101. Famous People of Science**

The development of scientific method and current scientific outlook as illustrated by the lives and times of Aristotle, Galileo, Newton, Einstein, Curie, and others. 3 Cr. F, ALT.

**+103. Concepts in Physics**

A thematic presentation of ideas, thought, and experimentation in physics. Topics from classical mechanics, sound, light, electricity, magnetism, thermodynamics, relativity, structure of matter. Not open to those who have taken PHYS courses other than general education at the 200-level or above. Lab. 3 Cr. F, S.

**+208. Energy and Environment**

Energy forms, resources and conversions. Past and present patterns of energy use. Projections of future demand and supplies of energy. Resources and technologies of future energy alternatives. Environmental problems and conservation strategies associated with energy use. 3 Cr. S.

**231. General Physics I.**

Vector algebra; kinematics and dynamics of uniformly accelerated motion; static equilibrium; work and energy; linear momentum; rotational work, energy, and momentum; elasticity; fluid statics and dynam-





ics; heat, temperature and thermal energy; kinetic theory of gases; heat transfer; laws of thermodynamics. Lab. Prereq.: MATH 072 or high school algebra. 4 Cr. F, S, SUM.

#### 232. General Physics II.

Hooke's law; simple harmonic motion; waves, standing waves, sound; electric forces and fields; electric potential; capacitance; resistance; DC circuits; magnetic forces and fields; induced EMF; inductance; impedance; AC circuits; E-M waves; geometric optics; wave optics; optical devices. Topics from modern physics. Lab. Prereq.: PHYS 231. 4 Cr. F, S, SUM.

#### 234. Classical Physics I.

Newton's laws of motion; work and energy; linear momentum; rotational motion; gravity; equilibrium and elasticity; periodic motion; fluid mechanics; temperature, heat and thermal properties of matter; laws of thermodynamics. Lab. Co-req.: MATH 221. 5 Cr. F, S.

#### 235. Classical Physics II.

Waves, normal modes, and sound; electrical force, fields, and potentials; capacitance and dielectrics; current and resistance; DC circuits; magnetic forces and fields; induction, AC current; E-M waves; geometric and wave optics; optical instruments. Lab. Prereq.: Grades of C or better in MATH 221 and PHYS 234. Co-req.: MATH 222. 5 Cr. F, S.

#### 328. Modern Physics I.

Photons, Bohr-Rutherford model of the atom, wave-particle duality, Schrodinger equation, hydrogen atom wave functions, many-electron atoms, Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein statistics. Prereq.: PHYS 235; MATH 222. 3 Cr. F, S.

#### 329. Modern Physics II.

Special relativity, molecular bonding, quantum theory of solids, nuclear structure, radioactivity, nuclear reactions, elementary particles. Prereq.: PHYS 328 and admission to a major program. 3 Cr. S.

#### 333. Optics

Refraction, geometrical optics, optical instruments, diffraction, interference, polarization, and other aspects of physical optics. Lab. Prereq.: PHYS 235, MATH 222. 3 Cr. F.

#### 338. Electromagnetic Fields

Static electric fields, steady currents, static magnetic fields, time-dependent fields, Maxwell's equations, plane electromagnetic waves. Prereq.: PHYS 235, 346, MATH 325. 4 Cr. S, ALT.

#### 346. Applications in Theoretical Physics

Applications of matrix methods to linear physical systems; applications of vector calculus to 3-dimensional physical systems. The method of series solutions applied to physical wave equations, applications of complex numbers and of Fourier and Laplace transforms. Prereq.: PHYS 235. 3 Cr. F, S.

#### 415. Undergraduate Research

Independent experimental or theoretical research under staff supervision. Recommended to all undergraduate physics majors. Prereq.: Admission to major and consent of department. May be repeated. 1-3 Cr. DEMAND.

#### 420. Seminar

Lectures, readings, discussion on selected topics. May be repeated. 1-3 Cr. S, ALT.

#### 430. Advanced Physics Laboratory

Experiments relating to topics studied in upper-level physics courses. Prereq.: PHYS 328 or concurrent registration in 328. May be repeated. 2 Cr. F.

#### 431. Introduction to Quantum Mechanics I.

The Schrodinger wave equation in differential equation, Dirac, and matrix notation. Application to fundamental systems including the harmonic oscillator, potential barriers, spin, and the hydrogen atom. Prereq.: PHYS 329, 346. 3 Cr. F, ALT.

#### 440. Classical Mechanics

Single particle Newtonian dynamics, Lagrangian methods, central force motion, systems of particles, non-inertial reference frames, dynamics of rigid bodies, oscillations and normal modes. Prereq.: PHYS 235, 346. 4 Cr. S, ALT.



#### 445. Electro-optics

E-M waves in anisotropic materials; electro-optic, acousto-optic and nonlinear optical effects; semiconductor light sources and detectors. Lab. Prereq.: PHYS 333, 338 or EE 391. 3 Cr. F, ALT.

#### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 435/535. 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.

#### 436/536. Advanced and Fourier Optics

Multilayer dielectric films, Fresnel reflection and diffraction, applications of Fourier optics. Lab. Prereq.: PHYS 333. 3 Cr. S, ALT.

#### 450-455/550-555. Special Topics in Physics.

Courses designed for intensive study of important topics in basic and applied physics. Topics will be selected from relativity, medical physics, biomedical engineering, or other topics chosen by the instructor to meet a specific demand. Prereq.: PHYS 235 and consent of the instructor. 1-3 Cr. May be repeated up to a maximum of 6 credits. DEMAND.

#### 456/556. Methods and Materials for Teaching Physical Science

Modern techniques and curricula for teaching secondary school physical science. 3 Cr. F, S.

#### 476/576. 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.

#### 486/586. Workshop: Holography

Basic principles of holography. Constructing simple holographs. 1 Cr. DEMAND.

## POLITICAL SCIENCE (POL)

329 BROWN HALL/255-2162

*Also see College of Social Sciences description and requirements.*

**Chairperson** Homer Williamson. **Faculty:** Bodelson, Frank, Gold-Biss, Grube, Haniff, E. Jones, Kilkelly, Wagner, Williamson.

The international relations major and minor, and the public administration major and minor are also programs of the department. Students interested in those programs should consult the individual program description in this bulletin.

### BACHELOR OF ARTS

#### Political Science Major (39)

Required: POL 101, 111, 201, 251 and 429.

One course in American government (300- or 400 level).

One course in comparative government (300- or 400 level).

One course in international relations (300- or 400 level).

One course in political theory (300- or 400 level)

For a current list of courses that fulfill each of the above distribution areas see the Department of Political Science office

Electives: 12 Cr.

Any POL course not used to meet the above requirements may be used as an elective, with the following exceptions: a maximum of 6 credits from POL 444 and up to 3 credits of independent study as survey director may be earned. A maximum of 3 credits may be used from non-departmental offerings, including the following ECON courses (350, 360, 460, 461, 474, 478, 483), and other courses by petition and with the approval of the department. Selection from other courses must be included with the initial major application accompanied by a reason for the request showing how the proposed course relates to the political science major.

A student must pass POL 101 and 111 with a grade of "C" or better before admission to the major. Only courses with a grade of "C" or better may be counted toward the major. At least 24 credits must be taken at the 300- level or above.

A student may apply to the departmental chairperson to pursue the departmental honors program. Upon successful completion of this, a notation of departmental honors will appear on the transcript at graduation. The departmental honors program requires (a) a cumulative grade point of at least 3.25 in the total university program and 3.5 in the major; (b) a senior project through an honors independent study course (3 credits toward the major); and (c) passage of an oral exam on the senior project. See departmental chairperson for detailed procedures. Majors in all three programs, international relations, political science, and public administration, must meet the same basic requirements for honors.

#### Political Science Minor (18)

POL 101, 111, 251

One course in American government (300- or 400 level).

One course in comparative government or one course in international relations (300- or 400 level)

One course in political theory (300- or 400-level)

For a current list of courses that meet each of the above distribution areas, see the Department of Political Science office.

A student must pass POL 101 and 111 with a grade of C or better to be admitted to the minor. Only courses with a grade of C or better may be counted toward the minor.

Students will normally take POL 101 and 111 in the freshman year and take 201 and 251 in the sophomore year. Majors and minors normally should take all required core lower level courses before registering for 300- and above courses in the major or minor. Students will normally take the capstone course (429) in the last semester of attendance.

### BACHELOR OF SCIENCE

#### Major (Teaching)

SCSU offers a variety of majors that lead to social studies licensure in Minnesota. For full description of requirements see Social Science and Social Studies in this bulletin.

#### Social Studies Major

##### Political Science Emphasis (27)

Political Science Core:

POL 101, 111, 212, 251, 311, 492; Democratic Citizenship course.

One course in comparative government (300/400). 3 Cr.

One course in political theory (300/400). 3 Cr.

Once course in international relations (300/400). 3 Cr.

### COURSE DESCRIPTION

#### +101. Political Ideas and Institutions

Comparative analysis of the major philosophies, institutions, and processes of government. 3 Cr. F, S.

#### +111. Introduction to American Government

Functions of three branches of U.S. national government. Participation of the people in democratic processes of government. Prereq. to all other American Courses in political science. 3 Cr. F, S, SUM.

#### 201. Political Science Research Methods

Introductory concepts and methods for studying government, planning research, accessing sources, presentation of research, and term papers. Integrated Lab. Prereq.: any 100-level POL course. 3 Cr. F, S.

#### 212. State and Local Government

Sub-national politics in its social, ideological, and federal setting. Covers both formal structure and political process. Focuses on the individual's role. Prereq.: 111. 3 Cr. F, S.

#### +251. Introduction to World Politics

The nation-state: national power; and restraints on national power such as international law and organization. 3 Cr. F, S.

#### 311. Minnesota Politics

Examination of formal structures, citizen participation, and major decision-making bodies. Some attention to local government. Prereq.: 212 or consent of instructor. 3 Cr. ALT.

#### 313. Metropolitan Area Government

Government forms and political activities in large urban areas. Shows relationship between politics and such problems as transportation, crime, race, metro reform. Prereq.: 111. 3 Cr. ANNUAL.

#### 316. The Vietnam Era in U.S. Foreign Policy

Political decisions which led to U.S. involvement, the political process which produced these decisions, and the legacy for U.S. foreign policy. Prereq.: 111 or 251 or permission of instructor. 3 Cr. ANNUAL.

#### 331. Governments of Western Europe

Comparison of governmental organization and processes in nations of Western Europe, United Kingdom, France, West Germany and Italy. 3 Cr. ALT.

#### 332. Politics of Russia and the Successor States

National integration, political culture, government institutions and patterns of administration, along with the foreign policy of the nations of the former Soviet Union. 3 Cr. ANNUAL.

#### 333. Latin American Government and Politics

Political behavior and institutions in countries of Latin America with emphasis on Argentina, Brazil, Chile, Mexico and Cuba. 3 Cr. ANNUAL.

#### 334. Middle East Government and Politics

Political behavior and institutions in countries of the Middle East. 3 Cr. ALT.

#### 336. Asian Government and Politics

Political behavior and institutions in countries of East and South Asia with emphasis on Communist China, Japan and India. 3 Cr. ALT.

#### +337. Emerging Political Issues in the Nonwestern World (MGM)

Analysis of political implications of emerging issues in the nonwestern

world. 3 Cr. ALT.

**338. Politics of Eastern Europe**

Political development, national integration, political culture, government institutions and patterns of administration of the countries of East Central and South Eastern Europe. 3 Cr. ALT.

**339. Comparative Federalism: U.S.-Canada**

The government of Canada: its political structure, theories of politics, and political culture. Comparison with similar institutions, theories, and culture in the U.S. Special attention will be focused on the operation of the respective federal systems. Prereq.: 111. 3 Cr. ALT.

**351. U.S. Foreign Policy**

The formulation of U.S. foreign policy. Trends in foreign policy and the effects these decisions have on domestic politics. Prereq.: 111 or 251 or permission of instructor. 3 Cr. ANNUAL.

**353. Theories of International Politics**

Theories and research methods relating to international politics and behavior. Major theoretical themes in current research and scholarship. Prereq.: 251 or consent of instructor. 3 Cr. ALT.

**361. Western Political Thought**

Evolution of western political thought with a particular emphasis on the modern liberal-conservative mainstream and on the attacks on this mainstream from the left and right extremes. 3 Cr. ALT.

**380. Public Administration**

Introduction to administrative processes with special emphasis on the political role and setting of public agencies. Prereq.: 111. 3 Cr. F, S.

**391. Introduction to Law**

Origin, type, and the structure of law, legal profession; legal research; elements of the legal system; administrative process; criminal process; civil and criminal law. Prereq.: 111. 3 Cr. ALT.

**429. Senior Seminar**

Capstone course surveying major learning experience; addresses career discipline issues. Prereq.: 90 Cr. all 100-200 major core courses. 3 Cr. F, S.

**444. Internship**

Supervised research and training opportunities provided by government agencies or political groups. Maximum of 9 credits toward major and 3 credits toward minor. Public administration majors must take 9 credits. Prereq.: permission of political science intern director.

Applications must be made no later than third week of the semester prior to the semester of internship. 3-9 Cr. F, S, SUM.

**487. Administration of the Nonprofit Organization**

Examines philosophical underpinnings, concepts and principles of nonprofit organizations, emphasizing history, philosophical foundations, and influence of government policies and internal governance. Prereq.: 111. 3 Cr. ALT.

**488. Health Administration**

Prepares students who plan to take the licensure examination to become extended care facility administrators. Capstone course for the health administration track of the public administration program. Covers issues related to the care of the elderly who are institutionalized. Prereq.: 201, 380; GERO 208, GERO 411, or instructor's permission. 3 Cr. DEMAND.

**489. Public Management**

Analysis of advanced public management techniques. Problems of implementing techniques. Practical case problem solving and class participation stressed. Limited enrollment. Prereq.: Public administration major or minor and permission of instructor. 3 Cr. S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

*Students taking the courses for graduate credit must do additional advanced reading and substantial written assignments.*

**411/511. The Presidency**

Presidential selection, the leadership role of the presidency, legislative involvement, relations with the media and the American public, the

president as party leader, and relationships between members of the executive branch. Prereq.: 111. 3 Cr. ANNUAL.

**412/512. Legislative Process**

Legislative functions, elections, process, influence on decision making and problems. Prereq.: 111 or permission of instructor. 3 Cr. ALT.

**413/513. Judicial Process**

The structure, process and personnel of American courts with particular emphasis on the role of the U.S. Supreme Court in the American political system. Prereq.: 111. 3 Cr. ALT.

**451/551. International Law**

Survey of the 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.

**452/552. United Nations and Regional Organization**

Organization, authority, achievements and problems of the United Nations and its auxiliary components. Prereq.: 251. 3 Cr. ALT.

**454/554. 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). Prereq.: 251 and 353 or consent of instructor. 3 Cr. ALT.

**463/563. American Political Thought**

The philosophy and theories which underlie the American system of democratic government. Prereq.: 111. 3 Cr. ALT.

**465/565. Modern Ideologies**

Fascism, communism and ideas which have contributed to democratic thought. 3 Cr. ALT.

**470/570. Public Opinion and Electoral Behavior**

Nature of public opinion and major influences on it. Elections, parties, measurement, and impact. Integrated Lab. Prereq.: 111 or permission of instructor. 3 Cr. ALT.

**481/581. Administering Public Policy**

Study of the initiation, content, administration and impact of selected contemporary domestic government policies: transportation, consumerism, environment, poverty. Prereq.: 111. 3 Cr. ANNUAL.

**482/582. Public Personnel Administration**

Examines personnel management in the public sector including recruitment, employee rights, collective bargaining, affirmative action and employee conduct. Prereq.: 111. 3 Cr. ANNUAL.

**483/583. 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.

**484/584. Public Budgeting**

Budgeting in public agencies. Emphasis on budget preparation, budget politics, capital budgets, debt administration. Practical applications of budget making. Integrated Lab. Prereq.: 380; computer literacy, introductory statistics; ECON 460 or 461 recommended. 3 Cr. F.

**485/585. Administrative Law**

Legal problems arising from use of administrative agencies; administrative procedure; judicial relief against administrative action. Prereq.: 111. 3 Cr. DEMAND.

**486/586. 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.

**491/591. Constitutional Law**

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.

**492/592. 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.

## PSYCHOLOGY (PSY)

102 WHITNEY HOUSE/ 255-4157

*Also see College of Social Sciences description and requirements.*

**Chairperson** Zoa Rockenstein. **Faculty:** Anderson, Braje, Buhl, DeVoe, Hemmer, Jazwinski, Kukuk, Mertens, Prochnow, Rockenstein, Valdes.

The Department of Psychology is committed to a strong liberal arts program. Students have the opportunity to develop combinations of courses to meet their special academic and career needs. Students graduating with a degree in psychology are prepared for graduate school. Many of our graduates find employment in business and a variety of human service settings. In addition to the basic departmental core requirements, students may select courses from the following areas of psychology: abnormal, cognitive, developmental, environmental, industrial, learning, motivation, personality, experimental, physiological and social.

It is important that students consult early with departmental advisers, particularly if their plan is to continue their education in graduate school. A handbook for psychology majors and minors is available in the psychology office (102 Whitney House).

### BACHELOR OF ARTS MAJOR (43)

The major requires a minimum of 43 semester credits. All major students must take the four core classes: Introduction to Psychology (115), Introductory Psychology Laboratory (116), Psychology Statistics (201), and Methodology in Psychology (202). Required core classes must be taken in the listed sequence, except that PSY 116 may be taken concurrently with PSY 115. Requirements are:

#### *I. Common Skills Core (4 classes - 10 credits)*

PSY 115, 116, 201, 202

#### *II. Cognitive Experiential Area: (Choose at least 2 classes - 6 credits)*

PSY 225, 323, 325, 329, 345, 355, 425

#### *III. Foundations of Psychology: (Choose at least 3 classes - 9 credits)*

PSY 240, 250, 270, 353, 378, 386, 489, 490

#### *IV. Career Focus Area (Choose at least 2 classes - 6 credits)*

PSY 282, 315, 324, 328, 360, 380, 427, 428, 429, 441, 442, 443, 469, 473

#### *V. Electives (2 classes - 6 credits)*

At least two elective courses need to be taken from among any psychology courses.

#### *VI. Senior Integrative Experience: (2 classes taken concurrently - 6 credits)*

430 Advanced Topics paired with one of the following: 401, 432.

Students planning to major in Psychology must meet with an adviser prior to taking more than 6 credits of psychology classes to plan their program. Students must declare the major after taking no more than 12 credits in psychology. The senior experience requires either an internship, field work or research, and should be a major focus of the planning process.

*Note: Those students who are planning to attend graduate school in psychology should see the psychology chairperson by the beginning of their junior year.*

### MINOR (19)

Completion of 19 credits in psychology with departmental approval. Selection from sections II -IV should be planned with a psychology adviser.

#### *I. Core: (two classes - 4 credits) PSY 115, 116*

#### *II. Cognitive Experiential Area (Choose at least one course -3 cr.)*

#### *III. Foundations of Psychology (Choose at least two courses - 6 cr.)*

#### *IV. Electives (Select at least two courses -6 cr.)*

*Note: The psychology minor can be held in conjunction with the Bachelor of*

*Music, Bachelor of Fine Arts, Bachelor of Science (teaching and non-teaching) or any Bachelor of Arts degrees.*

### BACHELOR OF ELECTIVE STUDIES

#### **Major (43)**

Completion of 43 credits in psychology with departmental approval.

### COURSE DESCRIPTIONS

#### **+115. Introduction to Psychology**

Survey of contemporary scientific psychology. Includes: biological bases of behavior, cognitive mechanisms, learning/behavioral adaptation, development, social influences, personality, disorders, and treatment. 3 Cr. F, S, SUM.

#### **116. Introduction to Psychology Laboratory**

Psychological study of human behavior and evaluation of psychological research. Use of the scientific method, interactive demonstrations. May take concurrently with PSY 115. For intended majors and minors only 1 Cr. F, S.

#### **201. Psychology Statistics**

Descriptive and inferential statistics. Sampling procedures, data analysis, probability, estimation, statistical decision making. Parametric and non-parametric approaches. Prereq.: 115, psychology major or instructor's permission. 3 Cr. F, S, SUM.

#### **202. Methodology in Psychology**

Experimental and descriptive research design and methodology. Integrated lab. Prereq.: 115, 116, 201, or instructor's permission. 3 Cr. F, S, SUM.

#### **+225. Psychology of Women (MGM)**

Psychological research, theories and issues relevant to women. Critical analysis of mythical differences between women and men. Integrated lab. 3 Cr. F, S, SUM.

#### **+240. Developmental Psychology**

Human development from a life span perspective, including multicultural, theoretical, and research perspectives. Careers in developmental psychology. 3 Cr. F, S, SUM.

#### **250. Cognitive Psychology**

Attention and consciousness, memory, thinking, problem solving, perception and cognitive development. Integrated lab. Prereq.: 115 or instructor's permission. 3 Cr. F, SUM.

#### **270. Social Psychology**

Attitudes, social cognition, attraction, aggression, altruism, prejudice, intimate relationships, the self, and group dynamics. Prereq.: 115 or instructor's permission. 3 Cr. S, SUM.

#### **282. Human Learning and Memory**

Classical and operant conditioning, verbal learning, and memory processes. Integrated lab. 3 Cr. F, SUM.

#### **315. Psychological Scaling and Measurement**

Measurement in psychology, the aims of science, models and theories, scaling, basic statistics, reliability, validity, norms, and variance. Prereq.: 115, or instructor's permission. 3 Cr. S.

#### **323. Environmental Psychology**

The environment, use of space, stressors and esthetics as related to human beings, the optimum design of buildings, homes and institutions, and the effect of humans on the natural environment. 3 Cr. F.

#### **324. Advanced General Psychology**

Systems and theories of psychology including methods of disciplined inquiry and an examination of assumptions underlying various schools of psychology. Prereq.: instructor's permission. 3 Cr. S.

#### **+325. Psychology and Modern Life**

The impact of modern thought on individuals and society, especially on the family, religion, education, business, and government. 3 Cr. F, S, SUM.

#### **328. Motivation**

Current research and theory in motivation. Biological, social and psychological aspects of motivated behavior. Prereq.: 115 or instructor's permission. 3 Cr. F.



**329. Psychology of Sleeping and Dreaming**

Psychological, physiological and biochemical aspects of sleeping and dreaming; treatments of sleep disorders; theories of dream interpretation. 3 Cr. SUM.

**345. Psychology of Death and Dying**

Psychological research and theory concerning death and dying rituals and practice. Multicultural rituals and practices. 3 Cr. S, SUM.

**353. Sensation and Perception**

Sight, hearing, smell, taste and touch. Classical psychophysics and signal detection theory. Integrated lab. Prereq.: 115, or instructor's permission. 3 Cr. S.

**355. Psychology of Problem Solving and Decision Making**

Theoretical models, heuristics, and biases. Applications. Prereq.: 115 or instructor's permission. 3 Cr. F.

**360. Industrial Psychology**

Psychological study of people and the world of work. 3 Cr. S, SUM.

**378. Theories of Personality**

Personality theories and methods for assessing personality. Relations between personality theories and other major areas in psychology. Prereq.: 115 or instructor's permission. 3 Cr. F.

**380. Experimental Psychology**

Classic experiments in psychology; collection, manipulation, and report of data. Integrated lab. Prereq.: 115, 116, 201, 202 or instructor's permission. 3 Cr. F.

**386. Physiological Psychology**

Physiological and biochemical correlates of such phenomena as arousal, emotion, motivation, learning, and memory. Prereq.: BIOL 104 or equivalent course, PSY 115 or instructor's permission. 3 Cr. S.

**401. Field Experience**

Arrangement to be made with supervising professor and field institution supervisor. May be internship, practical experience, volunteer work, etc. Taken concurrently with PSY 430 to satisfy senior experience requirement for psychology majors. Prereq.: 21 hrs. of psychology credits including 115, 116, 201, 202. 3 Cr. F, S.

**425. Psychology of Creativity**

Creativity from the perspective of social, developmental, clinical, cognitive, transpersonal, organizational, and neuro psychology. Assessing and developing creativity. 3 Cr. S.

**428. Psychology Teaching Practicum**

Training and practical experience in applying instructional techniques in educational settings. 1-3 credits per semester; practical experience of course may be repeated once for 1 additional credit. Instructor's permis-

sion required. F, S.

**429. History/Systems of Psychology**

The origin and development of current ideas in psychology. Prereq.: 18 psychology credits, or instructor's permission. 3 Cr. S.

**430. Advanced Topics**

In-depth exploration of selected topics in psychology such as social cognition, cognitive neuropsychology, new models of intelligence testing, psychobiographical analysis, climate for creativity in organizations, etc. Prereq.: 21 hrs. of psychology credits including 115, 116, 201, 202. 3 Cr. F, S.

**432. Research Topics in Psychology**

A research topic in psychology. Different topic selected each time offered. Literature reviews, research design, data collection, and reporting. May be repeated with different topics up to 6 credits. Must be taken concurrently with PSY 430. Prereq.: 21 hrs. of psychology credits, including 115, 116, 201, 202. 3 Cr. F, S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**427/527. 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. F.

**441/541. Child Psychology**

Study of childhood, current research, theory, and development of children in various cultures. Integrated lab. Prereq.: 240. 3 Cr. F.

**442/542. Psychology of Adolescence**

Study of adolescence: current research, theory, and development of adolescents in various cultures. Integrated lab. Prereq.: 240. 3 Cr. S.

**443/543. 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.

**469/569. Personnel Psychology**

Psychological methods, procedures, and principles in personnel work; technical aids, psychological testing, vocational guidance, worker efficiency, and moral. Prereq.: 360 or instructor's permission. 3 Cr. F.

**473/573. Aggression, Anger, and Violence**

Psychological origins and determinants of human and animal aggression. Applications. 3 Cr. SUM.

**489/589. Psychology of Learning**

Psychological theories of learning. Human and animal research. Constraints on learning. Prereq.: 115, 116, 201, 202 or instructor's permission. 3 Cr. S.

**490/590. Psychological Disorders**

Classification, description, etiology and treatment of the disorders of personality organization and behavioral integration. 3 Cr. F, S, SUM.



## PUBLIC ADMINISTRATION PROGRAM

329 BROWN HALL/255-4128

*A program of the Department of Political Science. Also see College of Social Sciences description and requirements.*

**Faculty committee:** Coordinator Homer E. Williamson. **Members** Addicott, Bodelson, Frank, Krueger, Lofgreen, Sebastian, Wagner.

The B.A. program in public administration is primarily intended to prepare students as administrators with governments in the United States. It orients students toward the public management profession by combining core course work in political science with electives in business and liberal arts. Political science courses provide knowledge about the unique environment within which government personnel work. Business administration courses provide training in management techniques applicable in both the private and public sector. Liberal arts courses encourage students to experiment with public administration related knowledge from a variety of academic fields. A required capstone internship with government or not for profit organizations provides the student with the practical experience necessary to perform well in future occupational settings.

In order to be admitted to the public administration major, a student must already have completed ENGL 191, SPC 192, and POL 111 with a "C" or better in each course. The student must also submit a transcript or course summary, a personal goal statement, and a justification for the proposed major program to a major adviser. See the Department of Political Science office for directions on the application process. Students with less clear career goals may select a combination of courses for a generalist background. The adviser will only approve a program consistent with National Association of Schools of Public Administration and Affairs (NASPAA) guidelines. Students with more specific career goals may elect one of five specializations.

The department strongly advises that the student enroll in the major no later than the first semester of the junior year. The department expects a transfer student to make application as soon after admission to the university as is possible. After the student acquires a specified number of credits, the university prohibits advance registration for classes without admission to a major. Several factors dictate a need for careful planning and advising. Maximum benefit from some courses may be derived only if they are taken in a proper sequence. Many upper level courses in the major are offered only in alternate years. Admission to business courses will not be permitted until after the student has been admitted to a major. Since the internship experience is the heart of the major, all students should carefully prepare for that experience. Internship requirements, including prerequisites, should be obtained by the student when applying for the major.

A student may apply to the political science department chairperson to pursue the public administration honors program. Upon successful completion of this process, a notation of departmental honors will appear on the student's transcript at graduation. See the political science program description for honors requirements.

### BACHELOR OF ARTS

#### Public Administration Major (48)

*(Pending MnSCU approval)*

Required Core: (33 credits)

POL 111, 201, 212, 380, 444 (9 Credits), 481, 482, 484+, and 489

Electives (15 credits): Students may choose either a generalist or specialist approach.

### Generalist

Choose one course from each area with the major adviser's approval:

#### Political-Legal-Economic-Social Systems:

ECON 460+, 461+, 465+; POL 311, 313, 485, 491, 492; SOC 389+

#### Human Behavior-Individual, Group, Organizational:

MGMT 301, 365, 467; PSY 378+; SPC 441; SOC 456+

#### Analytic and Quantitative Skills:

ACCT 291; BCIS 150, 240; CSCI 169; MCS 302+; POL 486, 499, SOC 303+

#### Administrative Management Systems:

ECON 417+; FIRE 371, 375; MGMT 352+; POL 483, 488

#### Communication Skills:

BCIS 255+, 340+; ENGL 339, 426+; SPC 211, 341.

### Specializations

**Health Administration:** POL 488 required; choose four from the following with the major adviser's approval: ACCT 291\*, 292\*; BCIS 340+\*; GERO 208\*, 411\*; HLTH 250; MCS 302+\*; POL 486.

*\*These courses are not required in the major but will meet licensure requirements for extended care facility administration. See major adviser for all licensing requirements. Students wishing to enter extended care facility administration are advised to consider a gerontology minor.*

#### Local and Community Economic Development Administration:

POL 483 required; choose four from the following with approval of major adviser: ACCT 291; ECON 461+, 465+; FIRE 378; GEOG 394; MGMT 451; MKGB 412; POL 311, 313; SPC 211; URB 350 (consent of major adviser). Students who wish to take a minor should consider the following: economics; geography; finance, insurance, and real estate; local and urban affairs; and microcomputer studies.

#### Nonprofit Management:

POL 487 required; choose four from the following with approval of the major adviser: ACCT 291\*; BCIS 150\*, 255+, 340+; ECON 420+\*; ENGL 339, 426+; MKGB 412+\*; POL 486\*; SPC 211\*, 341; SOC 456+\*. \*Recommended courses.

#### Public Financial Administration:

Choose five from the following with approval of major adviser: ACCT 291, 292+; BCIS 240; ECON 460 or 461+, 465+; FIRE 371, 373, 375; MCS 302+; POL 486; SPC 211. Students who wish to take a minor should consider the following: accounting; economics; finance, insurance, and real estate; and microcomputer studies.

#### Public Personnel Administration:

Choose five from the following with approval of major adviser: ECON 473+\*; FIRE 375\*, 480+; MGMT 352+, 450+\*, 451+\*, 452+, POL 485\*, 492; PSY 328, 360+, 469+; SPC 242\*, 341. \*Recommended courses.

*Note: Courses with a + have prerequisites that are not required in the major. Admission to a major is a prerequisite for all business courses; students must have at least 60 credits and a minimum 2.65 grade point for admission to 300-400 level business courses. It is expected that a student will have completed POL 201 before taking 400 level political science courses in public administration.*

### Public Administration Minor (18)

Required: POL 111, 201, 380, 482, 484, 481 or 489. A student may count no more than 9 credits towards a public administration minor from courses used to fulfill requirements in other majors or minors.

**RELIGIOUS STUDIES (REL)**

112 BROWN HALL/255-4114

**Director** Jordan Curnutt. **Faculty committee:** J.B. Anderson, Curnutt, Fuller, Hibbard, Lavenda, Weston, J. White.

The study of religious beliefs, practices, and doctrines is essential for understanding the past and present state of any given culture, and the course of its development. Religious views of the meaning and purpose of human existence, the nature of ultimate reality, and the nature and foundation for all that is worthwhile in our lives express who we are as individuals and as members of a community.

The purpose of the Religious Studies Program is to investigate these views in order to appreciate human cultures and understand our place in the cosmos. Students may enter the program when their completed credits equal or exceed 24 credits in all colleges and at least 9 credits in residence at St. Cloud State University. Minimum scholarship requirements for admission is a grade point average of 2.0 in course work at St. Cloud State University.

**BACHELOR OF ARTS****Minor (21)**

Select three from: REL 100, 150, 151, 200, 250 and ENGL 305, 306  
Select two from: ANTH 388, PHIL 205, REL 300 (Religious studies minor students may request exemption from prerequisites of ANTH 388.)

Electives: 6 credits. These may be taken from courses listed above and from the following: ART 431; ENGL 321, ENGL 424, 481-3 (Topics in Genre, Themes, Authors: Religion); HIST 402/502, 403/503, 405/505; MUSM 321; PHIL 201

**BACHELOR OF ELECTIVE STUDIES****Minor (27)**

Completion of any 27 credits of courses listed in the religious studies minor with the approval of the director.

**COURSE DESCRIPTIONS****+100. World Religions (MGM)**

The beliefs, practices, and history of the world's religions, including Christianity, Judaism, Islam, Hinduism, Buddhism, Taoism, and other traditions such as Native American Religion and African Traditional Religion. 3 Cr. F, S.

**150. Introduction to the Old Testament**

The books of the Old Testament, their cultural background, and the context from which they emerged. 3 Cr. S.

**151. Introduction to the New Testament**

The historical development, literary shape, cultural context, and religious message of the New Testament writings. 3 Cr. F.

**200. Religions of South Asia**

Beliefs, practices, and history of religion in India and Southeast Asia. Theravada Buddhism and various forms of Hinduism; Jainism and Sikhism. 3 Cr. S, ALT.

**250. Religions of China and Japan**

Beliefs, practices, and history of Confucianism, Taoism, Mahayana and Zen Buddhism, and folk religions. 3 Cr. S, ALT.

**300. 20th Century Religious Thought**

Recent developments in theology and philosophy of religion, such as: the nature of God, the problem of religious diversity, the role of revelation, the impact of science on faith, death and immortality, and the justification of religious belief. 3 Cr. F, ALT.

**SCIENCES (SCI)**

224 MATHEMATICS AND SCIENCE CENTER/255-3009

Also see *College of Science and Engineering descriptions and requirements.*

**Science Education Committee:**

**Chair:** David Kramer. **Members:** Hoff, Kelsey, Kochmann, Lavalley, Lee, Louisell, Nook, R. Schoenberger, Scott, Simpson, Tennison.

**BACHELOR OF SCIENCE****General Science Major (59)**

The following program meets the State of Minnesota requirements for teaching Science in grades 5-10. Students planning to become licensed to teach Science should contact an adviser at the earliest convenience.

BIOL 151, 152; ESCI 220, 307; CHEM 210, 211; PHYS 231, 232; SCI 321, 322, 444, 430, 440; ASTR 205; plus 8 credits of electives from Biology of Earth Science.

**Elementary Science Cognates:**

Required by elementary licensure program:  
SCI 226

Cognate I

BIOL 302, CHEM 302, ESCI 302, SCI 321

Cognate II

SCI 332, 448; MATH 434

Completing Cognate I and II represents a minor in Science.

For complete details and a listing of all Elementary cognates refer to the elementary licensure requirements listed in Teacher Development.

**COURSE DESCRIPTIONS****226. Science Concepts for Elementary Teachers**

Concepts in science, technology, and historical and social perspectives of science. Lab. 3 Cr. F.

**321. Science, Technology and Society**

An introduction to the role of science and technology in modern society. Prereq.: 226. Lab. 3 Cr. F, S.

**322. Science in Personal and Social Perspectives**

Includes personal and social aspects of population growth, natural resource utilization, environmental quality and natural/human induced hazards. Lab. 3 Cr. S.

**444. Internship in Science**

Participation in a faculty research project. 3 Cr. S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**430/530. Methods and Materials for Teaching Secondary Science**  
An introduction to modern techniques and curricula for teaching secondary school life science. Prereq.: Admission to a teaching licensure program. 4 Cr. F.

**434/534. 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.

**436/536. Environmental Education for Teachers**

Examination and experience with environmental curricula and materials for classroom and field instruction. 3 Cr. F, SUM.

**438/538. Contemporary Principles in Science Education**

Topics to be determined and announced in class schedule. 1-3 Cr. DEMAND.

#### 440/540. Seminar in Science Teaching

A companion to student teaching. Reflections and application of science teaching strategies. 2 Cr. S.

#### 442/542. 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.

### **SOCIAL SCIENCE (SSCI) AND SOCIAL STUDIES (SST)**

361 STEWART HALL/255-2096

**Social Science Director/Social Studies Coordinator** Allen Stensland  
**Faculty Committee:** Haniff, Karasik, Maloney, O Toole, Stensland, Tripp.

The Social Science and Social Studies programs are committed to the interdisciplinary study of human behavior using multiple perspectives and tools of scientific analysis. In interdisciplinary courses, issues confronting us are examined from many points of view. An understanding of topics such as power or population change, for example, is best achieved through an integrated approach using insights from anthropological, economic, geographical, historical, political, psychological and sociological dimensions, as well as from other areas such as the natural sciences and humanities.

Career benefits for students are many; the skills and knowledge gained from the Social Science and Social Studies programs are applicable in a variety of settings, including possible careers in teaching, government service, or business. This approach provides strong preparation for graduate study in the social sciences, international fields and law. Our graduates are "generalists" who have a wide range of interests and backgrounds well suited to the rapidly changing job markets of the 21st century and/or world.

Students seeking admission to a nonteaching major or minor in Social Science must have at least a 2.0 grade point average in all courses previously taken in anthropology, economics, geography, history, political science, psychology, social science and sociology. Students in a teaching Social Science or Social Studies major must have an overall 2.5 grade point average. Many courses may be counted in both a major or minor or a double major. Transfer credits carrying a grade of less than "C" are not usable in a Social Science or Social Studies major or minor.

Students must have completed SST 453 and must have achieved a grade of at least "C" in SST 453 prior to student teaching.

#### **BACHELOR OF ARTS –NON-TEACHING**

##### **Social Science Major (42)**

ECON 205, 206; POL 111, 212; PSY 115; SOC 160, 304; ANTH 267; SSCI 421; SSCI 460 or 470

One 3-credit elective at the 300-400 level from 4 of the following areas: ANTH, ECON, GEOG, HIST, POL, PSY, SOC, SSCI

#### **NON-TEACHING**

##### **Social Science Minor (24)**

ECON 205; POL 111; SOC 160, 304; ANTH 267; SSCI 421  
Electives 300-400 level in ANTH, ECON, POL, PSY, SSCI

#### **BACHELOR OF ELECTIVE STUDIES (NON-TEACHING)**

##### **Social Science Major (36) and Social Science Minor (24)**

Students may choose from several tracks established by the Social Science program. Each track provides for self-selection of courses within departmental guidelines in consultation with an adviser.

#### **BACHELOR OF SCIENCE–TEACHING**

SCSU offers a variety of majors that lead to social studies licensure in Minnesota.

The University's approved program currently includes: SSCI 104, ANTH 150, ECON 201, GEOG 253, HIST 285, PSY 324, POL 201, SOC 304, SSCI 421, SST 453

**Many of these teacher licensure courses, as well as a number of the courses in the major can be used for general education credit.**

Individuals who plan to seek this licensure should consult the social studies licensure coordinator in the College of Social Sciences immediately upon enrolling at SCSU or changing to this field to determine the current plan for the social studies licensure competencies to be developed and demonstrated.

This program is periodically reviewed and updated. Changes will be noted in the on-line catalog as they are approved. The social studies licensure coordinator will assist students with the changes.

#### **TEACHING MAJORS WILL PICK ONE OF THE FOLLOWING TRACKS:**

##### **Track 1**

##### **Social Science Major (24)**

ANTH 267; ECON 205, ECON 206 or 471; POL 111; SOC 362, 365; SSCI 204, 460 or 470

##### **Track 2**

##### **Social Studies Major: American Studies Emphasis (29)**

AMST 101 or 102, 222, 390, 494, 496; CS 333  
American History (6 Cr.)  
Global History (6 Cr.)

##### **Track 3**

##### **Social Studies Major: Anthropology Emphasis (27)**

ANTH 267, 367, 480, 490 or 491;  
Elective 12 credits of ANTH 200-400 level courses.  
HIST 106 or 150

##### **Track 4**

##### **Social Studies Major: Economics Emphasis (27)**

ECON 205, 206, 360, 471, 478; HIST 345 and 9 credits of 300-400

##### **Track 5**

##### **Social Studies Major: Geography Emphasis (30)**

Geography Core: GEOG 270, 271, 273, 274  
GEOG electives – 15 credits – must be at 200 level or above  
Regional courses: (9 Cr.; one must be 376 – 3 Cr.).  
Topical course (6 Cr.)

##### **Track 6**

##### **Social Studies Major: History Emphasis (30)**

History Core (24 credits, of which at least 18 must be at the 200-level or above).

- a. U.S.: HIST 140 and 141 (6 Cr.)
- b. Western Civ I and II (6 Cr.)
- c. Africa, Asia, Latin America or Middle East (6 Cr.)
- d. HIST electives (6 Cr.)

POL 111 (3 Cr.); one course from the following areas: ANTH/SOC, ECON, GEOG (3 Cr.)

##### **Track 7**

##### **Social Studies Major: Multidisciplinary Emphasis (27)**

- a. Selection of two fields within the social sciences (anthropology, economics, geography, history, political science, psychology, social science, sociology) for 15-21 credits. This must have a thematic and/or chronological pattern which the candidate can defend to the major adviser.



- b. Electives (6 Cr.) in other related social science or humanities programs which the candidate must defend to the major adviser. Two 200-400 level courses from the following four areas – ANTH, SOC, SSCI, ECON (9 Cr.)

#### Track 8

##### **Social Studies Major: Political Science Emphasis (27)**

Political Science Core POL 101, 111, 212, 251, 311, 492

One course in comparative government (300/400) (3 Cr.)

One course in political theory (300/400) (3 Cr.)

One course in international relations (300-400) (3 Cr.)

#### Track 9

##### **Social Studies Major: Psychology Emphasis (30)**

PSY 115, 216\*, 418; Four courses from the following: PSY 273, 275, 378, 441, 442, 473

Related Fields: Three 200-400 level courses from the following five areas—ANTH, SOC, SSCI, ECON, GEOG

\*Not required to take both PSY and SOC Statistics

#### Track 10

##### **Social Studies Major: Sociology Emphasis (27)**

Sociology Core

SOC 160, 261, 268, 273 or 277, 301, 302, 365; ECON 360

Two 400-level SOC courses (6 Cr.)

##### **Social Studies Elementary Education Cognate (9)**

One course from three of the following areas/departments: ANTH, ECON, GEOG, HIST, SSCI, SOC, POL, PSY. Two courses must be at the 200-400 level (Cannot use SSCI 320)

##### **Social Studies Elementary Education**

##### **Minor (18)**

One course from six of the following eight areas/departments: ANTH, ECON, GEOG, HIST, SSCI, SOC, POL, PSY

Four courses must be at the 200-400 level  
(Cannot use SSCI 320)

#### COURSE DESCRIPTIONS – SOCIAL SCIENCES

##### **+104. General Social Science**

Interdisciplinary social science analysis of factors which affect the person in society. Designed to lead to critical analysis of complexities and responsibilities of day-to-day living in the contemporary world. 3 Cr. F, S.

##### **+204. Themes in the Social Sciences**

Selected interdisciplinary social scientific tools will be applied to a special interest area such as death and dying, poverty, the scientific revolution, the new American Indian. May be repeated once, but general education credit may be received for only one theme. 3 Cr. F, S, SUM.

##### **+301. Futures Studies**

An examination of the forces creating the rapid social changes which students will have to anticipate in adapting to their future life styles. A computerized based lab may be included. Prereq.: ENGL 101, two courses from Social and Behavioral Sciences General Education Program, and 30 credits completed. 3 Cr. F, S.

##### **311. Images of the Future**

Relationship between individual and group images of future and decision making. Prereq.: Strongly recommend 104 and PHIL general education requirement. 3 Cr. F, S.

##### **320. Elements of Social Science**

Concepts in social science appropriate for elementary school and middle school. Not open to secondary majors or minors in any of the social sciences. 3 Cr. F, S, SUM.

##### **401. Concepts in Social Science**

Application of interdisciplinary social science concepts to issues in contemporary societies. Specific titles to be listed in the class schedule each time the course is offered. 3 Cr. DEMAND.

##### **421. Integrated Social Science**

Training in the models of thought, the language, and the basic models common to the social science disciplines; practice in the application of social science to a specific research project. Prereq.: SOC 304, PHIL 194 and one course in each of the following areas: ECON; POL; SOC or ANTH. 2 Cr. F, S.

##### **444. Internship**

1-12 Cr. ALT.

#### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

##### **+460/560. 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.

##### **+470/570. 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.

##### **476/576. 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.

#### COURSE DESCRIPTION – SOCIAL STUDIES

##### **453. Teaching Social Studies in Secondary and Middle School**

Philosophy, methods and materials in the teaching of social studies in the secondary school and middle school. Lab. Must be completed before student teaching with at least at grade of "C." Prereq.: permission of social studies licensure coordinator. 3 Cr. F, S.

## SOCIAL WORK (SW)

236 STEWART HALL /255-3139

*Also see College of Social Sciences description and requirements.*

**Chairperson:** Richard Present. **Faculty:** Brennan, Present, Robin, Stadum, Twiname-Dungan, Whitford.

Approved in 1973 by the Minnesota Higher Education Coordinating committee, the social work program has as its primary objective the education of social work majors for entry level professional positions in the social welfare and human service delivery system or entry into graduate school. The social work program is accredited by the National Council on Social Work Education.

The social work program combines a liberal arts base with an intensive core of social work classes and field practice experience. Students integrate theoretical knowledge, value exploration, and skill development in applying a generalist model of social work practice. A strong emphasis of the program is the focus on at-risk populations. As a part of the pre-professional preparation, students must take the following: APSY 262 or PSY 241, BIOL 104, HURL 201. In addition, students must take SW 211 (MGM).

Students will seek admission into the major during the semester that they are taking SW 340.

A grade point average of 2.5 is required for admission to major. All social work courses and social work pre-core courses require a grade of "C" or above. Students must re-take any of the above classes in which their grade is below a "C".

### BACHELOR OF SCIENCE

#### Social Work Major (58)

All students must complete a pre-professional core consisting of BIOL 104, HURL 201, PSY 241 or APSY 262 before admission into the major. Professional requirements: SW 211, 300, 301, 302, 330, 340, 360, 410, 411, 412, 443, 444, 445, SOC 303, 304.

### COURSE DESCRIPTIONS

#### +211. Introduction to Social Welfare (MGM)

Development, structure, services, and future of the institution of social welfare in the United States. The interrelationship of social welfare with other social systems with an emphasis on poverty and social welfare in the United States. 3 Cr. F, S, SUM.

#### 213. Adolescent Problems

Adolescence as a stage of life involving physical, emotional, and social changes. Problems that lend themselves to social work interventions and social work techniques. 3 Cr. ALT.

#### 275. Social Work Practice with the Aging

Social services related to aging including practice settings, values, practice skills and social policy affecting older populations. 3 Cr. ALT.

#### 300. Portfolio Peers I

Introduction to and development of the Diversity/Empowerment Portfolio Project. At-risk populations within the social welfare institution. Prereq.: 211 and pre-professional core. Taken concurrently with 330 and 340. 1 Cr. F, S.

#### 301. Portfolio Peers II

Continued integration of the Diversity/Empowerment Portfolio Project with major classwork. At-risk populations within the social welfare institution. Prereq.: 211, 300, 330, 340 and pre-professional core. Taken concurrently with 360 and 410. 1 Cr. F, S.

#### 302. Portfolio Peers III

Continued integration of the Diversity/Empowerment Portfolio Project with major classwork. At-risk populations within the social welfare institution. Prereq.: 211, 300, 301, 330, 340, 360, 410 and pre-professional core. Taken concurrently with 411 and 412. 1 Cr. F, S.

#### 320. Child Welfare

Preparation for child welfare work. Child protection services, juvenile court procedures, day care services, the rights of children, foster homes and adoption. 3 Cr. ALT.

#### 330. Human Interaction in Social Systems

Human behavior from a social system perspective. Systemic model of family, groups, organizations, and communities as an integrated framework to assess problem situations. Prereq.: 211 and pre-professional core. Taken concurrently with 300. 3 Cr. F, S.

#### 340. Introduction to Social Work

Description of the social work profession; presentation of a generalist practice model integrated with volunteer experience in the community. Prereq.: 211 and pre-professional core. Taken concurrently with 300. 3 Cr. F, S.

#### 360. Social Welfare Policy

The social welfare institution and its policies; specific poverty issues are examined and critiqued. Prereq.: 211, 300, 330, 340, SOC 303, pre-professional core and admission to the social work major. Taken concurrently with 301 and 410. 3 Cr. F, S.

#### 410. Practice I

The generalist model of social work practice with focus on work with individuals and families. Prereq.: 211, 300, 330, 340, SOC 303, pre-professional core and admission to the social work major. Taken concurrently with 301 and 360. 3 Cr. F, S.

#### 411. Practice II

The generalist model of social work practice with focus on work with groups and families. Prereq.: 211, 300, 301, 330, 340, 360, 410, SOC 303, 304, pre-professional core and admission to the social work major. Taken concurrently with 302, 412 and 443. 3 Cr. F, S.

#### 412. Practice III

The generalist model of social work practice with particular focus on macro level practice. Prereq.: 211, 300, 301, 330, 340, 360, 410, SOC 303, 304, pre-professional core and admission to the major. Taken concurrently with 302, 411 and 443. 3 Cr. F, S.

#### 420. Topics in Social Work

Reading and discussion, skill exercises or field experience related to social work theory, research, or practice. A specific topic selected each time offered. May be repeated. Prereq.: permission. 3 Cr. ALT.

#### 443. Pre-Internship

Preparation of students for the required internship. Contact with and orientation to social agencies under the supervision of the instructor. Prereq.: 211, 300, 301, 330, 340, 360, 410, SOC 303, 304, pre-professional core and admission to the social work major. Taken concurrently with 302, 411 and 412. 3 Cr. F, S.

#### 444. Internship in Social Work

Extensive educationally directed social work field placement in an approved social agency. Arranged with the internship instructor one semester prior to the actual placement. Prereq.: Completion of pre-professional core and all SW courses except 445. Taken concurrently with 445. 12 Cr. F, S.

#### 445. Social Work Senior Seminar

Integration of knowledge from field internship and classroom. Ethics and values of the profession. Culmination of Diversity/Empowerment Portfolio project. Prereq.: Completion of pre-core and all SW courses except 444. Must be taken concurrently with 444. 3 Cr. F, S.

#### 475. Field Work

Supervised field experience in a social service agency, correctional institution, or other approved facility. Admission by department approval. 3 Cr. DEMAND.





## SOCIOLOGY (SOC)

262 STEWART HALL/255-2294

*A program in the Department of Sociology and Anthropology. Also see College of Social Sciences description and requirements.*

**Chairperson** Linda Havir. **Faculty:** Alessio, Argiros, Davis, Havir, Mehdi, Scheel, Sherohman, Zuo.

The sociology program offers a general major, an interdepartmental major, a bachelor of elective studies, a sociology emphasis within the social studies education major and a minor. Sociology majors have the opportunity to supplement their major with a concentration in applied sociology which is currently under review for national accreditation. The major includes several sequenced courses, as recommended in the American Sociological Association guidelines for undergraduate programs.

The program emphasizes critical thinking, writing and analytic skills and provides excellent preparation for graduate and professional studies. Students may select a substantive emphasis (which will appear on transcript) and internship which enable them to prepare themselves in accordance with their chosen field of study. Capstone experiences are built into program requirements. Students who seek employment immediately after graduation are strongly encouraged to complete an internship.

In addition to offering several majors and a minor, the Sociology Program provides service to the university and the broader community through its strong liberal arts orientation and general education courses. Sociology offers a unique and critical perspective on contemporary society, social issues and problems. This program focuses on the utility of sociological knowledge for institutional reform, service to the community and progressive social change.

### BACHELOR OF ARTS

#### Sociology Major (37)

Required: SOC 160, 301, 302, 303, 304, 365, 477\*, 488

Emphasis: Select 6 credits from one of the following areas:

- Deviance/Social Problems: SOC 261, 366, 367, 368, 374, 389, 400 w/approval, 415, 460, 468
- Family/Health/Aging: SOC 273, 277, 311, 350, 371, 374, 400 w/approval, 472, 473, 474, 475

- Politics, Economy and Society: SOC 261, 268, 273, 355, 362, 389, 400 w/approval, 415, 445, 455, 456, 460, 468, 481; ANTH 363, 384
- Social Psychology: SOC 310, 311, 368, 412
- Theory/Methods: SOC 400 w/approval, 415, 462, 478, 479; ANTH 363, 491

#### Electives: 9 credits

9 credits of sociology emphasis and elective courses must be at 300/400-level. ANTH 267 may be used for 3 elective credits.

#### Concentration in Applied Sociology (37)

Required: SOC 160, 301, 302, 303, 304, 365, 444 (6 Cr.), 456, 477\*, 480

Applied Electives: Select 6 credits from any of the following courses:

- Deviance/Social Problems: SOC 366, 367, 368, 374, 460
- Family/Health/Aging: SOC 350, 371, 374, 472, 473, 475
- Politics, Economy and Society: SOC 455, 460
- Theory/Methods: SOC 478, 479; ANTH 363, 491

Emphasis: Students may choose an emphasis in one of the four areas above if they take two courses from one area.

#### Sociology Interdepartmental Major (52)

Required: SOC 160, 301, 302, 303, 304, 365, 477\*, 488

Electives: (30)

- Sociology: 6 credits at 300/400-level
- Interdepartmental: 24 credits from two or more programs out side sociology, including at least 12 credits from one program.

\* Must be taken concurrently with 400 level course.

#### Sociology Minor (21)

Required: SOC 160, 301, 302, 365

Electives: 9 Cr. (6 credits must be at 300/400-level) ANTH 267 may be used for 3 elective credits.

### BACHELOR OF ELECTIVE STUDIES

#### Sociology Major (36)

Required: SOC 160, 301.

Electives (30) must include research methods and theory competency.

Program must be approved by sociology major adviser.

#### Sociology Minor (21)

Required: SOC 160, 301

Electives: (15)

Program must be approved by sociology minor adviser.

### BACHELOR OF SCIENCE

#### Social Studies Major (Teaching)

#### Sociology Emphasis (27)

Sociology Core

SOC 160, 261, 268, 273 or 277, 301, 302, 365 (21 Cr.);

Two 400-level SOC courses (6 Cr.)

### COURSE DESCRIPTIONS

#### +160. Principles of Sociology

Human social interaction, including culture, groups, group and personality, group interaction, community, social institutions, cultural change, social disorganization. 3 Cr. F, S, SUM.

**+261. Social Problems (MGM)**

Nature, origins, and types of social problems in contemporary society. Societal efforts to eliminate or alleviate these problems. 3 Cr. F, S.

**+268. Race and Ethnic Relations (MGM)**

Race and ethnic divisions, discrimination, conflict and cooperation. Impact of global processes on race and ethnicity in the United States. Comparison of US racial and ethnic patterns to other countries. 3 Cr. ALT.

**273. Sociology of Gender**

Social construction of gender. Impact of social-economic constraints on gendered relations and how changes in socio-economic circumstances help transform or deconstruct gender. 3 Cr. ALT.

**+277. Dating, Intimate Relations and the Family**

Dating, mate selection, and household arrangements; marital/partner relations, parenthood, later family life, separation, divorce, and remarriage. 3 Cr. F, S.

**301. Social Inequality**

Social structures and processes that maintain class, race, and gender inequality in the United States and globally. Collective action and public policies to reduce social inequality. Should be taken early in the major. Writing intensive. Prereq.: 160, ENGL 191. 3 Cr. F, S.

**302. Social Theory**

The development of the discipline of sociology and contemporary sociological theory as a guide to sociological research; macro-level theories. Prereq.: 301. 3 Cr. F, S.

**303. Research Methods**

Design, data gathering, data analysis, derivation of conclusions, writing of reports. Prereq.: 160. Sociology majors must also complete 301. Students using this course to fulfill requirements in other programs must consult their program adviser for the appropriate prereq. Integrated LAB. 3 Cr. F, S.

**304. Social Statistics**

Statistical tools for problems in sociological research, presentation and interpretation of quantitative data; univariate and bivariate, descriptive, and inferential techniques. Prereq.: 160, 303 or equivalent, 303 and 304 may be taken concurrently. Integrated LAB 3 Cr. F, S.

**310. Social Interaction**

Interaction in small groups and larger collectivities. Observation of interaction patterns in public places. Prereq.: 160 or consent of instructor. 3 Cr. ALT.

**311. Sociology of Intimacy**

Nature, development, and social dynamics of intimate relationships, including family relationships, sexual relationships, and friendships. Prereq.: 160 or consent of instructor. 3 Cr. F

**350. Sociology of Age and Aging**

Age status in the US. The social status and roles of older adults. Prereq.: 160. 3 Cr. F

**355. Sociology of Women and Work**

Impact of sociological position and social values on women in the work world in industrial society. Prereq.: 160. 3 Cr. ALT.

**362. Social Change**

Change in interpersonal relationships and in societal institutions. Prereq.: 160. 3 Cr. S.

**365. Social Psychology**

Symbolic interactionism. Socialization, self, social interaction, communication, and deviance. Prereq.: 301. 3 Cr. F, S.

**366. Juvenile Delinquency**

Definition, extent, and distribution; theories of causality and methods of treatment of juvenile delinquency. Prereq.: 160. 3 Cr. S.

**367. Criminology**

Definition, extent and distribution, theoretical interpretations of causality, and methods of treatment of criminal behavior. Prereq.: 160. 3 Cr. F

**368. Social Deviance**

Social deviance, deviant acts, attributes and beliefs. Prereq.: 160. 3 Cr. F

**371. Sociology of Family Problems**

Selected family problems from the sociological perspective. Current

research and theory are used to explain etiology, structure and perpetuation of problems. Prereq.: 160. 3 Cr. ALT.

**374. The Sociology of Family Violence**

Research and theory on family violence as an emergent social problem. Child, spouse, and parental abuse and examinations of possible societal solutions. Prereq.: 160 or consent or instructor. 3 Cr. ALT.

**389. Wealth and Power in America**

The interrelations and consequences of wealth, business, and politics in the United States. Prereq.: 160. 3 Cr. ALT.

**400. Special Problems in Sociology**

A seminar for advanced students wishing to work out a special problem in sociology. 1-4 Cr. DEMAND.

**444. Internship**

A maximum of 6 credits may be used toward a major; 3 credits used toward a minor, remainder may be used in general electives. Prereq.: or Coreq.: 480 or 488, or consent of instructor. 6-12 Cr. F, S, SUM.

**477. Senior Project**

A research experience for students majoring in sociology. Students will produce research involving a library search and qualitative or quantitative analysis of data. Prereq.: 302, 304, 365, must be taken concurrently with 400 level course, consent of adviser. Integrated Lab. 1 Cr. F, S, SUM.

**480. Introduction to Sociological Practice**

Capstone seminar for Applied Sociology majors. Uses of sociological theory, concepts, methods, and findings in careers related to sociology. Ethics, career preparation, and the relationship of sociological practice to academic sociology. Prereq.: 477 3 Cr. F.

**488. Senior Seminar in Sociology**

Capstone seminar on the value of the sociological perspective; relationships among subareas, among sociology and other disciplines, between academic sociology and sociological practice; and career preparation. Prereq.: 477. 3 Cr. F, S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**412/512. Self and Society**

Nature, origins, development, maintenance, and change of self. Relationships between self and social situations, social interactions and social worlds. Prereq.: 365. 3 Cr. ALT.

**415/515. 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

**445/545. Political Sociology**

Structural and ideological factors influencing the development and legitimization of political institutions, and the sociological conditions of influencing the political processes. Prereq.: 160. 3 Cr. ALT.

**455/555. 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.

**456/556. 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

**460/560. 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.

**462/562. Seminar**

Evaluation of sociological theory, social issues, or contemporary events. A specific topic selected each time offered. May be repeated. Prereq.: 302 or consent of instructor. 1-3 Cr. DEMAND.

**468/568. Minorities in the Capitalist World-System**

Racism, sexism and minority/subordinate group formation, stratification and interaction. Prereq.: 268 or MINS 201 or HURL 201. 3 Cr. ALT.

**472/572. 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. Prereq.: 160. 3 Cr. F.

**473/573. Sociology of the Elderly Family**

The elderly family's structure, function, change as a social system. Interaction patterns and lifestyles in the United States. Prereq.: 160. 3 Cr. ALT.

**474/574. 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. Prereq.: 160 or ANTH 267, or consent of instructor. 3 Cr. ALT.

**475/575. Sociology of Health and Illness**

Sociocultural aspects of illness, health, treatment, and health care delivery, and the social organization of health care. Prereq.: 160 or consent of instructor. 3 Cr. S.

**478/578. Advanced Statistics I.**

Multivariate statistical applications applied to sociological problems using SPSS for Windows. Prereq.: 304 or equivalent. Integrated LAB. 3 Cr. ALT.

**479/579. Computer Utilization in Sociology**

Organizing and analyzing sociological data using computer software. Prereq.: 304 or equivalent. Integrated LAB. 3 Cr. DEMAND.

**481/581. Social Stratification**

Class, status, and power in America: origin, legitimation, and consequences. Theories and research on stratification, and international stratification. Prereq.: 301 or consent of instructor. 3 Cr. ALT.

**SOVIET STUDIES (SOV)**

COLBERT HOUSE SOUTH/255-4390

*A program within the Department of Foreign Languages. Also see College of Fine Arts and Humanities descriptions and requirements.*

**Director:** William Langen. **Faculty Committee:** Coppock, Grottel, Jones, Langen, R. Lewis.

The Soviet Studies minor provides an opportunity to acquire an understanding from a policy perspective. The program is based on the assumption of the Soviet Union that the Soviet system can best be understood by analyzing Soviet perceptions of the system and the people within it. Russian language study is central to the minor.

**BACHELOR OF ARTS OR BACHELOR OF SCIENCE****Non-teaching Minor (26)**

Students must take the following courses: SOV 100; RUSS 101, 102; SOV 410-510. 14 Cr. The remaining 12 credits may be chosen from at least three of these areas: HIST 434-534; GEOG 378; POL 332; RUSS 201, 202. Cognates: 3 credits of cognate coursework may be substituted for three credits of electives: ECON 360.

**COURSE DESCRIPTIONS****+100. Introduction to Soviet Studies (MGM)**

Introduction to the Soviet Union, including geography, history, politics, society, economics, culture, foreign policy and contemporary issues. 3 Cr. F.S.

**410/510. 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.

**SPECIAL EDUCATION (SPED)**

A211 EDUCATION BUILDING/255-2041

*Also see College of Education descriptions and requirements.*

**Chairperson** Joan Kellett. **Faculty:** Gadberry, R. Johnson, Kellett, J. Lewis, Markell, Noll, Robley, Salk, Timmers, Wellik

*Special education licenses are currently being revised by the Minnesota Board of Teaching. These revisions may require changes in the Special Education major. For further information, please contact the Department of Special Education.*

The Department of Special Education offers an undergraduate program which leads to licensure to teach students with developmental disabilities or specific learning disabilities or emotional/behavioral disorders. A non-teaching minor in special education is also offered for other teacher education students.

The comprehensive major in special education is designed to allow students to receive one special education teaching license. Students may choose from developmental disabilities, specific learning disabilities or emotional/behavioral disorders. After obtaining one license at the undergraduate levels, students will have completed a majority of the coursework for the additional licenses and may elect to finish the coursework for the other licenses or continue coursework at the graduate level.

The minor in special education is offered to education majors other than special education. It has been designed to give the prospective teacher a strong background in knowledge and applications that will prepare them to work with students with special needs in inclusive settings. The minor will also allow students planning to do graduate work in special education to complete some of the coursework at an undergraduate level.

Students will complete a common sequence of coursework which will culminate in a student teaching experience and specialized coursework during their senior year.

Students desiring to obtain a major in special education should be aware of the admissions procedures. While progressing through the major, there are three points at which the student must follow the appropriate admission procedures. They are: admission to major program, admission to teacher education, and admission to resident teaching.

**Admission to major program** is initiated in the office of the Department of Special Education. For students who have attended only St. Cloud State University, application for the major program may be made after the completion of 30 credits. For transfer students, application for admission to major program may be initiated after they have completed a minimum of 30 credits, at least nine must have been at St. Cloud State University. All students must have satisfactorily completed Applied Psychology 262, Special Education 403, and Speech 192 or an equivalent with a grade of "C" or better. In order to be eligible for admission to a major program, the student must have an overall grade point average of 2.75 or better in courses taken at St. Cloud State University at the time the application is made.

**Admission to teacher education** is a function of the Office of the Dean of the College of Education. The instructions for admission to teacher education are found in the introductory section of this bulletin for the College of Education. All students prior to admission must complete the pre-professional skills test (PPST).

**Admission to resident teaching** will occur during the academic semester prior to the year in which the resident teaching semester is anticipated. The announcement of the time of this application will be posted outside the office of the Department of Special Education. Admission to resident teaching will be based upon the following: 1) an

overall grade point average of 2.75 or better, 2) no grade of less than a "C" in all major coursework and selected special requirements for licensure in Minnesota, 3) admission to major program, 4) admission to Teacher Education.

**Admission to minor program** is initiated in the office of the Department of Special Education. Application for the minor may be made concurrent with a student's application to major program or after acceptance into a major program.

## BACHELOR OF SCIENCE

### Special Education Major (50)

Required: (pre-resident teaching) SPED 403, 405, 411, 415, 416, 419, 420 or 421, 431, 436, 438, 445, CDIS 468, MATH 330.

The student must select courses from one of the licensure categories below. All courses must be completed within that category (resident teaching).

- a. Developmental disabilities: SPED 447, 460, 461
- b. Emotional/behavioral disorders: SPED 422, 470, 471
- c. Specific learning disabilities: SPED 446, 480, 481

Special requirements for licensure in Minnesota: HURL 497; HLTH 125, 405; APSY 262\*, 361, 463\*; IM 421\*  
(\*pre-resident teaching).

### Special Education Non Teaching Minor (21)

SPED 403, 405, 411, 415, 419, 436, and 438.

## COURSE DESCRIPTIONS

### 210. Introduction to the Teaching Profession

Study of teaching/learning process from a general education and special education perspective. Includes K-12 teaching characteristics and issues to enhance insights about teaching and aid the career planning process. 2 Cr. DEMAND.

### 420. Characteristics of Students with Physical, Health & Developmental Disabilities

Characteristics and development of students with physical, health and developmental disabilities. Prereq.: 403-503, 415-515. 3 Cr. F, S.

### 422. Emotional/Behavioral Disorders Methods

Intervention approaches for the management of elementary and secondary age students with emotional/behavioral disorders. Prereq.: 421. 3 Cr. F, S.

### 446. 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.: 421. 3 Cr. F, S.

### 447. Developmental Disabilities Methods: Moderate/Severe

Methods and materials for instruction and programming for students with moderate/severe developmental disabilities; techniques for inclusion. Prereq.: 403, 419, 420. 3 Cr. F, S.

### 448. Physical/Health Disabilities Methods

Methods and materials for instructors and programming for students with physical and/or health disabilities; techniques for inclusion. Prereq.: 420. 3 Cr. F, S.

### 449. 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.

### 450. Practicum: Mild/Moderate Secondary Special Education Settings

Field internship in secondary special education program. Diagnosis and programming for educational problems of handicapped students. 4 Cr. F, S.

### 452. Practicum: Mild/Moderate Elementary Special Education Settings

Field internship with mild/moderately handicapped students in elementary settings. 3 Cr. F, S.

### 460. Practicum in Developmental Disabilities: Mild/Moderate

Field internship in elementary/secondary school programs for students with mild/moderate developmental disabilities. 4 Cr. F, S.

### 461. Practicum in Developmental Disabilities: Moderate/Severe

Field internship in elementary/secondary school programs for students with moderate/severe developmental disabilities. 4 Cr. F, S.

### 470. Practicum in Emotional/Behavioral Disorders I.

Field internship in Levels I-III elementary/secondary school programs for students with emotional/behavioral disorders. 4 Cr. F, S.

### 471. Practicum in Emotional/Behavioral Disorders II.

Field internship in Levels IV-VI elementary/secondary school programs of students with emotional/behavioral disorders. 4 Cr. F, S.

### 475. Student Teaching in Early Childhood Special Education

Supervised teaching in early childhood special education programs. Center and home based settings. Required for licensure in early childhood special education. Other coursework for license must be complete. 6 Cr. S, SUM.

### 480. Practicum in Learning Disabilities I.

Field internship in elementary school programs for students with learning disabilities. 4 Cr. F, S.

### 481. Practicum in Learning Disabilities II.

Field internship in secondary school programs for student with learning disabilities. 4 Cr. F, S.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### +403/503. Foundations in Special Education I (MGM)

Historical and philosophical background, handicapping conditions and their implications, legal bases, resources and advocacy. 3 Cr. F, S, SUM.

### 405/505. Methods of Teaching Behavior

Introduction of 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.

### 407/507. 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. 1-3 Undgr. Cr. 1-2 Gr. Cr. DEMAND.

### 408/508. Developmental Screening and Assessment of Young Children

Philosophy, procedures and methodologies used to conduct developmental screening. 3 Undgr. Cr. 2 Gr. Cr. DEMAND.

### 409/409. Foundations in Special Education II.

Curriculum design and adaptation, interface of special education and regular education, individual and group management, delivery systems. 1-3 Undgr. Cr. 1-2 Gr. Cr. DEMAND.

### 411/511. 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.

### 412/512. Psycholinguistics

Symbolic processes involved in communication. Interpretation of data. 3 Undgr. Cr. 2 Gr. Cr. DEMAND.

### 414/514. 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 student learning in the teaching of science and social studies. 3 Undgr. Cr. 2 Gr. Cr. DEMAND.

### 415/515. 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.

### 416/516. 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; ASPY 361. 3 Cr. F, S, SUM.  
**418/518. General Education Reading & Language Arts for the Special Educator**

Basic techniques for reading and language arts diagnosis and teaching in the regular classroom. 3 Undgr. Cr. 2 Gr. Cr. DEMAND.

**419/519. 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.

**421/521. 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.

**431/531. Transition and Interagency Planning**

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.

**434/534. Directed Independent Study of Occupations**

Visitation and observation of work sites, job analysis, survey of human resources, and community analysis. 2 Cr. DEMAND.

**436/536. 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.

**438/538. Special Education Field Experience**

Field experience in special education elementary and secondary settings. Prereq.: 403-503. Co-req.: 419-519. 2 Cr. F, S.

**445/545. Advanced Instructional Design**

Research supported instructional strategies for teaching basic academic skills including reading, math, oral and written expression, and listening comprehension. Prereq.: 403-503, 419-519. 3 Cr. F, S, SUM.

**453/553. Practicum in General Education for the Special Educator**

Field experiences general education (elementary/secondary) settings. Prereq.: 403-503. 1-2 Cr. F, S.

**477/577. Basic Skills/Severely Handicapped Young Children**

Program design and strategies to meet the needs of young children with severe handicaps. 3 Undgr. Cr. 2 Gr. Cr. DEMAND.

## **SPEECH COMMUNICATION (SPC)**

129 MATHEMATICS AND SCIENCE BUILDING/255-2216

**Chairperson** Jeffery L. Bineham **Faculty:** Bineham, Eyo, A. Grachev, Hyde, Japp, Kanengieter-Wildeson, Kassing, Kendig, Litterst, Porter, Pryately, Pucel, Ringer, Ross, Secklin, Spiry, Stangl-Erkens, Stocker, Tompkins, E. Vora, Warne, Wildeson.

The goal of the Speech Communication Department is to extend the knowledge, appreciation and skills that contribute to the full understanding and practice of effective communication. The rhetorical tradition has long been considered central to a liberal education. People must communicate effectively to function well in education, business, politics, government, the community and the family. In addition to offering a variety of major and minor programs, the Speech Communication curriculum is open to all students and is designed to complement and integrate most programs of study. See the department for the most up-to-date program requirements.

## **BACHELOR OF ARTS**

### **Speech Communication Major (36)**

Students must:

1. Complete Area 1 – Communication Foundations.
2. Select one course from each of Areas 2, 3, 4.
3. Select three elective courses.
4. Take at least 50% of their courses at the 300/400-level and at least two courses at the 400 level. SPC 444, 491 and independent studies do not count toward the 300/400-level requirement.

#### **Area 1 – Communication Foundations**

Required: 211, 212, 213, 311, 312; Select one: 411, 412

#### **Area 2 – Collaboration, Advocacy and Change**

221, 222, 223, 321, 322, 323, 421, 422

#### **Area 3 – Global Perspectives and Pluralism**

231, 331, 332, 333, 334, 335, 336, 431, 432

#### **Area 4 – Relational and Professional Communication**

241, 242, 341, 342, 441, 442

### **Speech Communication Supplementary Major (27)**

To be eligible for this major, the student must declare a primary major from another department in the university.

Students must:

1. Complete Area 1 – Communication Foundations (minus 312).
2. Select one course from each of Areas 2, 3, 4.
3. Select one elective course from Areas 2, 3, or 4, or SPC 312.
4. Take at least four of their courses at the 300/400 level and at least two courses at the 400 level. SPC 444, 491 and independent studies do not count toward the 300/400-level requirement.

#### **Area 1 – Communication Foundations**

Required: 211, 212, 213, 311; Select one: 411, 412

#### **Area 2 – Collaboration, Advocacy and Change**

221, 222, 223, 321, 322, 323, 421, 422

#### **Area 3 – Global Perspectives and Pluralism**

231, 331, 332, 333, 334, 335, 336, 431, 432

#### **Area 4 – Relational and Professional Communication**

241, 242, 341, 342, 441, 442

### **Speech Communication Minor (18)**

Required: 211, 212, 213, 311

Select: One course at 400 level

Select: Two electives, one of which must be at 300/400 level

### **Intercultural Communication Minor (21)**

Required: 212, 332, 335, 432

Select one: MINS 201, ANTH 267

Select two\*: SPC 336; AFST 250; ANTH 356; LAST 250, 350; ENGL 269, 270; FREN 341; GER 341; JPN 101, 110, 210; GEOG 270, 486; HIST 338, 350, 352, 354, 370; EAST 363, 364; HURL 201; MGMT 470; POL 251, 337; SSCI 470, or any foreign language course 200-level or above.

*\*In consultation with adviser to be approved by department. Underlined courses are offered at international locations. This minor can also be taken as a B.E.S. minor.*

## **BACHELOR OF SCIENCE (NON-TEACHING)**

### **Speech Communication Interdepartmental Major (54 credits)**

Students must:

1. Complete Area 1 – Communication Foundations.
2. Select one course from each of Areas 2, 3, 4.
3. Select one elective course at 300 or 400 level.
4. Select 24 elective credits from at least two other departments (in con-





sultation with adviser and approved by the department).

5. Take at least 50% of SPC classes at the 300/400 level, and at least two courses at the 400 level. SPC 444, 491 and independent studies do not count toward the 300/400-level requirement.

**Area 1 – Communication Foundations**

Required: 211, 212, 213, 311, 312; Select one: 411, 412

**Area 2 – Collaboration, Advocacy and Change**

221, 222, 223, 321, 322, 323, 421, 422

**Area 3 – Global Perspectives and Pluralism**

231, 331, 332, 333, 334, 335, 336, 431, 432

**Area 4 – Relational and Professional Communication**

241, 242, 341, 342, 441, 442

**BACHELOR OF SCIENCE**

**Teacher Education Licensure Program**

**Speech Communication Major (37) B.S. Teaching**

Required: 211, 212, 213, 331, 332, 492, 291; COMM 220

Select two: 311, 411, 412

Select two: elective at 300/400 level

Select one: CDIS 130, 220, 324 or SPC 231

**Speech Communication Minor (22) B.S. Teaching**

Required: 211, 212, 213, 291, 311, 331, 492

Select one: COMM 220; CDIS 130, 220, 324 or SPC 231

**BACHELOR OF ELECTIVE STUDIES**

**Speech Communication Major (36)**

Completion of any 36 credits BEYOND 192. Students must take at least 18 credits at the 300/400-level and at least six credits at the 400 level. SPC 444, 491, and independent studies do not count toward the 300/400-level requirement. Program must be approved by a department adviser.

**Speech Communication Minor (18)**

Completion of any 18 credits BEYOND 192. Students must take at least 9 credits at the 300/400-level and at least 3 credits at the 400 level. SPC 444, 491, and independent studies do not count toward the 300/400-level requirement. Program must be approved by a department adviser.

**Transfer Students**

The department welcomes students who have completed Speech Communication courses at other universities. Courses may be transferred into the Speech Communication majors or minors with the following restrictions:

1. All **Transfer Majors** must complete at least one-third of their Speech Communication credits in the Speech Communication Department at SCSU. Transfer majors must take all of these credits at the 300/400-level. A minimum of six of these credits must be taken at the 400 level, three of which must be completed by taking SPC 411 or 412. All other requirements for the specific major selected by the transfer student must be met either by courses taken in this department or by equivalent courses transferred in by the student. SPC 444, 491 and independent studies do not count toward the 300/400-level requirement.

2. All **Transfer Minors** must complete at least fifty percent of their Speech Communication credits in the Speech Communication Department at SCSU. Transfer minors must take all of these credits at the 300/400 level and at least three credits at the 400 level. All other requirements for the selected SPC minor option must be met either by courses taken in this department or by equivalent courses transferred in by the student. SPC 444, 491 and independent studies do not count toward the 300/400-level requirement.

**Internships**

Majors and minors seeking a credited Speech Communication internship experience have a choice in designing the major/minor program.

Students may choose to apply all internship credits to university electives (not counted within the major/minor program), or may count from three to eight credits within the major or minor. The internship credits are then added to the major or minor program. Therefore, a 36 credit major without the internship, becomes a 44 credit major with the addition of an 8 credit internship. See adviser and internship director for further details.

## COURSE DESCRIPTIONS

### 171. Speech Anxiety Reduction

Knowledge and skills to help individuals who feel uneasy, anxious or stressed in public or presentational speaking. 1 Cr. F, S.

### +192. Introduction to Speech Communication

Interpersonal communication, small group communication and public speaking. Theory and experience to relate meaningfully, think critically, organize clearly, and speak and listen effectively. 3 Cr. F, S, SUM.

### 202. Special Topics in Speech Communication

Undergraduate seminar on a contemporary rhetorical problem or issue. May be repeated to a maximum of 9 credits. 3 Cr. DEMAND.

### 211. Public Speaking

Theory and practice of public speaking. Introduction to the criticism of public speeches. Prereq.: 192 or equiv. 3 Cr. F, S, SUM.

### +212. Interpersonal Communication

Theory and practice of communication in relationships. Prereq.: 192 or equiv. 3 Cr. F, S, SUM.

### 213. Small Group Communication

Theory and research on small group processes. Participation in and leading of groups. Prereq.: 192 or equiv. 3 Cr. F, S, SUM.

### +221. Performance and Everyday Life

Performance acts embedded in our everyday world show how performance is used to learn about culture, reflect on experience, and act upon the world and self. Prereq.: 192 or equiv. 3 Cr. F.

### 222. Political Communication

Communicative actions people perform in political contexts. Political campaigns, presidential communication, social movements, and religious and reform communication. Prereq.: 192 or equiv. 3 Cr. F, ALT.

### 223. Freedom of Speech: Rights and Issues.

Studies the freedom of speech concept on which the first amendment is based, and traces its application by the Supreme Court to issues in American society. Prereq.: 192 or equivalent. 3 Cr. S.

### 231. Voice and Diction

Description, analysis, and practice of vocal expression to develop effective and context-appropriate voice and articulation. Prereq.: 192 or equiv. 3 Cr. F, S, SUM.

### +241. Effective Listening

Theory and practice related to listening skills in a variety of communication settings. Prereq.: 192 or equiv. 3 Cr. F.

### 242. Communication in Interviews

Theory and practice of communication skills relevant to interview settings. Interviewer and interviewee responsibilities. Prereq.: 192 or equiv. 3 Cr. S.

### 291. Speech Activities

Participation in Forensics and/or Performance of Literature co-curricular activities. One credit per semester of participation. May be repeated for a total of 4 credits. Prereq.: Permission of instructor. F, S.

### 302. Special Topics in Speech Communication

A theoretical or applied communication studies topic. May be repeated to a maximum of 9 credits. Prereq.: 192 or equiv. 3 Cr. DEMAND.

### 311. Introduction to Theories of Communication

Historical and contemporary human communication theories. Applying theories in a communication context. Prereq.: Two of the following: 211, 212, 213. 3 Cr. F, S, SUM.

### 312. Ethics in Human Communication

Ethical issues in public and private human communication. Prereq.: Two of the following: 211, 212, 213. 3 Cr. F, S.

### 321. Communication and Interpersonal Conflict

Theories and methods of managing interpersonal conflict which emphasize collaborative communication. Prereq.: 192 or equiv. 3 Cr. F.

### +322. Argumentation and Advocacy

Construction and critique of reasoned discourse and advocacy. Prereq.: 192, 211, or permission of instructor. 3 Cr. F, S, SUM.

### 323. Speech Writing

Principles of rhetorical style in speech writing, including speech composition theory, model speech analysis, projects, and speech delivery. Prereq.: SPC 211 or permission of instructor. 3 Cr. S.

### 331. Performance and Literature

Theory and practice in performance of literature with a focus on analyzing texts for performance; developing and critiquing performances. Prereq.: 192 or equiv. 3 Cr. F, S.

### +332. Intercultural Communication (MGM)

Application of theories related to communicating with persons from different cultures. Prereq.: 192. 3 Cr. F, S, SUM.

### 333. Nonverbal Communication

Nonverbal messages in relation to verbal interaction. Influence of context, culture, gender, and relationship in analyzing nonverbal phenomena. Prereq.: 192 or equiv. 3 Cr. F.

### 334. Gender and Communication

How human communication shapes and is shaped by gender and culture. Techniques to change oppressive feminine and masculine communication strategies. Prereq.: 192 or equiv. 3 Cr. S.

### 335. Communication and Culture: Asia and the U.S.

Communication patterns in various Asian countries. Comparison with the United States. Improving communication effectiveness. Prereq.: SPC 192 or permission of instructor. 3 Cr. F or S, ALT years.

### 336. Problems in Intercultural Communication

Intercultural issues analyzed from Western and non-western perspectives. Prereq.: 192 or permission of instructor. 3 Cr. S.

### 341. Communication in the Workplace

Theoretical understanding of the contemporary workplace as a system of human forces and communication. Interpersonal communication skills for productive worklife. Professional presentations. Prereq.: 192 or equiv. 3 Cr. F, S.

### 342. Communication in Families and Intimate Relationships

Communication patterns between individuals involved in ongoing, intimate relationships. Family interactions and related communication topics such as nonmarital cohabitation and long-distance relationships. Prereq.: 192 or 212 or permission of instructor. 3 Cr. F or S, ALT years.

### 444. Communication Internship

Department approved and directed field experience with an approved agency. For Speech Communication majors and minors only. Prereq.: Permission of director and 341 or 441. 8-16 Cr. F, S, SUM.

### 491. Undergraduate Assistantship

Assisting in a 100/200-level course in Speech Communication. Prereq.: B average or above for all courses in speech communication. Approval of instructor and chairperson one semester in advance of registration. May be repeated to a maximum of 9 credits. 3 Cr. F, S, SUM.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 402/502. 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 maximum of 9 credits. Prereq.: Senior/graduate standing or permission of instructor. 3 Cr. DEMAND.

### 411/511. 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.

### 412/512. Theories of Persuasion.

Persuasion theories applied to selected communication contexts. Prereq.: 311 or permission of instructor. 3 Cr. F, S, SUM.

**421/521. 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 equiv. 3 Cr. S.

**422/522. Communication and Contemporary Leadership.**

Education for reflective leadership is provided 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 years.

**431/531. 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 years.

**432/532. 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 years.

**441/541. Organizational Communication.**

Nature and flow of communication in modern organizations through applied theory, diagnosis and problem-solving skills. 3 Cr. F; S.

**442/542. Health Communication**

Communication theory and practice in health care contexts. Prereq.: 9 SPC hours beyond 192, or permission of instructor. 3 Cr. F

**452/552. Teaching Speech Communication**

Materials and methods for curricular and co-curricular teaching in the secondary schools. Prereq.: 12 credits of SPC. 3 Cr. F

## STATISTICS (STAT)

139 ENGINEERING AND COMPUTER CENTER  
203-6169/255-3001

*Also see College of Science and Engineering description and requirements.*

**Chairperson** Bayo H. Lawal. **Faculty:** J. Johnson, Lawal, Pascual, Richardson, Robinson, Sundheim.

Statistical methods are used to help solve complex problems in almost all areas of business, government, the physical, social and biological sciences. Statisticians have the opportunity to work on many different kinds of projects. They work with people in other disciplines to help design their studies to ensure the data are properly collected and analyzed. Statisticians have solid backgrounds in applied mathematics and in the use of computers. The demand for statisticians is high and continues to grow, especially for those with a master's degree or strong computer skills. Our program provides a balance between mathematics, statistics, and programming skills necessary to succeed as a statistician. The Statistical Consulting Center and our Statistical Consulting Seminar gives our majors experience in statistical consulting involving real problems. The typical senior project will explore in depth some interesting real problem arising from the consulting center.

An actuary is a business professional who analyzes the financial consequences of risk. Actuaries use mathematics, statistics, and financial theory to study uncertain future events, especially those of concern to insurance and pension programs. This is an attractive career option but it is a highly competitive one and is best pursued by the student with excellent grades in their major courses. Our program is intended to provide a balance between mathematics, statistics, and financial theory needed to succeed as an actuary. The senior project will allow an in-depth investigation into some real problem involving the analysis of risks.

Computer network analysts design networks and evaluate network performance. The demand for these skills is very high. The Network Modeling and Simulation major provides a balance between the theoretical and the practical skills needed to succeed in this field. 'Hands-on' laboratory activities are a part of several courses. A senior practicum will provide an indepth study of a computer networking problem. We encourage all our majors to consider doing an internship.

A student is eligible to apply for admission to a:

- a. Major in Statistics when they have completed MATH 221, 222, STAT 229, 321, or equivalent.
- b. Major in Network Modeling and Simulation when they have completed MATH 211, STAT 229, MCS 267, 397, 425.
- c. Minor in Statistics when they have completed STAT 229, 321, or equivalent.

At the time of application, you must have at least 6 credits in the major or minor taken at St. Cloud State University and you need at least a 2.5 GPA in all courses that apply toward the major or minor and in all university courses including transfer credits. Students are required to earn at least a "C" in all courses in the major or minor and maintain at least a 2.4 GPA in the major or minor in order to graduate.

Visit our website for more information about our courses and program including how to apply for a major or minor. Examples of what statisticians do and where they work can be found there. Also links to other statistics and interesting related sites are given.  
(<http://www.stcloudstate.edu/stat/index.html>)

### BACHELOR OF SCIENCE —STATISTICS (NON-TEACHING)

This program is designed for students seeking to become professional statisticians or actuaries. One of the three emphasis options must be selected. The mathematical statistics option is intended to best prepare the student to go on to graduate school in statistics. The applied statistics option is intended for the student wishing to become a professional statistician but does not intend to eventually pursue a graduate degree in statistics. The actuarial science option is intended for the student wanting to become an actuary. This option also prepares the student well to pursue a graduate degree in actuarial science.

#### Statistics Major (60-65)

(Pending MnSCU approval.)

CORE: (34)

STAT 229<sup>a</sup>, 301, 307, 321, 417, 421, 480

MATH 221, 222, 312

3 elective hours in Programming listed below:

#### Statistics Major: Mathematical Statistics Emphasis (26)

STAT 332, 380, 447, 448; MATH 253, 321, 421 plus 3 elective hours in MATH listed below:

#### Statistics Major: Applied Statistics Emphasis (26)

STAT 332, 380 plus 6 elective hours in STAT listed below:

3 elective hours in Quality Improvement listed below:

2 elective hours in Software Applications and/or Programming listed below:

9 elective hours (listed below) from any of the following areas: BCIS, CSCI, MATH, MCS, or Quality Improvement.

#### Statistics Major: Actuarial Science Emphasis (31)

(Pending MnSCU approval.)

STAT 447, 448 plus 3 elective hours in STAT listed below:

MATH 321, 452, ACCT 291; BCIS 341<sup>b</sup>; ECON 205, 206; FIRE 375 ELECTIVES

STAT: 332, 380, 424, 427, 430, 433, 436, 440, 447, 448

MATH: 325, 353, 452, 453

Programming: CSCI 201, 202, 260, 261; EE 102; MFGE 102; MATH

252; MCS 267

Software Applications: MCS 302, 303, 304; STAT 306

Quality Improvement: MGMT 383, 483, 486; STAT 424; MFG 460

BCIS: 341, 350, 443, 445, 454, 460

CSCI: 220, any course numbered above 300

MCS: 397, 425, 426, 436, 437, 450, 451

\*STAT 219, 239, 353, BCIS 240 or equivalent can substitute for 229.

\*MATH 353 can substitute for BCIS 341.

\*An elective course cannot be used twice in a statistics major program.

### Network Modeling & Simulation Major: (60)

(Pending MnSCU approval.)

CSCI: 201

MCS: 397, 425, 426, 436, 437, 450, 451, 490\*

STAT: 229\*, 301, 307, 321, 417 plus 6 elective hours in STAT listed below:

MATH: 211; ENGL: 333

6 elective hours (listed below) from any of the following areas: BCIS, CSCI, MATH or Software Applications

### ELECTIVES

STAT: 332, 380, 421, 424, 427, 430, 433, 436, 440, 447, 448

MATH: 325, 353, 452, 453

Software Applications: MCS 267, 302, 303, 304; STAT 306

BCIS: 341, 350, 443, 445, 454, 460

CSCI: 202, 220, any course numbered above 300

\*STAT 219, 239, 353; BCIS 240 or equivalent can substitute for 229.

\*3 credit hours of MCS 490

### Statistics Minor

A minor in statistics is a good complement to many different majors. Any field where data is frequently collected and used to make decisions could benefit from a solid background in applied statistics. Students planning on pursuing a graduate degree in their chosen field may find a statistics minor very useful. If you have fairly good quantitative skills and enjoy investigating data to find the "truth" that may lie within the data then you should consider a statistics minor.

### Statistics Minor (16)\*

STAT 229\*, 321\* plus 10 elective hours in STAT listed below:

### ELECTIVES:

STAT: 301, 302, 306, 307, 332, 380, 410, 417, 421, 424, 427, 430, 433, 436, 440, 447, 448.

\*STAT 219, 239, 353, BCIS 240 or equivalent can substitute for 229.

\*BCIS 241 can substitute for STAT 321.

\*At least 9 credits must come from courses not counting toward your major.

### COURSE DESCRIPTIONS

#### +193. Statistical Thinking (GED CORE)

Statistical background to critically read results reported in today's media regarding social, environmental and medical choices; how to collect good data; describe data graphically and numerically; uses and abuses of statistics; understanding variation and statistical significance; modeling chance; statistics in the courtroom, lotteries, opinion polls and other case studies; emphasis on understanding concepts rather than on computations; use of software packages and the internet. Prereq.: MATH 070 or high school advanced algebra with a satisfactory score on the mathematics department pretest. 3 Cr. F, S, SUM.

#### 219. Statistics for the Social Sciences

Descriptive statistics, graphical displays, random sampling, and normal

distribution; introduction to confidence intervals and hypothesis tests for means and proportions; paired t-test, pooled t-test, chi-square test in contingency tables, brief introduction to correlation and simple linear regression; social science applications; use of statistical software package. Prereq.: 193 or MATH 193 or MATH 112 or equivalent. 3 Cr. F, S, SUM.

#### 229. Statistics for the Physical Sciences

Descriptive statistics, graphical displays, random sampling, normal and binomial distributions; confidence intervals and hypothesis tests for means and proportions; paired t-test, pooled t-test, testing for equality for two variances; brief introduction to correlation and simple linear regression; applications from management and physical sciences, use of statistical software package. Prereq.: 193 or MATH 193 or MATH 112 or equivalent. 3 Cr. F, S, SUM.

#### 239. Statistics for the Biological Sciences

Descriptive statistics, graphical displays, random sampling, normal, binomial and poisson distributions; confidence intervals and hypothesis tests for means and proportions; paired t-test, pooled t-test, testing for equality of two variances; chi-square test in contingency tables; introduction to correlation, regression, anova, sampling, design concepts; biology applications; use of statistical software package. Prereq.: 193 or MATH 193 or MATH 112 or equivalent. 4 Cr. F, S, SUM.

#### 301. Introduction to SAS

Meets first 5 weeks of semester; introduction to the SAS statistical package; enter, save, and retrieve data, basic data manipulations such as recoding and selecting subsets data; basic charts, plots, descriptive statistics, t-tests, contingency tables, correlations; export results to word processor; statistical methods and interpretations are not taught but rather the use of the computer software is emphasized. Coreq.: a statistics course or consent. 1 Cr. F, S.

#### 302. Introduction to SPSS

Meets first 5 weeks of semester; introduction to the SPSS statistical package; enter, save, and retrieve data, basic data manipulations such as recoding and selecting subsets of data; basic charts, plots, descriptive statistics, t-tests, contingency tables; correlations; export results, to word processor; statistical methods and interpretations are not taught but rather the use of the computer software is emphasized. Coreq.: a statistics course or consent. 1 Cr. F, S.

#### 306. Statistical Graphics

Meets last 10 weeks of semester; use SAS or SPSS for presentation quality graphics; scatterplots, regression curves, bar charts, 3-dimensional charts, maps, profile plots with error bars, bubble plots, response surfaces, use of color, titles, legends, line styles, fonts and axes labels; multiple plots per page. Prereq.: 301 or 302 or equivalent. 2 Cr. S.

#### 307. Intermediate SAS Programming

Meets last 10 weeks of semester; intermediate programming using SAS; read in complex data, formats, making output look better, if-then-else, merge, arrays, do-loops, macros, use of functions, table look-up, custom reports; Prereq.: 301 or equivalent. 2 Cr. F

#### 321. Regression and Analysis of Variance I.

Correlation, simple linear regression and multiple regression; one and two-way anova; one of the multiple comparison procedures; randomized block design; applications, use of statistical software. Prereq.: 219 or 229 or 239 or 353 or equivalent. 3 Cr. F

#### 332. Survey Planning and Contingency Tables

Important aspects of survey sampling from initial planning phases through collection and storage of the data; chi-square contingency table analyses for two and three way tables; handling of small expected frequencies; matched pairs; measures of association; use of statistical software on large survey data. Prereq.: 219 or 229 or 239 or 353 or equivalent. 3 Cr. S.

#### 353. Statistics for Engineers

Probability distributions; introduction to statistical methods, including hypothesis testing and confidence intervals, oneway anova, simple linear regression, quality control basics; applications, and the use of statistical software. Prereq.: MATH 222 or equivalent. 3 Cr. F, S.

### 380. Statistical Consulting Seminar

Active participation in weekly consulting meetings, communication skills needed to consult effectively with nonstatisticians; learning to recognize when more complex methods would apply; application of statistical methods to real problems at a level commensurate with the students' statistical background; proper interpretation of results; written and oral reports. Prereq.: 321 and 332; or consent of instructor. Coreq.: 301 or 302. 3 Cr. S.

### 444. Internship

Participation in a full or part-time position with a cooperating business, governmental, or civic organization whose program has been approved in advance by the department of statistics. Credits are provided upon completion of all requirements of the internship. Can substitute for STAT 480 if approved by the department. Any remaining credits apply to university electives for graduation. Prereq.: By permission only. 3-12 Cr. F, S, SUM.

### 480. Senior Project

One moderately complex project; directed readings in the statistical literature; meet with faculty for guidance; written and oral presentation. Prereq.: Senior standing. 3 Cr. F, S.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 410/510. 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.

### 417/517. Applied Probability and Simulation

Probability distributions and random variables, simulation of random variates, probability modeling, applications to Markov chains, queueing models, reliability and survival; use of software. Prereq.: One programming course and MATH 211 or equivalent. 3 Cr. S.

### 421/521. 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 effects models, variance-stabilizing transformations, three-way anova; use of statistical software. Prereq.: 321 or equivalent. Coreq.: 301. 3 Cr. F.

### 424/524. Statistical Design 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.

### 427/527. 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.

### 430/530. 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.

### 433/533. 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.

### 436/536. 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.

### 440/540. Topics in Statistics

Study of modern topics in theoretical or applied statistics. Prereq.: Permission of instructor. 3 Cr. May be repeated to maximum of 6 Cr. S.

### 447/547. 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.

### 448/548. 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. Cr. S.

## TEACHER DEVELOPMENT (ED)

A132 EDUCATION BUILDING/255-3007

*Also see College of Education description and requirements.*

**Chairperson** Jan L. Hintz. **Faculty:** Bacharach, Bouchie, Davis, Davison, D. Heine, P. Heine, Hintz, Hornstein, Kazemek, Kelsey, Kochmann, Louisell, T. Miller, Romanish, Scott-Halverson, Serrano, Steeves, Subrahmanyam, Tabakin, Tennison, Ulrich

### The Department of Teacher Development includes the following programs:

- Elementary/K-8 Education major
- Reading instruction minor
- B.S. majors in 5-12 education, PreK-12 education

### General Requirements

The requirements of teacher licensure programs with majors in elementary/K-8 and 5-12 or PreK-12 teaching areas require participation in a variety of learning activities, some of which occur away from the SCSU campus.

Be advised that in making application for a teaching field you are agreeing to make a reasonable effort to provide or obtain transportation or other resources necessary to participate in the activities required by the program and to accept the associated risks. Proof of professional liability insurance and CPR/First Aid certification will be required for field experiences.

All students seeking elementary/K-8, 5-12 and PreK-12 teaching licenses have three procedural responsibilities to complete as part of the professional education requirements.

1. Admission to major program. This procedure is a function of the department or center to which the major is assigned. See information listed under the various academic units for details.

2. Admission to Teacher Education. Admission to Teacher Education requires taking the Pre-Professional Skills Test (PPST) which must be completed before students can enroll in selected upper-level courses. This procedure is a function of the Office of the Dean of the College of Education. See information provided under College of Education.

3. Admission to student teaching. This procedure is a function of the Department of Teacher Development. Applications for student teaching assignments for the following academic year are initiated during fall semester. Please see requirements listed under Elementary/K-8



Program and/or 5-12, PreK-12 Education Program, Department of Teacher Development.

The student teaching experience takes place in cooperating school districts. The Elementary/K-8 experience is taken during the senior year and is part of two semester blocks. Student teaching for 5-12 and PreK-12 teaching licenses is one full semester taken during the senior year. Some major departments will require a seminar during student teaching.

All student teachers are encouraged to participate in community activities and study community life. It is the responsibility of the students to make their own housing arrangements and bear the expenses for housing and transportation involved during off-campus assignments.

Prospective education field students need to make long-range plans for their total university program at an early date if they are to receive maximum benefits from the student teaching experience.

The college reserves the right to consider as part of admission to student teaching those personal qualities, general health, conduct, or other standards judged to be appropriately related.

Where a question exists regarding a student's eligibility for admission to student teaching for reasons beyond the academic record, a review will be conducted through the Office of the Dean of the College of Education. Revisions of requirements for admission to student teaching are under consideration. Students should check with the Department of Teacher Development regarding current admission standards.

## BACHELOR OF SCIENCE

### Elementary/K-8 Education

Admission requirements:

1. Completion of ED/CF5 200 with grade of "C" or higher.
2. Overall GPA of 2.75 or higher.
3. If a transfer student's GPA is less than 2.75, the student must meet departmental criteria to be admitted to program.
4. Completion of major program application form with adviser's signature.

ED/CF5 200 is a prerequisite for all other elementary education courses.

The elementary education major is designed to develop teachers who:

1. Collaborate with other teachers, administrators, parents and children in creating an educational community within a school setting.
2. Enrich and integrate the curriculum through the application of their knowledge in the various disciplines related to programs in elementary schools;
3. Implement understanding of child growth and development characteristics and sensitivity to the needs of students into their classroom teaching responsibilities;
4. Apply knowledge of various theories and philosophies of teaching and learning to developing a teaching style, to making curriculum choices and changes and to choosing appropriate employment opportunities;
5. Assess and apply present educational practices and programs in the context of various learning theories, philosophies and needs specific to the community; and
6. Assess and apply a variety of classroom materials and methodologies related to current educational concerns in the context of various learning theories, philosophies and needs specific to the community.

Students who complete this curriculum are recommended to receive a license qualifying them to teach in Minnesota elementary/middle schools.

Qualification in this field requires completion of the following courses for the elementary education major. In addition, students must

complete the general education requirements and related content courses to meet Minnesota licensure requirements.

### Elementary/K-8 Education Major (87 credits)

The elementary education program leads to licensure in grades K-8. Students must complete the following required courses:

ED/CF5 200; ED 305, 315, 310, 411, 412, 413, 414, 415, 416, 417, 418; MATH 330; SCI 226; SSCI 320; ART 296; MUSE 201; IM 421 APSY 361, 262; SPED 407, 409; PESS 398; HLTH 405; HURL 497

In addition to required courses the K-8 program requires two cognates (or areas of concentration). The State of Minnesota requires an area of concentration in math, science, social studies or language arts. In addition, students must choose an additional cognate from the list below or complete additional credits in math, science, social studies or language arts to complete the minor in those disciplines.

ESL, Technology, Primary/Kindergarten  
SPED, Early Childhood, Early Literacy

### Elementary Education Blocks K-4 and 5-8 Inclusive of Student Teaching

1. Admission to the elementary education major program (overall GPA of 2.75).
2. Admission to Teacher Education (see College of Education)
3. Overall GPA of 2.75 or higher.
4. Grade of "C" or higher in Department of Teacher Development courses (those courses with the ED prefix).
5. Grade of "C" or higher in all College of Education courses.
6. Satisfactory completion of all courses required in the major except K-4 and 5-8 blocks.

### Reading Instruction Minor (18)

The reading instruction minor for elementary/K-8 education majors has a three-fold purpose. First, it gives the education major an overview of the total reading program for pupils as they progress through their elementary and secondary school experiences. It also gives an overview of literature for all ages. Finally, it gives the education major a background in working with children who have reading problems.

The reading instruction minor is designed to help the prospective teacher become a more proficient teacher of reading at both the elementary and middle levels.

Required courses:

ENGL 353, ED 373, 470, 471, 472, 474

### Pre K-12 and 5-12 Teaching Licenses

The requirements of major fields of study appropriate for Minnesota teaching licensure in PreK-12 and 5-12 areas are described by the following program areas in the bulletin:

Art  
Communication Arts/English  
English as a Second Language  
Foreign Languages  
Health  
Industrial Studies  
Mathematics  
Music  
Physical Education  
Science  
Social Studies  
Theatre/Dance

Students must have an adviser in their major subject area and also in the Department of Teacher Development.

### Professional Education Sequence

ED/CF5 200; APSY 262, 361; HURL 497; IM 421; HLTH 405 are all to be completed successfully (with a grade of "C" or better) before ED

421/521, 431/531 and 437/537, 447/547 can be taken. (ED 437/537 and 447/547 are not required for Pre K-12 teaching licensure areas.) CPR/First Aid certification must also be completed prior to ED 421/521, 431/531 and 437/537, 447/547.

All professional education courses must be successfully completed (with a grade of "C" or better) prior to student teaching. In addition, students must have the approval of their major department, 2.5 grade point average, and admission to Teacher Education. Student teaching requires full day, full semester commitment of the student teachers. Some major departments require a seminar during student teaching. Application for student teaching is required at least two semesters prior to the semester of student teaching. Information meetings about student teaching are held each fall semester.

## COURSE DESCRIPTIONS

### 200. Introduction to Education

Will introduce students to the broad field of education including a focus on children and families, the role of the teacher, the role of schools and educational programs in communities and the broader society, history and philosophy of education, educational futures, teacher education knowledge base, and contemporary issues. Includes field experience in area schools.

3 Cr. F, S.

### +250. Children's Rights (MGM)

Analysis of issues related to children's rights. 3 Cr. DEMAND.

### 305. Foundations and Issues of Curriculum and Instruction

A critical analysis of the foundations of school curriculum and instruction. Exploring curricular issues for democracy and diversity. Prereq.: ED/CFS 200. 3 Cr. F, S.

### 310. Children's Literature in the Elementary and Middle School Classroom

An exploration and evaluation of all types of literature for children and young adults. This includes the promotion of lifelong reading among children through the development of classroom strategies and experiences. Co-req.: ED 315 (1 credit field experience). Prereq.: ED/CFS 200. 2 Cr. F, S.

### 315. School Experience

A school based experience involving the exploration, evaluation, and utilization of children's literature. Co-req.: ED 310, Children's Literature in Elementary and Middle School Classroom. Prereq.: ED/CFS 200. 1 Cr. F, S.

### 351. Kindergarten Education

Aims, methods, philosophy, continuity of growth problems in kindergarten education. Prereq.: ED/CFS 200. 3 Cr. F, S.

### 371. Reading I: Basic Skills

Basic techniques for reading instruction. Prereq.: ED/CFS 200. 3 Cr. DEMAND.

### 373. Reading: Early Skills

Examines foundations of language and the communication process as it affects early reading behaviors. Development of pre-reading skills and methods for stimulating verbal expression. Prereq.: 371. 3 Cr. DEMAND.

### +374. Multicultural Children's Literature (MGM)

Examines cultural and religious differences and similarities, contributions of women and minority groups to literature and the social issues and forces of discrimination. 3 Cr. DEMAND.

### 375. Reading: Materials for Classroom Use

An intensive study of materials used in teaching beginning reading. All



age groups are considered. Prereq.: 371. 3 Cr. DEMAND.

### 376. Reading: Current Research

An investigation of current research and its implications for teaching techniques and procedures in reading instruction. Prereq.: 371. 3 Cr. DEMAND.

### 403. Contemporary Math and Science Curriculum K-8

Hands-on, activity based overview of contemporary math and science curriculum, K-8. Includes a literature review of recent K-8 programs. Includes philosophy, rationale, sample activities, and relevant assessment. 3 Cr. DEMAND.

### 411. Instructional Methods in Developing Literacy 5-8

Theories of literacy development, instructional strategies, and assessment tools which create a literacy curriculum that addresses the needs of diverse learners in early adolescence. Co-req.: ED 413, 415, 417. Permission required. 3 Cr. F, S.

### 412. Instructional Methods in Emerging Literacy K-4

Theories of literacy development, instructional methodologies, and assessment tools which creates a literacy curriculum that addresses the needs of diverse learners in the primary grades. Co-req.: ED 414, 416, 418. Permission required. 4 Cr. F, S.

### 413. Instructional Methods in Math/Sci/SS 5-8

Prepare teachers to facilitate early adolescents in significant explorations and actions on the world through the use of appropriate mathematical, scientific inquiry and information gathering tools. Co-req.: ED 411, 415, 417. Permission required. 3 Cr. F, S.

### 414. Instructional Methods in Math/Sci/SS K-4

Prepare teachers to facilitate early adolescents in significant explorations and actions on the world through the use of appropriate mathematical, scientific inquiry and information gathering tools. Co-req.: ED 412, 416, 418. Permission required. 3 Cr. F, S.

### 415. Organization and Management in the Middle Grades 5-8

Orientation to middle school and middle grades classroom environments. Management, organization, and instructional procedures appropriate to the developmental needs of early adolescents in a pluralistic society. Co-req.: ED 411, 413, 417. Permission required. 3 Cr. F, S.

### 416. Organization and Management in Kindergarten/Primary Classroom

Development of appropriate practices, organization, management in

kindergarten/primary classroom environments. Emphasis on child centered learning. Co-req.: ED 412, 414, 418. Permission required. 2 Cr. F, S.

#### 417. 5-8 Student Teaching

Supervised teaching for students seeking K-8 licensure. Co-req.: ED 411, 413, 415. Permission required. 5 Cr. F, S.

#### 418. K-4 Student Teaching

Supervised teaching for students seeking K-8 licensure. Co-req.: ED 412, 414, 416. Permission required. 5 Cr. F, S.

#### 461. Kindergarten Teaching

Supervised teaching in the kindergarten. Required for elementary majors with kindergarten endorsement. Prereq.: 351, 463. 6 Cr. F, S.

#### 463. Elementary School Teaching

Supervised teaching in the elementary school for students on elementary school curriculum. 3-12 Cr. DEMAND.

#### 466. Secondary School Teaching

Supervised teaching in the secondary school for students on secondary school curriculum. 6-12 Cr. F, S.

#### 467. Special Area Teaching; K-12

Supervised teaching for students with majors in fine arts, music, industrial arts, health and physical education. 3-12 Cr. F, S.

#### 470. Early Literacy: The Social and Political Dimensions

An exploration of the social, political and economic context – television, internet, film, day care, community, graffiti, advertising and schools – within which reading and writing develop. How curriculum and instruction in the elementary classroom respond to the dynamics of this multifaceted experience of literacy. Prereq.: ED 310, 315. 3 Cr. DEMAND.

#### 474. Advanced Children's Literature

A further exploration and evaluation of all types of literature for children. In-depth teaching strategies and techniques for facilitating emergence and developing readers. Prereq.: ED 310, 315. 3 Cr. DEMAND.

### COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

#### 421/521. Cultural 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. Co-req.: ED 431-531. Prereq.: ED/CFS 200; APSY 262, 361; IM 421; HURL 497; HLTH 405; CPR/First Aid Certification. 3 Cr. F, S.

#### 424/524. Mainstream Science and 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.

#### 431/531. Curriculum and Instruction

Curriculum, instruction and assessment in the PreK-12 setting. The role and responsibilities of the subject area and special area teacher. Co-req.: ED 421/521. Prereq.: ED/CFS 200; APSY 262, 361; IM 421; HURL 497; HLTH 405; CPR/First Aid Certification. 3 Cr. F, S.

#### 437/537. 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. Co-req.: ED 447/547. Prereq.: ED/CFS 200; APSY 262, 361; IM 421; HURL 497; HLTH 405; CPR/First Aid Certification. 3 Cr. F, S.

#### 447/547. 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. Co-req.: ED 421/521. Prereq.: ED/CFS 200; APSY 262, 361; IM 421; HURL 497; HLTH 405; CPR/First Aid

Certification. 3 Cr. F, S.

#### 457/557. 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.

#### 458/558. Literacy for L-2 Learners

Socio-psycholinguistic process of second-language literacy learning. Speech and print relationships, literacy emergence, strategies for reading/writing development and integration of language and literacy across the curriculum, K-12. Prereq.: Introduction to ESL or teaching experience or permission of instructor. 3 Cr. SUM.

#### 459/559. 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.

#### 464/564. 5-12 Student Teaching I

Supervised teaching for students seeking 5-12 teacher licensure. Permission required. 6 Cr. F, S.

#### 465/565. 5-12 Student Teaching II

Supervised teaching for students seeking 5-12 teacher licensure. Permission required. 6 Cr. F, S.

#### 468/568. PreK-12 Student Teaching I

Supervised teaching for students seeking PreK-12 teacher licensure. Permission required. 6 Cr. F, S.

#### 469/569. PreK-12 Student Teaching II

Supervised teaching for students seeking PreK-12 teacher licensure. Permission required. 6 Cr. F, S.

#### 471/571. Reading: Analysis and Correction of Disabilities in the Classroom

Causes of reading difficulties and procedures to diagnose and correct them. Prereq.: a developmental reading course, 371. 3 Cr. DEMAND.

#### 472/572. 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.

#### 473/573. 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.

#### 482/582. Multicultural Child

Learning styles of Afro-American, Native American, Asian-American and Latino-American children. 3 Cr. DEMAND.

#### 483/583. 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.

### DEPARTMENT OF THEATRE AND FILM STUDIES (THFS)

202 PERFORMING ARTS CENTER/255-3229

**Chairperson** Brenda Wentworth. **Faculty:** Borron, Chisholm, Holder, Perrier, Sandberg, Vorder Bruegge, Wentworth.

#### Theatre

St. Cloud State University is an accredited institutional member of the National Association of Schools of Theatre. Our faculty is committed to providing the most comprehensive undergraduate theatre education in Minnesota.

Theatre students choose between two degree options, both of which balance rigorous academic course work with extensive theatre

production experience. The Bachelor of Arts is designed for those students interested in careers in the theatre, including acting, directing, design, technical theatre, and management. This program of study also provides excellent preparation for the student who wishes to pursue graduate studies in the performing arts. The Bachelor of Science is geared for students interested in teaching middle school and high school drama, and is taken in conjunction with a program of study determined by the College of Education. Both of these degree options provide students with a thorough background in dramatic literature, history, and theory, and give students opportunities for intensive study in performance, directing and advanced design.

#### BACHELOR OF ARTS

##### Major (46)

THFS 235, 236, 240 or 244, 148 or 248, 250, 349, 466, 481, 482, 491, 492;  
4 Cr. from 271/371, 272/372, 273/373, 274/374, 275/375, 276/376, 277/377, 278/378  
Theatre electives: (9) (one must be a design class)

##### Minor (27)

THFS 235, 236, 148 or 248, 349 or design elective, 481 or 482, 491 or 492  
Theatre electives: (9)

#### BACHELOR OF SCIENCE - THEATRE

##### Major (45)

THFS 235, 236, 240, 148 or 248, 250, 349, 430, 481, 482, 491, 492; 3 cr. from 271/371, 272/372, 273/373, 274/374, 275/375, 276/376, 277/377, 278/378  
Theatre electives: 9 (one must be a design class).

##### Minor (27)

THFS 235, 236, 148 or 248, 349 or design elective, 481 or 482, 491 or 492  
Theatre electives: 9

#### Film Studies

In a world which demands that we all become more visually literate, the Film Studies program at St. Cloud State University provides students with the means to analyze this powerful medium.

Students in this program study all forms and genres of film, examine works from the silent era to the present day, and compare and contrast films from around the globe. The Film Studies minor is not a program in film production; rather it is a concentrated curriculum which focuses on motion picture aesthetics, history and theory. The minor is designed to provide a critical appreciation of film and a background for students preparing for advanced study in the discipline. The minor can also serve as an effective complement to many undergraduate majors at SCSU.

#### BACHELOR OF ARTS - FILM STUDIES

##### Minor (30)

THFS 260, 451, 452, 453, 461  
Film studies and interdepartmental electives: (15)  
To be selected from THFS 175, 264, 285, 363, 364, 365 and COMM 273, 274, 275.

#### COURSE DESCRIPTIONS - THEATRE

##### +140. Introduction to Theatre and Film

Appreciation of theatre and film as artistic, cultural, and social forces. Lectures and films. Not open to theatre majors and minors. Lab. 3 Cr. F, S, SUM.



##### +148. Acting for Everyone

Expressiveness through the crafts of acting. Exploring self-awareness, body dynamics, vocal dynamics, inner states of being and outer states of expression. 3 Cr. F, S, SUM.

##### 235. Script Analysis

Theory, analysis, and criticism of plays. Prerequisite for theatre majors and minors. Lab. 3 Cr. F

##### 236. Introduction to Production

Design and construction of stage scenery. Prerequisite for theatre majors and minors. Lab. 3 Cr. S.

##### 237. Technical Production Methods

Problems involved in the construction and rigging of stage scenery. Lab. Prereq.: 236 3 Cr. S, ALT.

##### 239. Theatre Graphics

Rules and techniques of two and three dimensional drawing for the theatre. 3 Cr. F, ALT.

##### 240. Stage Make-up

Theory and practice of make-up techniques. (Prereq.: 235 or permission of instructor.) 3 Cr. F

**244. Costume History**

Historical study of clothing to illustrate and delineate the evolution of the garment from classical time to the present. 3 Cr. F, ALT.

**246. Costume Construction**

Analyzing and interpreting the costume designer's sketch and reproducing the design in the form of garment. Lab. 3 Cr. S, ALT.

**248. Acting I.**

Basic acting skills and inner resources through exercises, improvisations, and emphasis on scenes from plays. 3 Cr. F

**250. Voice Production for the Actor**

Training and development of the voice for theatrical performance. Breathing/vocal exercises and International Phonetic Alphabet; diction and performance evaluations. 3 Cr. S.

**+270. American Musical Theatre**

The development of the American musical theatre. Form and structure of the contemporary musical play. 3 Cr. DEMAND.

**271, 371. Theatre Practicum: Acting I, II**

Acting in a theatre production. 1 Cr. F, S.

**272, 372. Theatre Practicum: Costumes I, II**

Providing costumes for a theatre production. Forty hours of crew work required. 1 Cr. F, S.

**273, 373. Theatre Practicum: Scenery I, II**

Providing scenery for a theatre production. Forty hours of crew work required. 1 Cr. F, S.

**274, 374. Theatre Practicum: Box Office/Public Relations I, II**

Staffing a box office, selling tickets, and publicizing a theatre production. Forty hours of crew work required. 1 Cr. F, S.

**275, 375. Theatre Practicum: Stage Management I, II**

Stage managing a theatre production. 1 Cr. F, S.

**276/376. Theatre Practicum: Lighting I, II**

Providing lighting for a theatre production. Forty hours of crew work required. 1 Cr. F, S.

**277/377. Theatre Practicum: Sound I, II**

Providing sound for a theatre production. Forty hours of crew work required. 1 Cr. F, S.

**278/378. Theatre Practicum: Props I, II**

Providing properties for a theatre production. Forty hours of crew work required. 1 Cr. F, S.

**280. The Play-Going Experience**

Play study from script to actual production. Approximately ten plays will be studied and seen at St. Cloud and Twin Cities theatres. Lab fee: theatre tickets. 3 Cr. DEMAND.

**342. Stage Lighting Design**

Lighting for the stage. Prereq.: 236. Lab. 3 Cr. F, ALT.

**345. Costume Design**

Researching, analyzing, and designing clothing for the characters created and portrayed by the actor. Prereq.: 235, 244. 3 Cr. DEMAND.

**346. Scenic Design I.**

Theory and practice of designing stage scenery. Prereq.: 236. Lab. 3 Cr. F, ALT.

**348. Acting II.**

Analyzing and creating a stage character. Prereq.: 235, 248. Permission of instructor. 3 Cr. S.

**349. Directing I.**

Selecting, analyzing, casting and rehearsing plays for production. Permission of instructor. Prereq.: 235, 148 or 248. 3 Cr. F

**351-359. Creative Projects**

Projects in all areas of theatre. Permission of department. Theatre majors only. 1-9 Cr. per area. F, S.

**380. Theatrical Sound Design**

Design and implementation of reinforcement and motivational sounds for theatrical production. Prereq.: 235, 236. 3 Cr. S, ALT.

**390. Stage Management**

Theories and practices to effectively manage a theatrical production effectively. Prereq.: 235, 236. 3 Cr. F, ALT.

**436. Scene Painting**

Analysis and application of scenic painting materials. Survey of color media, drawing techniques and technical painting. 3 Cr. F, ALT.

**440. Advanced Stage Makeup**

Advanced techniques in makeup for the stage using prosthetics and other devices. Prereq.: 240. 3 Cr. DEMAND.

**450. Advanced Voice and Movement**

Advanced development of vocal and physical techniques in creating a character; including dialect and character voices. Prereq.: 248, 250. 3 Cr. S, ALT.

**466. Seminar in Theatre**

Integrative theatre experience. Permission of instructor. 3 Cr. S.

**COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS**

**430/530. Teaching Theatre**

Materials and methods for teaching in the secondary school. 3 Cr. DEMAND.

**444/544. Internship in Theatre**

In-residence training with a cooperating professional theatre. A maximum of 6 credits may be used toward major; none toward minor. Permission of department. 3-6 Cr. F, S, SUM.

**449/549. Directing II.**

Advanced directing techniques. Prereq.: 349. Permission of instructor. 3 Cr. S.

**470/570. Advanced Lighting Design**

Thrust, arena, and quasi-theatrical lighting techniques. Prereq.: 342. Lab. 3 Cr. S, ALT.

**481/581. Theatre History I.**

The theatre from its origins to the mid-nineteenth century. 3 Cr. F, ALT.

**482/582. Theatre History II.**

The theatre from the mid-nineteenth century to the present day. 3 Cr. S, ALT.

**491/591. Drama I.**

World drama; from its origins to the 18th Century. Prereq.: 235 or permission of instructor. 3 Cr. F, ALT.

**492/592. Drama II.**

World drama; from the 18th through the 20th century. Prereq.: 235 or permission of instructor. 4 Cr. S, ALT.

**496/596. 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.

**COURSE DESCRIPTIONS – FILM STUDIES**

**+175. The Impact of Film**

Ways movies reflect and shape hopes, dreams and aspirations. Films from a particular era or movement. Background lectures, discussions, film viewings. Lab. 3 Cr. F, S, SUM

**+260. Understanding Movies**

Identification, definition and basic analysis of film form and function. Lab. 3 Cr. S.

**264. Studies in Film**

Selected subjects in film such as the female image, the gangster, science fiction, comedy, design, animation, etc. May be repeated, without repetition of content, to a maximum of 9 credits. Lab. 3 Cr. F, S.

**285. The Gay and Lesbian in Film**

Ways in which gay/lesbian characters, themes and issues are portrayed in film and television. Film viewings, discussion. Lab. 3 Cr. S.

**363. Script and Screen**

Relationship between the written source and the completed film. Primary emphasis is on film adaptation, rather than on literary analysis. This is not a course in writing screenplays. Lab. 3 Cr. DEMAND.



### 364. National Film Movements: Selected Topics

Extensive study of one nation's films or a specific movement within a particular culture. May be repeated, without repetition of content, to a maximum of 9 credits. Lab. 3 Cr. DEMAND.

### 365. Film Directors

Intensive study of the career, style and technique of a major filmmaker such as Hitchcock, Allen, Welles, Bergman, Scorsese. May be repeated, without repetition of content, to a maximum of 9 credits. Lab. 3 Cr. DEMAND.

### 451. Film Before 1936

Origins and development of motion pictures to 1935. Background lectures, readings, film viewings, discussions. Lab. 3 Cr. S.

### 452. Film: The Studio Era

Origins, character and impact of the movies of the 1930s, 1940s and 1950s; ideas, genre, styles, directors, actors. Lab. 3 Cr. S.

### 453. 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. S.

### 461. Seminar in Film Studies

Research in the interrelationships inherent in film history, theory, and criticism. Group and individual conferences, discussions, reports, projects. Permission of instructor. Lab. 3 Cr. S.

## WOMEN'S STUDIES

B120 EDUCATION BUILDING/255-4928

**Director** Patricia A. Samuel. **Faculty committee:** Brennan, Fish, Gill, Glade, Goeke, Hakim, Harles, Hemmer, C. Johnson, Jurgens, Kellogg, LaDue, Mittlefehldt, Olsen, Parrott, Robin Rockenstein, Scheel, Stadum, Tademe, Thornberg.

Women's Studies is a multidisciplinary program designed to enhance the student's understanding of women as a distinct group with its own history, experience, needs and achievements. The courses are of value to students interested in broadening their knowledge of society and awareness of institutionalized forms of discrimination against women. For women students, the program also offers an opportunity for increased self-understanding. A wide variety of electives, independent study and internship opportunities allows students to develop programs of study corresponding to their own interests and career goals. Persons majoring in the liberal arts, education social work, public service, business, or in pre-professional programs such as law or medicine find women's studies of particular value.

### BACHELOR OF ARTS, BACHELOR OF SCIENCE AND BACHELOR OF ELECTIVE STUDIES

#### Minor (18)

Required (9 credits): WS 201, 415, MINS 405 Electives (9 credits): No more than six credits or two courses (whichever is greater) from any of the following groups. At least 5 credits of electives must be from upper division courses.

- Women's Culture & Contributions: AVIT 105, AMST 302, 490; ART 439; ENGL 493; HIST 356, 357.
- Women-Social Structures: WS 325, 425; BIOL 215; CJS 201; GERO 415;

HURL 201, 411, PHIL 112; PSY 225, 427; SOC 273, 355.

- Women's Resistance: WS 345, 444, 445, WS/HURL 406; HLTH 255, HURL 491, 492.

With approval of the women's studies adviser, electives may include new courses with a women's studies focus offered under departmental seminar numbers, or as experimental courses, or as workshops.

Four credits of an internship in women's studies may be counted toward the minor.

## COURSE DESCRIPTIONS

### +201. Introduction to Women's Studies (MGM)

Women's lives, contributions, and culture; history and social institutions (family, media, schools, etc.) from perspective of women. Integrated lab. 3 Cr. F, S, SUM.

### 305. Topics in Women's Studies

A selected topic in women's studies. Specific topics to be listed in the class schedule. May be repeated under different topics to a maximum of 6 credits. 1-3 Cr. DEMAND.

### 325. Violence and Women

Violence and its impact on women. The relationship between knowledge formation and public policy on topics such as sexual harassment, pornography, rape, and courtship/dating violence. 3 Cr. F

### 345. Practicum in Women's Studies

Application of theory and research to constructive institutional and social change to improve women's lives. Prereq.: 201 and consent of instructor. May be repeated to maximum of 3 credits. 1-3 Cr. F, S, SUM.

### 425. Women's Legal Rights

The uses and limitations of the law in achieving women's rights. Constitutional controversies, equal opportunity in employment, and family law. 3 Cr. F, ALT.

### 444. Internship

Supervised research or training opportunities provided by women oriented social service and government agencies or by women's organizations. Maximum of 5 credits can be counted towards minor. Prereq.: 9 credits of women's studies, including 201. 3-15 Cr. F, S, SUM.

## COURSES FOR ADVANCED UNDERGRADUATE AND GRADUATE STUDENTS

### 406/506. 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.

### 415/515. 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.

### 445/545. Women and Computers

Gender issues in computer technology; the computer as a tool to enhance feminist research; applications of feminist pedagogy and multimedia techniques to disseminate feminist research. Integrated lab. Prereq.: 201 or PSY 225 and consent of instructor. 3 Cr. S.



## FACULTY AND ADMINISTRATION

### SCSU ADMINISTRATIVE OFFICERS

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Suzanne Williams, Vice President for Academic Affairs  
Eugene A. Gilchrist, Vice President for Administrative Affairs  
Lee Bird, Vice President for Student Life and Development  
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### MINNESOTA STATE COLLEGES AND UNIVERSITIES BOARD AND TRUSTEES

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**Abartis, Caesarea (1977)**

Professor of English

A.B. 1967, Duquesne University; M.A., 1969, Ph.D. 1977, Southern Illinois University at Carbondale

**Abicht, Anne (1984)**

Director, Athletic Media Relations

B.A. 1981, University of Minnesota-Duluth

**Acheson, Kerri L. (1997)**

Associate Professor of Marketing and General Business

B.S. Ed. 1974, University of North Dakota; M.S. 1977, Utah State University; Ph.D. 1989, University of Southern California

**Addicott, James T. (1968)**

Assistant Professor of Geography

B.S. 1959, University of North Dakota; B.S. 1966, Moorhead State University; M.A. 1968, University of Kentucky; D.A. 1983, University of Northern Colorado

**Ahmad, Shahzad (1990)**

Director, Minority Student Programs

B.A. 1989, M.S. 1997, St. Cloud State University

**Ahmad, Soheli (1997)**

Assistant Professor of Management

B.S.M.E. 1987, Bangladesh Institute of Technology; M.S.I.E. 1992, University of Alabama

**Ahmed, Niaz (1991)**

Associate Professor of Mass Communications

B.A. 1981, University of Dhaka; M.S. 1986, City University of New York-Brooklyn College; Ph.D. 1996, University of Southern Mississippi

**Aiken, Joseph G. (1969)**

Professor of Art

B.A. 1963, M.F.A. 1968, University of Washington

**Akubue, Anthony I. (1990)**

Professor of Environmental and Technological Studies

B.B.A. 1980, M.B.A. 1982, Marshall University; Ed.D. 1989, West Virginia University

**Alessio, John (1984)**

Professor of Sociology and Anthropology

B.A. 1970, Loyola University of Chicago; M.A. 1973, Eastern Illinois University; Ph.D. 1981, Southern Illinois University at Carbondale

**Allen, Laurel D. (1997)**

Affirmative Action Officer

B.A. 1994, San Francisco State University; M.P.A. 1996, Golden Gate University

**Allen, Thomas O. (1966)**

Professor of Music

B.Mus. 1962, M.Mus. 1966, University of Colorado-Boulder; D.A. 1991, Ball State University

**Altobelli, James S. (1986)**

Director of Imaging, University Communications

B.S. 1986, M.S. 1993, St. Cloud State University

**Anderson, Alan C. (1965)**

Associate Professor of Earth Sciences

B.S. 1963, St. Cloud State University; M.S. 1965, Colorado State University

**Anderson, Derwyn L. (1968)**

Associate Professor of Psychology

B.A. 1965, North Park College and Theological Seminary; M.A. 1967, Ph.D. 1968, University of North Dakota

**Anderson, Gail Nygaard (1992)**

Assistant Professor of Communication Disorders

B.S. 1963, Ph.D. 1996, University of Minnesota-Twin Cities; M.A. 1964, Ohio State University

**Anderson, Garry G. (1971)**

Professor of Earth Sciences; Chairperson

B.A. 1962, University of Northern Iowa; M.A.T. 1967, M.A. 1969, Ph.D. 1971, Indiana University at Bloomington

**Anderson, James B. (1966)**

Professor of English

B.A. 1958, M.A. 1961, Southern Illinois University at Carbondale; Ph.D. 1977, University of Iowa

**Anderson, Jerrill L. (1985)**

Assistant Professor; Highway Traffic Safety Center

B.S. 1984, St. Cloud State University

**Anderson, Myron G. (1965)**

Professor of Philosophy

B.A. 1951, M.A. 1954, University of Minnesota-Twin Cities; Ph.D. 1959, Brown University

**Anderson, Steven L. (1989)**

Assistant Professor of Aviation

B.S. 1986, M.B.A. 1991, St. Cloud State University

**Andrzejewski, Julie R. (1971)**

Professor of Human Relations and Multicultural Education

B.A. 1969, M.A. 1971, University of Washington; Ed.D. 1978, University of Northern Colorado

**Andzeng, Dick T. (1992)**

Associate Professor of Criminal Justice

B.A. 1979, Calvin College; M.D.A. 1984, M.A. 1985, Ph.D. 1991, Western Michigan University

**Argiros, Rita M. (1990)**

Associate Professor of Sociology and Anthropology

B.A. 1982, M.A. 1984, Ph.D. 1994, SUNY-Binghamton

**Arndts, Russell T. (1959-1963, 1968)**

Professor of Chemistry

B.S. 1957, Bemidji State University; M.S. 1960, North Dakota State University; Ph.D. 1969, Louisiana State University and Agricultural and Mechanical College

**Asquith, Jo Ann L. (1993)**

Associate Professor of Marketing and General Business, Interim Chairperson

B.A. 1978, St. Cloud State University; M.B.A. 1983, Ph.D. 1990, Claremont Graduate School

**Ayers, Floyd W. (1969)**

Professor of Special Education

B.A. 1955, Cornell University; M.A. 1956, Syracuse University; Ph.D. 1968, University of Minnesota-Twin Cities

**Bacharach, David W. (1989)**

Professor of Health, Physical Education, Recreation and Sport Science

B.S. 1979, University of Wisconsin-Eau Claire; M.A. 1983, University of Northern Iowa; Ph.D. 1986, Texas A &amp; M University

**Bacharach, Nancy L. (1989)**

Professor of Teacher Development

B.S. 1978, University of Wisconsin-Eau Claire; M.Ed. 1984, Ph.D. 1987, Texas A &amp; M University

**Bahauddin, Mohammed (1970)**

Professor of Mathematics

B.S.C. 1953, Osmania University; M.S.C. 1957, Karachi University; M.S. 1965, University of Minnesota-Twin Cities; Ph.D. 1969, New Mexico State University

**Bahde, John (1969)**

Professor of Philosophy; Chairperson

B.A. 1964, University of Colorado at Denver; M.A. 1967, Ph.D. 1989, Cornell University

**Bain, Anne Lee (1994)**

Assistant Professor of Accounting

B.A. 1966, Wilson College; M.A. 1970, University of Minnesota-Twin Cities

**Baker, Randal G. (1993)**

Assistant Professor of Geography

B.S. 1987, Brigham Young University; M.A. 1989, George Washington University; Ph.D. 1993, Oregon State University

**Banaian, King (1984)**

Associate Professor of Economics

A.B. 1979, Saint Anselm College; M.A. 1984, Ph.D. 1986, Claremont Graduate School

**Bashir, Abdelfatah (1996)**

Associate Professor of Computer Science

B.S. 1972, University of Khartoum (Sudan); M.S. 1979, Ph.D. 1988, University of Wisconsin-Milwaukee

**Bates, William B. (1972)**

Professor of Counseling and Related Services

B.S. 1963, Franciscan University of Steubenville; M.Ed. 1964, University of Virginia; Ph.D. 1974, Kent State University

**Bayne, Robert D. (1971)**

Professor, Director, Counseling and Student Health Services

B.S. 1963, M.A. 1967, Eastern Michigan University; Ph.D. 1971, Kent State University

**Beatty, Krista L. (1995)**

Resident Director/England Program, International Studies

B.A. 1990, University of Minnesota-Twin Cities; M.A. 1992, School for International Training

**Becker, Susan (1984)**

Compliance Coordinator, Records and Registration

B.A. 1982, University of Wisconsin-Eau Claire; M.S. 1984, Emporia State University; Ph.D. 1995, Oregon State University

**Bekkala, Andrew (1990)**

Professor of Manufacturing Engineering, Chairperson

B.S.M.E. 1974, M.S.M.E. 1976, Ph.D. 1990, Michigan Technological University

**Beltz, Margaret (1996)**

Assistant Director, Admissions Office

B.A. 1995, University of Alaska-Anchorage

**Beniek, Barbara A. (1995)**

Cadre Coordinator, Teacher Development

B.S. 1964, Mundelein College; M.A. 1972, University of San Francisco

**Bergstrom, Philip (1969)**

Professor of Environmental and Technological Studies

B.A. 1960, B.A.A.S. 1962, M.A. Ed. 1963, Central Washington University; Ed.D. 1969, Washington State University

**Berling, John G. (1975)**

Director of Technology Planning

B.S. 1957, St. Cloud State University; M.S.L.S. 1967, Wayne State University; Ph.D. 1975, University of Nebraska-Lincoln

**Bineham, Jeffery L. (1986)**

Professor of Speech Communication; Chairperson

B.A. 1980, George Fox College; M.A. 1983, Ph.D. 1986, Purdue University

**Bird, Lee E. (1992)**

Vice President for Student Life and Development

B.S. 1976, Ph.D. 1991, University of Arizona; M.S. 1977, University of Wisconsin-Superior

**Bischoff, Deborah A. (1997)**

Instructor in Biological Sciences

B.S. 1992, St. Cloud State University; M.A. 1977, Saint Mary's University

**Bixby, Robert O. (1980)**

Professor of Geography

B.A. 1973, M.A. 1975, Ph.D. 1985, University of Minnesota-Twin Cities

**Blaska, Joan K. (1984)**

Professor of Child and Family Studies

B.S. 1962, M.Ed. 1981, Ph.D. 1989, University of Minnesota-Twin Cities

**Bodelson, Patricia (1990)**

Associate Professor of Political Science

B.S.N. 1974, University of North Dakota; M.S. 1978, Texas Woman's University; Ph.D. 1988, University of Massachusetts at Amherst

**Bodvarsson, Orn B. (1988)**

Professor of Economics

B.S. 1979, M.S. 1981, Oregon State University; Ph.D. 1986, Simon Fraser University

**Boeckers, Gloria (1993)**

Higher Education Supervisor, Minnesota Correctional Facility-St. Cloud

B.A. 1991, M.S. 1993, St. Cloud State University

**Bohnen, Howard W. (1973)**

Assistant Professor of Finance, Insurance and Real Estate

B.A. 1970, University of Minnesota-Twin Cities; M.B.A. 1972, St. Cloud State University

**Borron, David R. (1992)**

Assistant Professor of Theatre and Film Studies

B.A. 1978, Buena Vista College; M.F.A. 1984, University of Southern Mississippi

**Bouchie, Gerald W. (1989)**

Field Experience Coordinator, Teacher Development

B.S. 1970, M.S. 1973, Bemidji State University; Ed.Sp. 1979, Mankato State University

**Bouffard, Edward L. (1990)**

Assistant Director-Operations, Atwood Center

B.S. 1975, Fordham University; M.A. 1977, Michigan State University

**Boyer, Agustin (1995)**

Assistant Professor of Foreign Languages and Literature

M.A. 1971, Universidad Complutense-Madrid (Spain); M.A. 1982, San Francisco State University; Ph.D. 1988, University of California-Berkeley

**Boyer, David L. (1976)**

Professor of Philosophy; Director, University Honors Program  
B.A. 1968, Yale University; M.A. 1970, Pacific Lutheran University;  
Ph.D. 1976, Boston University

**Bradley, Virginia M. (1993)**

Professor of Art; Chairperson  
B.F.A. 1980, University of Miami; M.F.A. 1983, University of South  
Florida

**Braith, Wayne A. (1980)**

Associate Professor of Mathematics  
B.S. 1977, M.S. 1985, St. Cloud State University

**Braje Wendy L. (1997)**

Assistant Professor of Psychology  
B.A. 1990, Hope College; Ph.D. 1997, University of Minnesota-Twin  
Cities

**Brennan, Nancy J. (1978)**

Associate Professor of Social Work  
B.A. 1965, M.S.W. 1967, Ph.D. 1976, University of Minnesota-Twin  
Cities

**Brink, Carol (1972)**

Professor of Health, Physical Education, Recreation and Sport Science  
B.S. 1961, M.A. 1965, Ph.D. 1987, University of Minnesota-Twin  
Cities

**Bristow, Dennis N. (1995)**

Assistant Professor of Marketing and General Business  
B.S. 1988, M.A. 1990, Mankato State University; Ph.D. 1995,  
Oklahoma State University

**Brundage, Richard T. (1993)**

Associate Professor of Physics, Astronomy and Engineering Science  
B.A. 1979, University of Dallas; Ph.D. 1985, University of Wisconsin-  
Madison

**Brundage, Shelley (1993)**

Assistant Professor of Communication Disorders  
B.S. 1984, University of Wisconsin-Madison; M.A. 1989, Ph.D. 1993,  
University of Minnesota-Twin Cities

**Bruno, Don Desales (1991)**

Associate Professor of Art  
B.F.A. 1969, Philadelphia College of Arts; M.F.A. 1974, Pennsylvania  
State University

**Bryce, E. Scott (1964)**

Professor of Mass Communications  
A.B. 1952, Oberlin College; M.A. 1963, Indiana University-  
Bloomington

**Bryce, Lynn (1981)**

Associate Professor of English  
B.A. 1976, M.A. 1981, St. Cloud State University

**Buhl, Anthony J. (1979)**

Associate Professor of Psychology  
B.S. 1963, M.S. 1967, St. Cloud State University; Ph.D. 1970,  
Oregon State University

**Buls, Gary D. (1984)**

Professor of Mathematics  
B.A. 1979, Luther College; M.S. 1981, Ph.D. 1986, Iowa State  
University of Science and Technology

**Buls, Shirley R. (1987)**

Professor of Mathematics  
B.S. 1978; M.S. 1982, Southern Oregon State College; Ph.D. 1987,  
Washington State University

**Buraglio, Carl (1988)**

Instructor; Highway Traffic Safety Center  
B.S. 1964, University of Minnesota-Duluth

**Burlison, Diana K. (1975)**

Assistant Vice President for Financial Management and Budget,  
Administrative Affairs  
B.A. 1989, St. Cloud State University

**Burmeister-May, Jodi (1993)**

Assistant Professor of Sociology and Anthropology  
B.A. 1983, Macalester College

**Buske, Dale R. (1997)**

Assistant Professor of Mathematics  
B.M. 1991, University of Minnesota-Twin Cities; Ph.D. 1997, Iowa  
State University of Science and Technology

**Busta, Bruce A. (1983-1985; 1988)**

Professor of Accounting  
B.S. 1979, M.B.A. 1983, St. Cloud State University; Ph.D. 1990,  
University of Nebraska-Lincoln

**Calhoun, Laurie L. (1997)**

Assistant Professor of Philosophy  
B.A. 1984, University Colorado; M.A. 1992, Princeton University

**Calhoun, Robert J. (1970)**

Professor of Marketing and General Business  
B.A. 1967, St. Cloud State University; J.D. 1970, University of  
Minnesota-Twin Cities

**Campbell, John H. (1997)**

Associate Professor of Criminal Justice  
B.A. 1966, College of St. Thomas; M.A. 1977, University of Detroit;  
Ph.D. 1992, Michigan State University

**Carlson, Debra L. (1988)**

Director, Child Care Center  
B.A. 1972, University of Minnesota-Morris; M.A. 1989, University of  
Minnesota-Twin Cities

**Carlson, Ronald E. (1973)**

Professor of Accounting  
B.S. 1964, Augustana College; M.B.A. 1966, Ph.D. 1973, University  
of Wisconsin-Madison

**Carr, Ralph W. (1977)**

Professor of Mathematics; Chairperson  
B.A. 1968, Carleton College; Ph.D. 1977, University of Wisconsin-  
Madison

**Carter, Elaine Fuller (1975)**

Professor of Foreign Languages and Literature  
B.S. 1958, Winona State University; M.A. 1961, University of  
Tennessee-Knoxville; Ph.D. 1988, University of Minnesota-Twin Cities

**Cheh, John J. (1991)**

Associate Professor of Accounting  
B.E. 1971, Hanyang University, Korea; M.B.A. 1979, University of  
Texas-Austin; M.A. 1986, Ph.D. 1986, University of Michigan-Ann  
Arbor

**Chisholm, Bradley (1993)**

Associate Professor of Theatre and Film Studies  
B.A. 1981, Moorhead State University; M.A. 1983, Ph.D. 1987,  
University of Wisconsin-Madison

**Christensen, Joseph M. (1985)**

Instructor; Highway Traffic Safety Center  
B.S. 1968, Mankato State University





Assistant Professor of Art

B.A. 1975, University of Minnesota-Twin Cities; M.F.A. 1995, Minneapolis College of Art and Design

Associate Professor of Finance, Insurance, Real Estate

B.A. 1970, Hamline University; M.B.A. 1976, Ph.D. 1990, University of Minnesota-Twin Cities

Associate Professor of Mathematics

B.S. 1969, M.S. 1974, St. Cloud State University

Professor of Biological Sciences

B.S. 1962, Murray State University; M.S. 1964, North Dakota State University; Ph.D. 1968, Texas A & M University-Galveston

**Instructor in Men's Athletics**

B.S. 1976, Bemidji State University; M.A. 1980, Western Michigan University

Assistant Professor of Criminal Justice

B.S. 1987, Oklahoma State University; M.S. 1989, Northeastern University; Ph.D. 1993, Arizona State University

Interim Associate Dean, College of Fine Arts and Humanities  
B.A. 1972, SUNY-Fredonia; Ph.D. 1983, Michigan State  
University

Associate Professor of Environmental and Technological Studies  
B.A. 1964, Northwestern University; M.A. 1980, Ph.D. 1984,  
The American University

Residence Hall Director

B.A. 1991, Bemidji State University

Professor of Health, Physical Education, Recreation and Sport Science

B.S. 1965, Tusculum College; M.S. 1967, University of Tennessee-Knoxville; Ed.D. 1972, Louisiana State University-Baton Rouge

Associate Professor of Foreign Languages and Literature

B.A. 1966, Brigham Young University; M.A. 1968, University of Minnesota-Twin Cities; Ph.D. 1992, University of Saarland

Professor, English

B.A. 1968, La Salle University; Ph.D. 1975, Indiana University-Bloomington

Residence Hall Director

B.S. 1992, College of Saint Benedict

Professor of Chemistry; Chairperson

B.S. 1954, M.S. 1956, Osmania University (India); Ph.D. 1961, Basel University (Switzerland)

Special Assistant, Administrative Affairs

B.F.A. 1962, Bradley University; M.S. 1974, Ed.S. 1982, University of Wisconsin-Stout; M.S. 1985, Bemidji State University

Instructor in Women's Athletics

B.A. 1995, Ohio Wesleyan University; M.S. 1995, Ohio University

Professor of Geography

B.S. 1964, St. Cloud State University; M.A. 1966, Ph.D. 1970, Michigan State University

Assistant Professor of Biological Sciences

B.A. 1969, Ph.D. 1976, University of California-Berkeley

Assistant Professor of Foreign Languages and Literature

B.A. 1989, M.A. 1990, University of Toulouse (France)

Associate Professor of Manufacturing Engineering

B.S. 1982, M.S. 1984, University of Wisconsin-Madison; Ph.D. 1993, University of Cincinnati

Professor of Biological Sciences

B.S. 1963, Iowa State University of Science and Technology; M.S. 1972, Ph.D. 1974, University of Nebraska-Lincoln

**Crow, Stephen M. (1986)**

Professor of English

B.A. 1971, Louisiana State University; M.A. 1973, Bowling Green State University; D.A. 1986, University of Michigan-Ann Arbor

**Curfman, Michael G. (1994)**

Instructor in Women's Athletics

B.A. 1992, Concordia College-Moorhead; M.B.A. 1994, Moorhead State University

**Curnutt, Jordan L. (1992)**

Assistant Professor of Philosophy

B.A. 1982, M.A. 1988, Ph.D. 1991, University of Arizona

**Czech, Kenneth P. (1985-1993, 1997)**

Instructor in History

B.S. 1973, M.A. 1984, St. Cloud State University

**Dahl, Craig A. (1986)**

Assistant Professor of Men's Athletics

B.A.E. 1976, Pacific Lutheran University

**Dahl, Orin (1997)**

Director of Development

B.A. 1960, California State University – Northridge

**Dahl, William A. (1984)**

University Physician, Health Services

B.S. 1965, M.D. 1969, University of Minnesota-Twin Cities

**Dalton, Bill J. (1983)**

Professor of Physics, Astronomy and Engineering Science

B.S. 1963, M.S. 1966, Ph.D. 1970, Florida State University

**Dathan, Brahma (1994)**

Assistant Professor of Computer Science

B.S. 1976, University of Kerala (India); M.S. 1979, Indian Institute of Technology-Madras (India); M.S. 1987, Ph.D. 1989, University of Pittsburgh

**Davis, Elaine (1985-1988; 1990)**

Professor of Management

B.S. 1977, Southwest State University; M.B.A. 1985, St. Cloud State University; Ph.D. 1992, University of Nebraska-Lincoln

**Davis, Leland E. (1966)**

Assistant Professor of Sociology and Anthropology

B.S. 1958, St. Cloud State University; M.A. 1962, New Mexico Highlands University

**Davis, Michael (1990)**

Associate Professor of Teacher Development

B.A. 1970, M.A. 1971, Eastern Michigan University; M.Ed. 1976, Ed.D. 1990, Columbia University in the City of New York

**Davison, Leslie J. (1988)**

Professor of Teacher Development

B.A. 1966, Saint Olaf College; M.A. 1977, Ph.D. 1987, University of Minnesota-Twin Cities

**Day, Donald R. (1997)**

Director, American Indian Center

B.A. 1977, Bemidji State University; M.Ed. 1990, University of Minnesota-Duluth

**DeGroote, David K. (1985)**

Professor of Biological Sciences; Chairperson

B.S. 1971, M.S. 1975, Ph.D. 1980, University of Iowa

**Dendinger, Richard D. (1965)**

Professor of Chemistry

B.S. 1958, Minot State University; M.S. 1966, North Dakota State University; Ph.D. 1974, South Dakota State University

**DeVoe, Marlene R. (1992)**

Associate Professor of Psychology

B.S. 1982, Grand Valley State University; M.A. 1988, Ph.D. 1990, Wayne State University

**Dienhart, John W. (1979)**

Professor of Philosophy

B.A. 1972, Roosevelt University; A.M. 1976, Ph.D. 1979, University of Illinois at Urbana-Champaign

**Dill, Tracy L. (1985)**

Assistant Professor of Men's Athletics

B.A. 1981, William Penn College; M.S. 1988, St. Cloud 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

**Ditlevson, Andrew P. (1990)**

Associate Director, Career Services

B.A. 1982, Saint Olaf College; M.A. 1988, Bowling Green State University

**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

**Dockendorff, Thomas P. (1966)**

Associate Professor of Geography; Chairperson

B.A. 1960, Saint Mary's College; M.A. 1965, Chicago State University

**Dorn, Judith A. (1993)**

Assistant Professor of English

B.A. 1985, Rutgers State University of New Jersey; M.A. 1987, Ph.D. 1992, Yale University

**Douma, Susan R. (1996)**

Senior/Sophomore Program Director and Elective Studies Director, Center for Continuing Studies

B.S. 1971, M.S. 1988, Mankato State University

**Downey, Jane M. (1984)**

Associate Professor of Manufacturing Engineering

B.S. 1982, M.S. 1984, Montana College of Mineral Science and Technology

**Eagle, Bruce W. (1993)**

Associate Professor of Management

B.A. 1977, North Central College; M.P.A. 1979, Drake University; M.B.A. 1983, Northern Illinois University; Ph.D. 1995, Georgia State University

**Earles, Gail A. (1969)**

Professor of Mathematics

B.S.Ed. 1961, M.S. 1963, Illinois State University; M.S. 1968, Rutgers State University of New Jersey

**Earles, Robert W. (1969)**

Professor of Mathematics

B.S. 1960, M.S. 1963, Illinois State University; M.S. 1968, Rutgers State University of New Jersey; Ed.D. 1969, University of Northern Colorado

**Echols, Charles L. (1972)**

Professor of Music

B.M. 1959, B.A. 1959, Belhaven College; M.M. 1961, University of Texas at Austin; D.M.A. 1969, University of Southern California

**Eckroth, Charles A. (1969)**

Professor of Physics, Astronomy and Engineering Science

B.A. 1956, Saint John's University; Ph.D. 1966, Iowa State University of Science and Technology

**Edwards, Mark (1996)**

Assistant Professor of Sociology and Anthropology

B.S. 1990, East Central University-Oklahoma; M.A. 1993, University of Oklahoma-Norman; Ph.D. 1997, South Dakota State University

**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

**Escalas-Caimary, Jaime (1968)**

Assistant Professor of Foreign Languages and Literature

B.A. 1950, College of La Salle, M.A. 1955, University of Barcelona; M.A. 1971, A.B.D. 1976, University of Minnesota-Twin Cities

**Ewing, M. Keith (1984)**

Professor of Learning Resources and Technology Services

A.B. 1972, Miami University Oxford Campus; M.A. 1975, University of Oregon; M.L.S. 1979, University of Texas at Austin

**Eyo, Bassey A. (1985)**

Professor of Speech Communication

B.S. 1978, M.A. 1980, University of Wisconsin-Stevens Point; Ph.D. 1985, University of Minnesota-Twin Cities

**Ezell, Wayland L. (1970)**

Professor of Biological Sciences

B.A. 1959, M.A. 1963, Fresno Pacific College; Ph.D. 1970, Oregon State University

**Farmer, William M. (1997)**

Assistant Professor of Statistics

B.A. 1978, University of Notre Dame; M.A. 1980, M.S. 1983, Ph.D. 1984, University of Wisconsin-Madison

**Fields, Anne (1978)**

Assistant Registrar

B.S. 1961, University of Wisconsin-Milwaukee

**Fields, Dennis C. (1971)**

Professor of Learning Resources and Technology Services

B.S. 1964, M.S.T. 1967, University of Wisconsin-Stevens Point; D.Ed. 1971, East Texas State University

**Fillenworth, Lucille I. (1977)**

Associate Professor of Counseling and Related Services

B.S. 1963, University of Minnesota-Duluth; M.S. 1978, St. Cloud State University; Ph.D. 1995, University of Minnesota-Twin Cities

**Fischer, Roland A. (1987)**

Director, International Studies

B.S. 1958, M.A. 1989, St. Cloud State University

**Fish, Marjorie J. (1987)**

Professor of Mass Communications

B.A. 1975, SUNY-Albany; M.A. 1980, California State University-Fresno; Ph.D. 1984, University of Texas at Austin

**Fisher, Theresia G. (1986)**

Associate Professor of Computer Science

B.S. 1981, Franklin University; M.S. 1985, North Dakota State University

**Fiske, Michael B. (1992)**

Associate Professor of Mathematics

A.B. 1970, University of California-Santa Cruz; M.A. 1974, School of Theology at Claremont; M.A. 1988, Ph.D. 1994, Ohio State University

**Foster, Judy Carroll (1979-1981, 1983)**

Professor of English

B.A. 1968, Lynchburg College; M.A. 1969, University of Virginia; Ph.D. 1983, University of Denver

**Frank, Elizabeth L. (1994)**

Assistant Professor of Chemistry

B.A. 1979, Colorado College; Ph.D. 1993, University of Colorado-Boulder

**Frank, Stephen (1978)**

Professor of Political Science

B.S.E. 1967, M.A. 1969, Central Michigan University; Ph.D. 1977, Washington State University

**Fredrickson, Richard S. (1995)**

Residence Hall Director

B.A. 1989, University of Minnesota-Morris

**Fuller, Stephen R. (1975)**

Professor of Music

B.A. 1965, Saint Olaf College; M.M. 1971, D.M.A. 1980, University of Southern California

- Gadberry, Eva M. (1975)**  
Professor of Special Education  
B.S. 1968, M.S. 1971, Ph.D. 1977, University of Wisconsin-Madison
- Gallagher, Daniel J. (1982)**  
Professor of Economics  
B.A. 1964, La Salle University; M.A. 1967, Ohio University; Ph.D. 1976, University of Maryland- College Park
- Gambill, Edward (1966)**  
Professor of History  
B.A. 1958, Saint Olaf College; M.S. 1960, University of Wisconsin-Madison; Ph.D. 1969, Iowa State University of Science and Technology
- Gammell, John R. (1977)**  
Associate Professor of Statistics; Chairperson of Aviation  
B.S. 1975, M.S. 1983, St. Cloud State University
- Gangopadhyay, Partha (1992)**  
Associate Professor of Finance, Insurance, Real Estate  
B.A. 1981, Jadavpur University (India); M.A. 1991, Ph.D. 1993, University of Iowa
- Gans, Lynda K. (1973-1975, 1986)**  
Associate Director for Student Health
- Garrity, Michael K. (1967)**  
Professor of Physics, Astronomy, and Engineering Science  
B.S. 1964, Saint John's University; M.S. 1965, Ph.D. 1968, Arizona State University
- Gasparino, Joann (1989)**  
Associate Professor of Counseling and Related Services  
B.A. 1973, M.A. 1975, Ball State University; Ph.D. 1986, University of Minnesota-Twin Cities
- Gasparotto, Gloria (1984)**  
Professor of Applied Psychology  
B.A. 1974, Illinois Wesleyan University; M.A. 1976, Ed.S. 1978, Western Michigan University; Ph.D. 1983, West Virginia University
- Gast, Kim G. (1987)**  
Associate Professor of Music  
B.M.E. 1981, M.A. 1983, University of Denver; D.A. 1994, University of Northern Colorado
- Gaumnitz, Bruce R. (1996)**  
Associate Professor of Accounting  
B.A. 1974, Macalester College; M.B.A. 1976, University of Minnesota-Twin Cities; M.S. 1978, Ph.D. 1982, University of Wisconsin-Madison
- Gembol, Jan (1985)**  
Professor of Counseling and Related Services  
B.A. 1972, University of Florida; M.S. 1974, Ph.D. 1981, Kansas State University
- George, Peter K. (1995)**  
Associate Professor of Electrical Engineering  
B.S. 1964, University of Michigan-Ann Arbor; M.S. 1966, Ph.D. 1969, Case Western Reserve University
- Gilchrist, Eugene A. (1992)**  
Vice President for Administrative Affairs  
B.A. 1972, SUNY-Plattsburg; Ed.D. 1989, SUNY-Albany
- Gill, Kathleen A. (1987)**  
Professor of Philosophy  
B.A. 1975, University of Wisconsin-Eau Claire; Ph.D. 1986, Indiana University-Bloomington
- Gilman, Cheri J. (1993)**  
Assistant Professor of Child and Family Studies  
B.A. 1968, Macalester College; M.A. 1969, Ohio State University; Ed.S. 1992, Ph.D. 1997, University of Minnesota-Twin Cities
- Givens, J. Hugh (1987)**  
Professor of Music  
A.B. 1977, Glenville State College; M.M. 1979, D.M.A. 1981, West Virginia University
- Glade, Mary E. (1997)**  
Assistant Professor of History  
B.A. 1982, M.A. 1986, Ph.D. 1996, University of Colorado-Boulder
- Gleisner, Richard F. (1968)**  
Professor of Economics  
B.A. 1964, Saint Mary's College; M.A. 1968, Ph.D. 1973, George Washington University
- Glowatzke, Dianne (1977)**  
Associate Professor of Women's Athletics  
B.S. 1968, Mankato State University; M.S. 1977, St. Cloud State University
- Goke, James B. (1972)**  
Associate Professor of Aviation  
B.S. 1969, M.S. 1970, Winona State University
- Gold-Biss, Michael (1992)**  
Associate Professor of Political Science  
B.A. 1984, Lafayette College; M.A. 1986, University of Delaware; Ph.D. 1992, The American University
- Gorcica, William (1996)**  
Assistant Professor of Art  
B.S. 1982, Virginia Polytechnic Institute and State University; M.A. 1990, Montclair State College; M.F.A. 1992, Rutgers the State University of New Jersey
- Gordon, Christie M. (1986)**  
Associate Professor of English  
B.S. 1971, Bemidji State University; M.S. 1986, St. Cloud State University; Ph.D. 1991, University of Minnesota-Twin Cities
- Gorrell, Donna (1987)**  
Professor of English  
B.A. 1972, M.A. 1974, D.A. 1980, Illinois State University
- Grachek, Arthur F. (1962)**  
Professor of Speech Communication  
B.S. 1962, M.S. 1964, St. Cloud State University; Ph.D. 1974, Wayne State University
- Grachek, Barbara A. (1971)**  
Associate Vice President for Academic Affairs  
B.S. 1962, M.S. 1963, St. Cloud State University; Ph.D. 1978, University of Minnesota-Twin Cities
- Green, Leslie R. (1991)**  
Director of Cultural Diversity, College of Education  
B.A. 1972, M.A. 1993, St. Cloud State University
- Greig, Alan M. (1968)**  
Transfer Coordinator, Admissions Office  
B.A. 1965, University of Minnesota-Morris; M.S. 1970, St. Cloud State University
- Grew, Alfred H. (1965)**  
Professor of Biological Sciences  
B.A. 1950, St. Cloud State University; M.A. 1954, University of Minnesota-Twin Cities; Ph.D. 1966, University of South Dakota

**Grimit, Steven R. (1993)**

Instructor in Men's Athletics

B.A. 1987, Western Illinois University

**Grimstad, Donald G. (1964)**

Assistant Professor of Teacher Development

B.S. 1955, Mankato State University; M.A. 1964, University of Minnesota-Twin Cities

**Grottel, Albert D. (1988)**

Professor of Foreign Languages and Literature

B.A. 1955, Leningrad University; B.A. 1959, Leningrad Music College; M.A. 1964, Ph.D. 1967, Leningrad Conservatory

**Grover, Larry L. (1976)**

Professor of Computer Science; Chairperson

B.S.E.E. 1963, M.S.E.E. 1969, Michigan Technological University; Ph.D. 1976, Michigan State University

**Grube, Bruce F. (1995)**

President and Professor of Political Science

A.B. 1964, University of California-Berkeley; M.A. 1967, California State University-Los Angeles; Ph.D. 1975, University of Texas-Austin

**Gundersen, Ralph (1964)**

Professor of Biological Sciences

B.S. 1959, Hamline University; M.S. 1962, Ph.D. 1967, University of Minnesota-Twin Cities

**Gust, John J. (1969)**

Associate Director, Scholarships and Financial Aid

B.A. 1969, St. Cloud State University

**Guster, Dennis C. (1988)**

Professor of Statistics

B.S. 1973, M.S. 1974, Bemidji State University; Ed.D. 1981, University of Missouri-Saint Louis

**Gutteter, Lee J. (1967)**

Professor of Art

B.S. 1958, M.S. 1967, University of Wisconsin-Milwaukee; Ed.D. 1972, Indiana University-Bloomington

**Gyllstrom, Mabeth S. (1968)**

Professor of Music

A.B. 1958, Augsburg College; M.Mus. 1960, Northwestern University; A. Mus.D. 1967, University of Michigan-Ann Arbor

**Habte, Amde-Michael (1977)**

Professor of Mass Communications

B.A. 1959, University College of Addis Ababa (Ethiopia); M.A. 1962, California State University-Los Angeles; Ph.D. 1976, University of Minnesota-Twin Cities

**Hakim, Semya M. (1997)**

Assistant Professor of Human Relations and Multicultural Education

B.A. 1990, M.A. 1993, Ph.D. 1997, Indiana University-Bloomington

**Haller, Susan K. (1990-94, 1997)**

Assistant Professor of Mathematics

B.S. 1984, Moorhead State University; M.S. 1990, St. Cloud State University; Ph.D. 1997, University of Minnesota-Twin Cities

**Hampton, Nathan E. (1987)**

Associate Professor of Economics

B.S. 1976, University of California-Riverside; M.S. 1982, Michigan State University; M.A. 1985, Ph.D. 1989, University of California-Santa Barbara

**Hanafy, Abdalla A. (1968)**

Professor of Marketing and General Business

B.S. 1952, Ein Shams University (Cairo); M.S. 1967, Ph.D. 1970, University of Illinois-Urbana Champaign

**Hanafy, Earleen Helgelien (1969)**

Professor of Health, Physical Education, Recreation and Sport Science

B.S. 1964, Northern State College; M.S. 1969, St. Cloud State University

**Haniff, Ghulam M. (1965)**

Professor of Political Science

B.A. 1957, M.A. 1960, University of Minnesota-Twin Cities; Ph.D. 1975, Case Western Reserve University

**Hann, John R. (1996)**

Medical Director, Health Services

B.A. 1972, Wartburg College; M.D. 1982, University of Minnesota-Twin Cities

**Hannah, Melissa M. (1996)**

Assistant Professor of Music

B.M. 1991, University of Wisconsin-Eau Claire; M.A. 1993, University of Minnesota-Twin Cities; D.M. 1996, Florida State University

**Hansen, Richard K. (1983)**

Associate Professor of Music

B.A. 1973, Sioux Falls College; M.A. 1976, University of Minnesota-Twin Cities

**Hansen, Theodore A. (1966)**

Associate Professor of English

B.A. 1957, Macalester College; M.A. 1961, Arizona State University

**Hanzsek-Brill, Melissa B. (1997)**

Assistant Professor of Mathematics

B.A. 1992, Providence College; M.A. 1995, Ph.D. 1997, University of Georgia

**Harlander, John M. (1991)**

Associate Professor of Physics, Astronomy and Engineering Science

B.A. 1982, University of Wisconsin-Eau Claire; M.S. 1986, Ph.D. 1991, University of Wisconsin-Madison

**Harles, Nancy D. (1995)**

Assistant Director, American Indian Center

B.S. 1986, Moorhead State University; M.S. 1988, North Dakota State University; Ph.D. 1995, University of North Dakota-Grand Forks

**Harper, Carmen W. (1963)**

Associate Professor of Geography

B.A. 1958, University of North Dakota; M.A. 1960, Southern Illinois University-Carbondale

**Hartz, Carolyn G. (1991)**

Associate Professor of Philosophy

B.A. 1980, Colgate University; M.A. 1982, Ph.D. 1985, University of North Carolina-Chapel Hill

**Hasslen, Robin C. (1987)**

Associate Professor of Child and Family Studies

B.A. 1967, Wilson College; M.S. 1987, St. Cloud State University; Ph.D. 1993, University of Minnesota-Twin Cities

**Haugen, Dyan (1991)**

Associate Professor of Management

B.S. 1981, John Carroll University; Ph.D. 1994, University of Minnesota-Twin Cities

**Hauptman, Robert (1984)**

Professor of Learning Resources and Technology Services

B.A. 1964, Wagner College; M.A. 1967, Ph.D. 1971, Ohio University; M.L.S. 1977, SUNY-Albany



**Hauslein, Patricia L. (1990)**

Associate Professor of Biological Sciences

B.A. 1976, Luther College; M.S. 1979, Iowa State University of Science and Technology; Ph.D. 1989, Louisiana State University and Agricultural and Mechanical College

**Havir, Linda (1972)**

Professor of Sociology and Anthropology; Chairperson

B.A. 1968, M.A. 1971, Ph.D. 1988, University of Minnesota-Twin Cities

**Hayman, Michael D. (1972)**

Director, Residential Life

B.S. 1972, M.S. 1976, St. Cloud State University

**Head, Lois M. (1968-1971, 1972-1974, 1977)**

Assistant Professor of English

B.A. 1968, Youngstown State University; M.A. 1972, St. Cloud State University; M.A. 1978, University of Minnesota-Twin Cities

**Heath, Richard D. (1973)**

Associate Professor of Business Computer Information Systems

B.S. 1960, M.S. 1967, Ph.D. 1973, University of Minnesota-Twin Cities

**Hebert, Henry (1981)**

Associate Professor of Statistics

B.S. 1963, University of Southwestern Louisiana; M.A. 1969, Louisiana State University and Agricultural and Mechanical College

**Heckendorn, Miles J. III. (1997)**

Director, University Public Safety

B.S. 1970, Florida State University  
M.B.A. 1983, Florida Institute of Technology**Hedin, Bonnie J. (1976)**

Associate Professor of Learning Resources and Technology Services

B.A. 1969, University of Minnesota-Twin Cities; M.S. 1972, University of Illinois at Urbana-Champaign; M.S. 1982, University of Wisconsin-Stout

**Heine, David A. (1987)**

Professor of Teacher Development

B.S. 1970, Mankato State University; M.A. 1978, Northern Arizona University; Ed.D. 1988, Indiana University-Bloomington

**Heine, Patricia J. (1987)**

Professor of Teacher Development

B.S. 1968, University of Minnesota-Twin Cities; M.A. 1978, Northern Arizona University; Ed.D. 1990, Indiana University-Bloomington

**Heinrich, Lisa L. (1993)**

Assistant Professor of Mass Communications

B.A. 1971, M.A. 1973, Ph.D. 1977, Vanderbilt University

**Hellwig, David (1966)**

Professor of History

B.A. 1959, University of New Mexico; M.S. 1961, University of Wisconsin-Madison; Ph.D. 1973, Syracuse University

**Hemmer, Joan D. (1976)**

Professor of Psychology

B.A. 1954, University of Minnesota-Twin Cities; M.A. 1967, Ph.D. 1972, University of Colorado-Boulder

**Heneghan, J. Michael (1986)**

Professor of Electrical Engineering

B.S. 1966, Ph.D. 1972, University of Washington; M.S. 1968, Seattle University

**Henning, Christine L. (1997)**

Residence Hall Director

B.S. 1992, St. Cloud State University

**Hess, Jeffrey (1991)**

National Hockey Center Event/Program Coordinator

B.S. 1991, St. Cloud State University

**Heydt, Diane (1988-1996, 1997)**

Assistant Professor of Women's Athletics

B.S. 1985, M.S. 1986, Western Illinois University

**Hibbard, Jack H. (1978)**

Associate Professor of English

B.A. 1969, South Dakota State University; M.A. 1973, Miami University Oxford Campus; Ph.D. 1979, Purdue University

**Hill, Fred E. (1977)**

Professor of Learning Resources and Technology Services

B.S. 1973, M.Ed. 1974, Utah State University; Ed.D. 1977, Indiana University-Bloomington

**Hill, Richard (1980)**

Professor of Mass Communications; Chairperson

B.S. 1961, M.S. 1969, St. Cloud State University

**Hintz, Jan L. (1990)**

Associate Professor of Teacher Development; Chairperson

B.A. 1977, Cardinal Stritch College; M.S. 1983, Ph.D. 1990, University of Wisconsin-Milwaukee

**Hites, Jeanne M. (1991)**

Associate Professor of Learning Resources and Technology Services

B.F.A. 1976, M.F.A. 1982, Ed.D. 1990, Northern Illinois University

**Hoff, Jean L. (1994)**

Assistant Professor of Earth Sciences

B.A. 1978, Carleton College; M.S. 1982, Duke University; Ph.D. 1989, University of North Dakota

**Hofmann, Suellyn (1977-1978, 1987)**

Associate Professor of Human Relations and Multicultural Education; Chairperson

B.A. 1975, St. Cloud State University; M.S. 1979, University of Wisconsin-Madison; Ph.D. 1988, Florida State University

**Hofsommer, Don L. (1989)**

Professor of History, Interim Chairperson

B.A. 1960, M.A. 1966, University of Northern Iowa; Ph.D. 1973, Oklahoma State University

**Holder, Lin (1989)**

Associate Vice President for Academic Affairs

B.A. 1971, University of Iowa; M.S. 1985, University of Nebraska-Omaha; Ph.D. 1989, University of Kansas

**Hollman, Christine Taylor (1995)**

Assistant Professor of Finance, Insurance and Real Estate

B.S. 1990, West Virginia University; Ph.D. 1995, Florida State University

**Hoover, Steven M. (1989)**

Professor of Applied Psychology

B.S. 1976, Indiana University-Bloomington; M.S. 1985, Ph.D. 1988, Purdue University

**Hornstein, Stephen (1987)**

Professor of Teacher Development

B.S.Ed. 1975, M.Ed. 1980, Ph.D. 1986, University of North Dakota

**Hortis, Theophanis C. (1975)**

Professor of Health, Physical Education, Recreation and Sport Science

B.A. 1960, Macalester College; M.P.H. 1971, Ph.D. 1978, University of Minnesota-Twin Cities

**Hotz, John C. (1983)**

Professor of Applied Psychology

B.S. 1970, Saint John's University; M.S. 1974, St. Cloud State University; Rh.D. 1982, Southern Illinois University at Carbondale

**Houdek, Jeffrey S. (1987)**

Assistant Registrar

B.B.A. 1983, M.A. 1985, University of North Dakota

**Huang, Danrun (1997)**

Assistant Professor of Mathematics

B.S. 1982, M.S. 1984, East China Normal University; Ph.D. 1992, University of Maryland-College Park

**Hubbard, Miles (1980)**

Assistant Professor of Mathematics

B.S. 1980, M.S. 1986, St. Cloud State University

**Hughes, Patricia A. (1988)**

Associate Professor of Economics

B.A. 1979, M.A. 1984, Ph.D. 1991, University of California-Santa Barbara

**Hullsiek, Katherine Huppler (1985)**

Assistant Professor of Mathematics

B.S. 1985, M.S. 1989, St. Cloud State University

**Hutchins, Shawna L. (1996)**

Associate Athletic Director and Senior Women's Administrator

B.S. 1989, University of Northern Iowa; M.S. 1991, Western Illinois University

**Hyde, R. Bruce (1990)**

Associate Professor of Speech Communication

B.S. 1963, Northwestern University; M.S. 1985, University of North Texas; Ph.D. 1991, University of Southern California

**Inkster, Christine D. (1989)**

Associate Professor of Learning Resources and Technology Services

B.A. 1965, M.A. 1975, University of Wyoming; M.L.S. 1979, University of Pittsburgh

**Inkster, Robert P. (1989)**

Professor of English; Chairperson

B.A. 1965, M.A. 1970, Ph.D. 1987, University of Wyoming

**Isberner, Bradley J. (1986)**

Associate Professor; Highway Traffic Safety Center

B.S. 1977, M.S. 1979, St. Cloud State University

**Jackson, Tommie Lee (1986)**

Professor of English

B.A. 1972, Paine College; M.A. 1973, Ph.D. 1985, University of Nebraska-Lincoln

**Japp, Debra K. (1989)**

Associate Professor of Speech Communication

B.A. 1979, M.A. 1986, Ph.D. 1989, University of Nebraska-Lincoln

**Jarvis, Shawn C. (1988)**

Professor of Foreign Languages and Literature

B.A. 1977, M.A. 1980, Ph.D. 1990, University of Minnesota-Twin Cities

**Jazwinski, Christine H. (1978)**

Professor of Psychology

M.S. 1973, Warsaw University; Ph.D. 1977, Purdue University

**Jensen, Harlan J. (1970)**

Associate Professor of Learning Resources and Technology Services

B.S. 1965, M.S. 1970, Ed.S. 1977, St. Cloud State University

**Jensen, Marilyn A. (1981)**

Professor of Applied Psychology

B.A. 1971, Ph.D. 1977, University of Minnesota-Twin Cities

**Jensen-Cekalla, Susan K. (1995)**

Director, Grants Development and Administration, Sponsored Programs

B.A. 1967, Augustana College; M.A. 1969, Colorado State University

**Jensen-Regnier, Dawn (1988)**

Director, Small Business Development Center

B.S. 1987, M.S. 1988, St. Cloud State University

**Jerde, David A. (1969)**

Professor of Physics, Astronomy and Engineering Science; Chairperson

B.S. 1955, St. Cloud State University; M.A. 1958, University of Minnesota-Twin Cities; A.B.D. 1968, University of Washington

**Jodarski, Brad W. (1995)**

Coordinator of Athletics Operations and Finance

B.S. 1993, M.B.A. 1995, St. Cloud State University

**Johnson, Alison J. (1994)**

Assistant Professor of Chemistry

B.S. 1987, M.S. 1989, University of North Dakota; Ph.D. 1993, University of Wisconsin-Madison

**Johnson, Carla A. H. (1987)**

Associate Professor of Philosophy

B.A. 1977, Bethel College; Ph.D. 1988, University of Minnesota-Twin Cities

**Johnson, James C. (1976)**

Professor of Marketing and General Business

B.S.B.A. 1966, M.A. 1967, University of Arizona; Ph.D. 1970, University of Minnesota-Twin Cities

**Johnson, James W. (1967)**

Professor of Statistics

B.S. 1963, St. Cloud State University; M.A. 1967, Louisiana State University; Ph.D. 1973, University of Northern Colorado

**Johnson, Monte J. (1967)**

Associate Professor of Statistics

B.S. 1961, Black Hills State College; M.A. 1966, University of South Dakota; Ph.D. 1993, Nova University

**Johnson, Richard A. (1976)**

Professor of Special Education

B.S. 1958, Moorhead State University; M.A. 1965, Ed.D. 1971, University of Minnesota-Twin Cities

**Johnson, Robert C. (1985)**

Professor; Director of Minority Studies

B.A. 1967, Lincoln University; M.A.T. 1970, M.A. 1974, Ph.D. 1976, B.S. 1984, Washington University

**Johnson, Robert W. (1974)**

Professor of Computer Science

A.B. 1962, Columbia University in the City of New York; M.S. 1965, CUNY-City College; Ph.D. 1969, CUNY-Graduate School and Community Center

**Johnson, Sandra G. (1978)**

Associate Professor of Mathematics

B.A. 1964, M.Ed. 1970, University of North Dakota

**Johnson, Scott W. (1987)**

Associate Professor of Accounting

B.A. 1973, North Dakota State University; J.D. 1976, University of North Dakota; L.L.M. 1982, Boston University

**Jones, Evan M. (1968)**

Professor of Political Science

B.A. 1960, Hamline University; M.A. 1969, University of North Dakota; Ph.D. 1976, University of Nebraska-Lincoln

**Josephson, Richard (1977)**

Professor of Learning Resources and Technology Services

B.A. 1973, Southwest State University; M.S. 1973, Murray State University; M.S. 1986, University of Wisconsin-Stout

**Judish, Marion J. (1988)**

Assistant Professor of Music

B.M. 1976, University of Colorado-Boulder; M.M. 1990, D.M.A. 1995, University of Minnesota-Twin Cities

**Julstrom, Bryant A. (1989)**

Professor of Computer Science

B.A. 1972, Augustana College; M.S. 1973, M.S. 1982, Ph.D. 1987, University of Iowa

**Jurgens, Jane C. (1993)**

Assistant Professor of Learning Resources and Technology Services

B.A. 1970, University of Minnesota-Twin Cities; M.A. 1983, Loyola University of Chicago; M.A. 1985, Rosary College

**Justin, Sandra P. (1989)**

Program Manager, Economic Development Center

B.S. 1978, University of Wisconsin-Stout; M.A. 1983, Mankato State University

**Kakuk, Shawn A. (1991)**

Coordinator for Athletes for Success in the Classroom, Minority Student Programs

B.S. 1988, M.S. 1991, St. Cloud State University

**Kalia, Ravindra Nath (1985)**

Professor of Mathematics

B.S.C. 1959, M.S.C. 1962, M.S.C. 1963, Ph.D. 1972, Lucknow University (India)

**Kalia, Sneh (1985)**

Associate Professor of Physics, Astronomy and Engineering Science

B.S.C. 1970, M.S.C. 1972, Delhi University (India); Ph.D. 1984, Lucknow University (India)

**Kane, Joanne (1986)**

Coordinator, ADAPT: Alcohol/Drug Assessment and Prevention Team, Health Services

B.A. 1977, Edinboro University of Pennsylvania; M.S. 1981, St. Cloud State University

**Kanengieter-Wildeson, Marla (1991)**

Associate Professor of Speech Communication

B.A. 1982, Colorado State University; M.S. 1987, Ph.D. 1990, University of Oregon

**Kang, Eungmin (1990)**

Associate Professor of Economics

B.A. 1980, Sung Kyun Kwan University (Korea); Ph.D. 1990, Georgia State University

**Karasik, Rona J. (1993)**

Assistant Professor, Center for Community Studies

B.A. 1986, M.A. 1989, University of Connecticut; Ph.D. 1993, University of Delaware

**Karian, Michael (1992)**

Associate Professor of Environmental and Technological Studies

B.A. 1983, M.A. 1985, California State University-Long Beach; Ed.D. 1991, Arizona State University

**Kassing, Jeffrey W. (1997)**

Assistant Professor of Speech Communication

B.A. 1989, William Jewell College; M.A. 1994, Murray State University; Ph.D. 1997, Kent State University

**Kattke, Warren J. (1997)**

Instructor in Business Computer Information Systems

B.A. 1996, Augustana College; M.S. 1970, Rensselaer Polytechnic Institute; M.B.A. 1972, University of South Dakota

**Kazemek, Francis E. (1994)**

Associate Professor of Teacher Development

B.A. 1969, University of Illinois at Chicago; M.A. 1972, University of New Mexico; M.S. 1975, Ph.D. 1983, Southern Illinois University at Carbondale

**Keable, Doreen (1974)**

Professor of Learning Resources and Technology Services

B.S. 1965, M.S. 1972, St. Cloud State University; Ed.D. 1990, University of North Dakota

**Keith, Philip M. (1977)**

Professor of English

A.B. 1964, Amherst College; M.A. 1968, Bryn Mawr College; Ph.D. 1971, University of Pennsylvania

**Keith, Sandra Zarodny (1982)**

Professor of Mathematics

A.B. 1966, Brown University; M.A. 1971, Ph.D. 1971, University of Pennsylvania

**Kellerman, Debra K. (1983)**

Professor of Marketing and General Business

B.S. 1972, M.S. 1975, Bemidji State University; Ph.D. 1981, University of Iowa

**Kellett, Joan M. (1978)**

Professor of Special Education; Chairperson

B.S. 1963, M.A. 1967, University of Minnesota-Twin Cities; Ph.D. 1979, University of Illinois at Urbana-Champaign

**Kellogg, Polly (1986)**

Assistant Professor of Human Relations and Multicultural Education  
B.A. 1965, Carleton College; M.A. 1974, Columbia University  
Teachers College; Ph.D. 1997, University of Minnesota

**Kelly, James M. (1987)**

Dean, College of Business  
B.S.C. 1954, University of Iowa; M.A. 1959, Michigan State University; D.B.A. 1967, University of Colorado-Boulder

**Kelly, Kathryn K. (1991)**

Special Assistant to the Vice President for Academic Affairs;  
Coordinator, General Studies Program/Orientation 150  
B.S. 1969, M.S. 1991, St. Cloud State University

**Kelsey, Kenneth W. (1970)**

Professor of Teacher Development  
B.S. 1962, Mankato State University; M.A. 1966, Ph.D. 1974, University of Minnesota-Twin Cities

**Kendig, Daun G. (1982)**

Professor of Speech Communication  
B.S. 1974, Ohio University; M.A. 1976, Ph.D. 1987, University of Illinois-Urbana Champaign

**Kilborn, Judith M. (1985)**

Professor of English  
B.A. 1974, Millikin University; M.A. 1976, Ph.D. 1985, Purdue University

**Kilkelly, John C. (1966)**

Associate Professor of Political Science  
B.A. 1961, St. Cloud State University; M.S.S. 1962, D.A. 1979, University of Mississippi

**Klepetar, Steven F. (1983)**

Professor of English  
B.A. 1971, M.A. 1973, SUNY-Binghamton; Ph.D. 1977, University of Chicago

**Knutson, Keith M. (1966-1967, 1970)**

Professor of Biological Sciences  
B.S. 1965, M.A. 1967, St. Cloud State University; Ph.D. 1970, North Dakota State University

**Kochmann, Beverly J. (1992)**

Associate Professor of Teacher Development  
B.A. 1979, M.S. 1981, University of Wyoming; Ed.D. 1992, University of Northern Colorado

**Kramer, David C. (1971)**

Professor of Biological Sciences  
B.S. 1965, Indiana University-Bloomington; M.S. 1968, Ed.D. 1971, Ball State University

**Krueger, David D. (1969)**

Professor of Business Computer Information Systems  
B.S. 1965, University of Wisconsin-Oshkosh; M.S. 1967, Ph.D. 1969, Kansas State University

**Krueger, Patricia A. (1985)**

Associate Director, Admissions  
B.A. 1966, University of Iowa; M.A. 1984, St. Cloud State University

**Krystosek, Amy (1990)**

Teacher, Child Care Center  
B.S. 1989, St. Cloud State University

**Kuchinski, Marina (1995)**

Assistant Professor of Art  
B.F.A. 1992, Bezalel Academy of Art-Jerusalem; M.F.A. 1995, Pennsylvania State University

**Kukuk, William D. (1968)**

Associate Professor of Psychology  
B.S. 1958, Carroll College; M.A. 1960, Michigan State University; Ph.D. 1967, Brigham Young University

**Kurtz, Janell M. (1986)**

Professor of Marketing and General Business  
B.S. 1978, Pennsylvania State University; J.D. 1983, M.B.A. 1983, Memphis State University

**Kurtz, Morris (1984)**

Director of Intercollegiate Athletics  
B.A. 1973, York University (Canada); M.S. 1975, Ph.D. 1981, Pennsylvania State University

**Lacroix, Phyllis M. (1976-1977, 1978)**

Professor of Learning Resources and Technology Services  
B.S. 1963, M.S. 1976, St. Cloud State University; Ph.D. 1987, University of Minnesota-Twin Cities

**Lacroix, William J. (1966)**

Professor of Environmental and Technological Studies  
B.S. 1963, M.S. 1967, St. Cloud State University; Ph.D. 1971, Iowa State University of Science and Technology

**LaDue, Lee E. (1990)**

Coordinator of Sexual Assault Services, Women's Center  
B.S. 1984, M.S. 1991, St. Cloud State University

**Lahren, David R. (1966)**

Professor of Mathematics  
B.A. 1958, Concordia College-Moorhead; B.D. 1963, Luther Seminary; M.S. 1966, North Dakota State University; D.A. 1971, University of Northern Colorado

**Lane, Richard B. (1968)**

Associate Professor of Sociology and Anthropology  
B.A. 1963, University of New Mexico; M.A. 1967, University of California-Santa Barbara

**Lane, Virginia K. (1981)**

Assistant Professor of Criminal Justice  
B.A. 1970, M.A. 1982, St. Cloud State University; A.B.D. 1986, University of Minnesota-Twin Cities

**Lang, Lucy A. (1995)**

Preschool Teacher, Campus Child Care  
B.A. 1975, College of Saint Benedict; M.S. 1989, St. Cloud State University

**Langen, William G. (1969)**

Professor of Foreign Languages and Literature; Chairperson  
B.A. 1965, Ph.D. 1976, University of Arizona

**Larkin, L. Andrew (1982)**

Professor of Economics  
B.S. 1967, Creighton University; M.A. 1969, University of Notre Dame; M.A. 1980, Ph.D. 1982, University of Nebraska-Lincoln

**Lavallee, Richard J. (1997)**

Assistant Professor of Chemistry  
B.A. 1993, Rhode Island College; Ph.D. 1997, University of Georgia

**Lavenda, Robert H. (1979)**

Professor of Sociology and Anthropology  
A.B. 1971, Dartmouth College; M.A. 1974, Ph.D. 1977, Indiana University-Bloomington

**LaVoi, Gerald W. (1979)**

Professor of Communication Disorders; Chairperson  
B.S. 1963, University of Minnesota-Twin Cities; M.S. 1969, University of North Dakota; Ph.D. 1984, University of Missouri-Columbia

**Lawal, Hameed Bayo (1992)**

Professor of Statistics; Chairperson

B.Sc. 1972, Ahmadu Bello University (Nigeria); M.Sc. 1974, University of Reading (England); Ph.D. 1981, University of Essex (England)

**Lawrence, Richard (1988)**

Professor of Criminal Justice

B.A. 1966, Bethel College; M.A. 1972, Saint Mary's University of San Antonio; Ph.D. 1978, Sam Houston State University

**Layne, R. Dennis (1972)**

Professor of Music

B.S. 1961, Utah State University; M.M. 1964, University of Redlands; Ph.D. 1974, University of Southern California

**Leach, Elaine L. (1987)**

Professor of Educational Administration and Leadership

B.S. 1956, Mankato State University; M.A. 1962, Ph.D. 1979, Ohio State University

**Lee, Dae C. (1974)**

Associate Professor of Learning Resources and Technology Services

B.A. 1962, Keimyung Christian College (Korea); M.A. 1964, Korea University; M.L.S. 1972, SUNY-Geneseo

**Lee, Melinda J. C. (1990)**

Assistant Professor of Chemistry

B.A. 1984, Augsburg College; Ph.D. 1990, University of Minnesota-Twin Cities

**Leenay, Tamara (1991)**

Associate Professor of Chemistry

B.S. 1982, Le Moyne College; Ph.D. 1988, University of Pennsylvania

**Leigh, Debra L. (1989)**

Associate Professor of Health, Physical Education, Recreation, and Sport Science

B.A. 1982, University of Missouri-Kansas City; M.F.A. 1988, University of Illinois at Urbana-Champaign

**Lekhukul, Sura (1985)**

Professor of Electrical Engineering

B.S. 1969, Chulalongkorn University (Thailand); M.S. 1979, University of Louisville; Ph.D. 1985, University of Kentucky

**Lere, John C. (1983)**

Professor of Accounting

B.S. 1967, University of Illinois at Urbana-Champaign; M.P.A. 1969, University of Texas at Austin; Ph.D. 1976, University of Wisconsin-Madison

**Lesar, David J. (1967)**

Professor of Applied Psychology

B.S. 1960, M.S. 1962, St. Cloud State University; Ed.D. 1967, Indiana State University

**Lesikar, Arnold V. (1966)**

Professor of Physics, Astronomy and Engineering Science

B.A. 1958, Rice University; Ph.D. 1965, California Institute of Technology

**Leung, Leo K. (1968)**

Professor of Mathematics

M.S. 1965, University of Illinois at Urbana-Champaign; D.A. 1977, Idaho State University

**Levilain, Guy (1967)**

Professor of Foreign Languages and Literature

B.A. 1956, University of Bordeaux (France); M.A. 1961, E.S.C. Bordeaux (France); D.Ed. 1982, University of Northern Colorado

**Lewis, James F. (1969)**

Professor of Special Education

B.S. 1964, M.Ed. 1967, Ed.D. 1969, University of Nebraska-Lincoln

**Lewis, Richard D. (1976)**

Interim Dean, College of Social Sciences

B.A. 1959, M.A. 1961, University of Kansas; Ph.D. 1971, University of California-Berkeley

**Lewis, Standley E. (1968)**

Professor of Biological Sciences

B.A. 1962, M.A. 1964, University of Nebraska at Omaha; Ph.D. 1968, Washington State University

**Line, Jeffery C. (1996)**

Assistant Professor of Computer Science

B.S. 1977, M.S. 1982, Indiana State University; Ph.D. 1995, University of Iowa

**Lipetzky, Patricia W. (1994)**

Associate Dean; Center for Continuing Studies

B.S. 1978, College of Saint Francis; M.S. 1985, Ph.D. 1990, University of Minnesota-Twin Cities

**Litterst, Judith K. (1980)**

Professor of Speech Communication

B.A. 1969, Central Michigan University; M.A. 1971, Bradley University; Ph.D. 1983, University of Minnesota-Twin Cities

**Lockway, Larry A. (1989)**

Assistant Professor of Learning Resources and Technology Services

B.A. 1974, M.A. 1979, University of Minnesota-Twin Cities; M.L.S. 1988, University of Maryland-College Park

**Lofgreen, Harold A. (1972)**

Professor of Economics; Director, Social Science Research Institute

B.A. 1965, Simpson College; M.A. 1967, Ph.D. 1972, University of Iowa

**Lois-Borzi, Ana I. (1996)**

Assistant Professor of Art

B.F.A. 1992, University of Kansas; M.A. 1994, Purdue University; M.F.A. 1996, University of Minnesota-Twin Cities

**Loncorich, Franklin E. (1976)**

Director of Scholarships and Financial Aids

B.A. 1965, M.A. 1966, Mankato State University

**Lorsung, Dennis K. (1977)**

Assistant Professor of Men's Athletics

B.A. 1971, St. Cloud State University

**Louisell, Robert (1989)**

Associate Professor of Teacher Development

B.A. 1970, Saint John's University; M.Ed. 1973, Virginia Commonwealth University; Ed.D. 1979, University of Illinois at Urbana-Champaign

**Lu, Debra H. (1973)**

Professor of Accounting

B.S. 1963, Cheng Kung University (China); M.S. 1967, Ph.D. 1973, University of Minnesota-Twin Cities

**Lu, Ming-Te (1970)**

Professor of Business Computer Information Systems

B.S. 1960, Cheng Kung University (China); M.S. 1967, Ph.D. 1971, University of Minnesota-Twin Cities

**Ludwig, Steven L. (1987)**

Assistant Vice President for Facilities Management

B.A. 1974, Iowa State University of Science and Technology; M.B.A. 1989, St. Cloud State University



**Luksetich, William A. (1972)**

Professor of Economics; Chairperson  
B.S. 1962, M.A. 1970, De Paul University; Ph.D. 1973, Northern Illinois University

**Lundquist, James C. (1967)**

Professor of English  
B.A. 1964, Westminster College; Ph.D. 1967, University of Florida

**MacDonald, Richard A. (1989)**

Assistant Professor of Economics  
B.S. 1983, Alfred University; Ph.D. 1992, SUNY-Binghamton

**Madsen, Barbara (1997)**

Assistant Professor of Art  
B.F.A. 1985, Brigham Young University; M.F.A. 1988, Drake University

**Maloney, Kathleen (1974)**

Professor of Criminal Justice  
A.B. 1966, M.A. 1970, Ph.D. 1974, University of Alabama

**Mansfield, Kathy K. (1993-1994; 1995)**

Admissions/Financial Aid Counselor  
B.A. 1994, St. Cloud State University

**Marcattilio, Anthony J. (1980)**

Professor of Applied Psychology  
B.A. 1973, Butler University; M.S. 1975, Ph.D. 1978, Colorado State University

**Markell, Marc A. (1991)**

Professor of Special Education  
B.A. 1980, College of Saint Thomas; M.S. 1987, Mankato State University; Ph.D. 1991, University of Minnesota-Twin Cities

**Marrer, Kerry E. (1995)**

Assistant Professor of Accounting  
B.A. 1976, Saint Norbert College; M.B.A. 1978, University of Chicago

**Martin, Noel (1983)**

Associate Professor of Men's Athletics  
B.S. 1963, University of Nebraska-Lincoln; M.S. 1968, Central Missouri State University

**Mason, John E. (1971)**

Professor of Applied Psychology  
B.S. 1967, M.A. 1968, Eastern Michigan University; Ph.D. 1971, Kent State University

**Mattick, Douglas M. (1977)**

Associate Professor of Environmental and Technological Studies  
B.C.E. 1970, University of Minnesota-Twin Cities; M.S.I.A. 1971, Purdue University

**Mattson, Patrick R. (1987)**

Associate Professor of Aviation  
B.S. 1985, Park College; M.S.A. 1987, Central Michigan University

**Mayala, Jacob (1978)**

Professor of Child and Family Studies  
B.A. 1961, Augsburg College; M.A.T. 1972, Oakland University; Ph.D. 1978, University of Illinois at Urbana-Champaign

**McDonnell, Robert K. (1995)**

Assistant Professor of Mass Communications  
B.A. 1974, M.A. 1984, Ph.D. 1995, Ohio University

**McGrew, Kevin S. (1979)**

Professor of Applied Psychology  
B.A. 1974, M.S.Ed. 1975, Moorhead State University; Ph.D. 1989, University of Minnesota-Twin Cities

**McGuire, Denise M. (1986)**

Professor of Biological Sciences  
B.A. 1975, College of Saint Catherine; Ph.D. 1980, University of Minnesota-Twin Cities

**McKay, Joane W. (1997)**

Dean, College of Education  
B.A. 1961, Augustana College; M.S. 1987, Ph.D. 1990, Iowa State University of Science and Technology

**McKenna, Jack F. (1982)**

Professor of Chemistry  
B.S. 1977, Ph.D. 1982, Clemson University

**McLaughlin, John M. (1987)**

Associate Professor of Educational Administration and Leadership  
B.A. 1974, Vanderbilt University; M.A. 1976, University of Chicago; Ph.D. 1988, University of Minnesota-Twin Cities

**McLean, Samuel J. (1966)**

Assistant Professor of Accounting  
B.S.B.A. 1963, M.S. 1966, University of North Dakota

**McMullen, James C. (1969)**

Professor of Chemistry  
B.S. 1965, University of Wisconsin-Superior; Ph.D. 1969, University of South Dakota

**McMullen, Jo L. (1992)**

KVSC-FM Station Manager  
B.S. 1991, St. Cloud State University

**McMullen, Judee G. (1992)**

Associate Professor of Educational Administration and Leadership  
B.S. 1973, M.S. 1979, University of Wisconsin-River Falls; Ph.D. 1994, University of Minnesota-Twin Cities

**Medler, Meredith A. (1968)**

Associate Professor of History  
B.A. 1962, University of Wisconsin-Madison; M.A. 1965, Iowa State University of Science and Technology; D.A. 1986, University of North Dakota

**Mehdi, Abbas (1988)**

Professor of Sociology and Anthropology  
B.A. 1974, Bagdad University (Iraq); M.A. 1982, Bath University (England); Ph.D. 1987, Ohio State University

**Mehrhoff, W. Arthur (1988)**

Professor, Center for Community Studies  
B.S. 1971, Concordia Teachers College; M.A. 1976, Washington University; Ph.D. 1986, Saint Louis University

**Meierhofer, Joseph (1989)**

Director of Operations, National Hockey Center  
B.S. 1986, St. Cloud State University

**Meissner, William J. (1972)**

Professor of English  
B.S. 1970, University of Wisconsin-Stevens Point; M.E.A. 1972, University of Massachusetts-Amherst

**Merchant, Niloufer M. (1991)**

Associate Professor of Applied Psychology  
B.A. 1979, M.A. 1981, University of Pune (India); M.S. 1985, University of Wisconsin-Whitewater; Ed.D. 1991, University of Cincinnati

**Mertens, Gerald C. (1965)**

Assistant Professor of Psychology  
B.S. 1958, University of Wisconsin-River Falls; M.A. 1961, University of Mississippi

**Metcalf, Lynn (1967-1969, 1979)**

Assistant Professor of Art  
B.A. 1963, Carleton College; M.A. 1966, University of Minnesota-Twin Cities

**Meyer, Roger G. (1966)**

Assistant Professor of Statistics  
B.S. 1960, M.S. 1962, University of North Dakota

**Meyer, Ruth K. (1978)**

Professor of Business Computer Information Systems; Chairperson  
B.A. 1965, Ph.D. 1989, University of Minnesota-Twin Cities; B.S. 1973, M.B.A. 1981, St. Cloud State University

**Meyerring, Joseph E. (1996)**

Instructor, Highway Traffic Safety Center  
B.S. 1965, Chadron State College; M.S. 1969, Central Missouri State University

**Miles, Bruce H. (1994)**

Assistant Professor of Educational Administration and Leadership  
B.A. 1978, University of Minnesota-Duluth; M.S. 1984, Ed.D. 1985, Oklahoma State University

**Miller, Scott L. (1993)**

Assistant Professor of Music  
B.A. 1988, SUNY-Oneonta; M.M. 1991, University of North Carolina-Chapel Hill; Ph.D. 1994, University of Minnesota-Twin Cities

**Miller, Terry K. (1992)**

Associate Professor of Teacher Development  
B.A. 1973, M.A.T. 1974, Colorado College; M.S. 1982, University of Wisconsin-La Crosse; Ph.D. 1990, University of Minnesota-Twin Cities

**Mills, Mark L. (1992)**

Assistant Professor of Mass Communications  
B.A. 1976, University of Iowa; M.A. 1991, University of Maryland-College Park

**Mills-Novoa, Avelino (1992)**

Associate Professor of Applied Psychology; Chairperson  
B.A. 1974, M.A. 1981, Ph.D. 1991, University of Minnesota-Twin Cities

**Minden, Gerry M. (1972)**

Assistant Vice President for Research and Faculty Development  
B.S. 1971, M.S. 1973, Bemidji State University; Ed.D. 1991, College of Saint Thomas

**Minden, Pamela Mattick (1976)**

Professor of Child and Family Studies; Chairperson  
B.S. 1966, Iowa State University of Science and Technology; M.A. 1967, Ph.D. 1970, University of Minnesota-Twin Cities

**Mitteness, Cheryl R. (1996)**

Instructor in Finance, Insurance, Real Estate  
B.S. 1992, M.B.A. 1996, St. Cloud State University

**Mittlefehldt, Pamela J. (1988)**

Associate Professor; Coordinator, Center for Community Studies  
B.A. 1968, North Central College; M.A.T. 1970, University of Chicago; M.A. 1975, Ph.D. 1989, University of Minnesota-Twin Cities

**Miyagishima, Bryan (1997)**

Assistant Professor of Learning Resources and Technology Services  
B.A. 1986, M.Ed. 1987, University of California-Los Angeles

**Moberg, Judith A. (1969-1975, 1987)**

Assistant Professor of Geography  
B.S. 1968, St. Cloud State University; M.S. 1969, Southern Illinois University-Edwardsville

**Moghaddam, Masoud (1983)**

Professor of Economics  
B.S. 1974, National University of Tehran (Iran); M.S. 1978, Ph.D. 1983, Iowa State University of Science and Technology

**Molden, Danny T. (1997)**

Assistant Professor of Speech Communication  
B.S. 1991, Kansas State University; M.A. 1994, University of Minnesota-Twin Cities

**Mooney, Kathleen K. (1986)**

Professor of Accounting; Chairperson  
B.S. 1984, St. Cloud State University; Ph.D. 1989, Texas A & M University

**Mooney, Steven P. (1982-1984, 1986)**

Professor of Finance, Insurance, Real Estate; Chairperson  
B.S. 1971, University of Wisconsin-River Falls; M.S. 1982, Southern Methodist University; Ph.D. 1989, Texas A & M University

**Moore, Albert L. (1971)**

Professor of Music  
B.M.Ed. 1966, Texas Tech University; M.S. 1968, University of Illinois at Urbana-Champaign; D.M.A. 1981, University of North Texas

**Moore, Charles E. (1989)**

Professor of Educational Administration and Leadership; Chairperson  
B.S. 1969, M.S. 1973, Bemidji State University; S.P.E.C. 1978, St. Cloud State University; Ph.D. 1980, University of Nebraska-Lincoln

**Morgan, William T. (1978)**

Professor, Center for Community Studies

B.A. 1955, Macalester College; M.A. 1962, Ph.D. 1972, University of Minnesota-Twin Cities

**Mork, David Peter Sogn (1968)**

Professor of Biological Sciences

B.S. 1964, Moorhead State University; M.S. 1966, Ph.D. 1969, Purdue University

**Morrissey, Frank P. (1970)**

Associate Director, Scholarships and Financial Aid

B.A. 1970, College of Saint Thomas

**Mortrude, Scott (1987)**

Assistant Registrar

B.S. 1985, St. Cloud State University

**Moses, Shana D. (1996)**

Admissions Representative

B.E.S. 1996, St. Cloud State University

**Motin, Susan Hubbs (1990)**

Assistant Professor of Learning Resources and Technology Services

B.A. 1982, Albion College; A.M.L.S. 1984, University of Michigan-Ann Arbor

**Mowe, Richard E. (1989)**

Associate Professor of Statistics

B.A. 1967, University of Washington; M.A. 1976, Chapman College; Ph.D. 1989, University of Oregon

**Mueller, Isolde M. (1996)**

Assistant Professor of Foreign Languages and Literature

B.A. 1983, Gertrud-Von-Le-Fort-Gymnasium; M.A. 1989, University of Innsbruck; Ph.D. 1996, University of Minnesota

**Murphy, John E. (1980)**

Professor of Sociology and Anthropology

B.A. 1968, M.A. 1971, Western Illinois University; Ph.D. 1979, Southern Illinois University at Carbondale

**Murphy, Robert J. (1969)**

Professor of Applied Psychology

B.S. 1964, Fordham University; Ph.D. 1970, University of Tennessee-Knoxville

**Murray, Richard E. (1980)**

Director, Career Services

B.S. 1971, M.S. 1976, Mankato State University

**Musah, Al-Hassan Issah (1990)**

Interim Dean, College of Science and Engineering

B.S. 1978, University of Ghana; M.S. 1983, Ph.D. 1986, Iowa State University of Science and Technology

**Naraine, Bishnu (1989)**

Professor of Mathematics

B.A. 1976, University of Guyana; M.A. 1986, Ph.D. 1989, Ohio State University

**Narayana, Aswartha (1984)**

Professor of Electrical Engineering

B.E. 1969, Si Vi University-Anantapur (India); M.Tech. 1972, Indian Institute of Technology-Madras (India); Ph.D. 1984, University of Massachusetts-Amherst

**Nastrom, Gregory D. (1988)**

Professor of Earth Sciences

B.Phys. 1968, M.S. 1975, Ph.D. 1980, University of Minnesota-Twin Cities

**Nayenga, Peter F. (1977)**

Professor of History

B.A. 1968, University of East Africa; M.A. 1969, Ph.D. 1976, University of Michigan-Ann Arbor

**Nearing, Ruth J. (1970)**

Professor of Health, Physical Education, Recreation, and Sport Science

B.S. 1963, M.S. 1970, East Stroudsburg University of Pennsylvania; Ph.D. 1985, Texas Woman's University

**Nelson, Charles L. (1975)**

Professor of Earth Sciences

B.A. 1968, Gustavus Adolphus College; M.S. 1973, Ph.D. 1974, University of Chicago

**Nelson, J. M. (1972)**

Professor of Learning Resources and Technology Services

B.S. 1963, M.S. 1966, M.S.L.S. 1972, D.Ed. 1972, East Texas State University

**Nelson, Thomas C. (1996)**

Assistant Director, Athletic Media Relations

B.A. 1993, North Central College

**Nestel, Gerald E. (1969)**

Professor of Environmental and Technological Studies

B.S. 1962, University of Wisconsin-Stout; M.S.Ed. 1963, Southern Illinois University at Carbondale; Ed.D. 1970, University of Arkansas

**Netter, Jacqueline (1993)**

Assistant Director, Scholarships and Financial Aid

B.S. 1986, North Dakota State University

**Neu, Donald R. (1993)**

Associate Professor of Chemistry

B.S. 1989, Mankato State University; Ph.D. 1993, University of Wisconsin-Madison

**Neumann, Thomas J. (1995)**

Director, University Conference and Information Center, Atwood Center B.S. 1989, St. Cloud State University

**Nistler, Jeanine M. (1996)**

Communications Specialist, University Communications

B.A. 1979, St. Cloud State University

**Nolan Julstrom, Anne C. (1997)**

Instructor in Business Computer Information Systems

B.S. 1980, M.S. 1983, University of Iowa; J.D. 1992, University of Minnesota Law School

**Noll, Mary Beth (1993)**

Associate Professor of Special Education

B.S. 1973, M.S. 1974, Ph.D. 1985, University of Kansas

**Nook, Mark A. (1990)**

Associate Professor of Physics, Astronomy and Engineering Science

B.A. 1980, Southwest State University; M.S. 1983, Iowa State University of Science and Technology; Ph.D. 1990, University of Wisconsin-Madison

**Nunes, Dennis L. (1975)**

Dean, Graduate Studies; Director of Summer Sessions

B.A. 1968, Linfield College; M.R.E. 1970, North American Baptist Seminary; Ph.D. 1976, Utah State University

**O'Hanlon, Shawn (1993)**

Assistant Director, Admissions

B.S. 1993, St. Cloud State University

**O'Neill, James E. (1964)**

Professor of Foreign Languages and Literature

B.A. 1957, M.Ed. 1963, College of Saint Thomas

**O'Toole, Thomas E. (1985)**

Professor of Sociology and Anthropology

B.A. 1963, Saint Mary's College; M.A. 1967, University of Minnesota-Twin Cities; D.A. 1976, Carnegie-Mellon University

**Odette, Jenifer L. (1995)**

Instructor in Women's Athletics

B.S. 1989, North Dakota State University

**Oleksey, Vicky J. (1996)**

Instructor in Business Computer Information Systems

B.S. 1984, University of Phoenix; M.B.A. 1988, Boise State University

**Olsberg, Michael D. (1967)**

Assistant Professor of Accounting

B.S. 1962, Valley City State University; M.S. 1967, University of North Dakota

**Olsen, Jane M. (1989)**

Director, Women's Center

B.A. 1980, M.A. 1984, Sangamon State University

**Onstad, Steven (1989)**

Assistant Professor; Highway Traffic Safety Center

B.S. 1973, Mankato State University; M.S. 1982, College of Saint Thomas

**Opatz, Joseph P. (1986)**

Special Assistant to the President-Institutional Research and Planning

B.A. 1975, St. Cloud State University; M.Ed. 1976, Kent State University; Ph.D. 1982, University of Minnesota-Twin Cities

**Orenstein, Roger B. (1997)**

Associate Professor of Management

B.S. 1949, M.S. 1950, Ph.D. 1956, Illinois Institute of Technology

**Ostman, Jessica M. (1988)**

Director, University Programming

B.S. 1987, M.B.A. 1992, St. Cloud State University

**Ouellette, Lawrence V. (1997)**

Instructor in Highway Traffic Safety

**Overland, Maribeth S. (1994)**

Volunteer Link Program Coordinator, University Organizations

B.A. 1993, University of North Dakota

**Oxton, John R. (1967)**

Associate Professor of Health, Physical Education, Recreation, and Sport Science

B.S. 1963, Dickinson State University; M.S. 1967, University of North Dakota

**Palm, Glen F. (1983)**

Professor of Child and Family Studies

B.S. 1971, Loyola University of Chicago; M.A. 1975, University of Connecticut; Ph.D. 1981, University of Minnesota-Twin Cities

**Palmer, John W. (1976)**

Director, Minnesota Highway Safety Center

B.S. 1970, Illinois State University; M.S. 1974, Ripon College; S.P.E.C. 1978, St. Cloud State University; Ph.D. 1981, University of Minnesota-Twin Cities

**Parham, Sidney F. (1979)**

Professor of English

B.A. 1966, Washington and Lee University; M.A. 1969, University of Virginia; Ph.D. 1975, Tufts University

**Parrott, June M. (1989)**

Associate Professor of Minority Studies

B.A. 1960, Creighton University; M.A. 1972, University of Massachusetts at Amherst; Ph.D. 1984, Johns Hopkins University

**Partridge, Mark D. (1995)**

Assistant Professor of Economics

B.A. 1985, University of Montana; M.S. 1987, University of Wyoming; Ph.D. 1991, University of Illinois at Urbana-Champaign

**Pascual, Francis G. (1997)**

Assistant Professor of Statistics

B.S. 1988, Ateneo de Manila University (Philippines); M.S. 1994, Ph.D. 1997, Iowa State University of Science and Technology

**Pasela, Jerome E. (1988)**

Assistant Director, International Studies

B.A. 1971, Cleveland State University; M.A. 1972, Ohio University

**Paulson, Richard A. (1989)**

Professor of Business Computer Information Systems

B.A. 1973, University of Washington; M.B.A. 1984, University of Nevada-Las Vegas; Ph.D. 1989, University of Oregon

**Pawlowski, Matthew J. (1985)**

Assistant Professor of Men's Athletics

B.S. 1979, Eastern Montana College

**Pearson, John M. (1995)**

Associate Professor of Business Computer Information Systems

B.A. 1977, M.A. 1985, St. Cloud State University; Ph.D. 1991, Mississippi State University

**Peck, John H. (1968)**

Professor of Biological Sciences

B.A. 1964, Clark University; Ph.D. 1968, University of California-Berkeley

**Pehler, James C. (1967)**

Associate Professor of Learning Resources and Technology Services

B.S. 1965, M.A. 1967, St. Cloud State University

**Perkins, Reginald (1996)**

Admissions Representative

B.E.S. 1991, St. Cloud State University

**Perrier, Ronald G. (1975)**

Professor of Theatre and Film Studies

B.S. 1962, University of Wisconsin-River Falls; M.A. 1968, Ph.D. 1972, University of Minnesota-Twin Cities

**Perry, Constance M. (1985)**

Professor of English

B.A. 1977, College of Saint Catherine; M.A. 1980, Ph.D. 1982, Indiana University-Bloomington

**Pesch, Michael J. (1987)**

Professor of Management; Chairperson

B.A. 1978, University of Minnesota-Twin Cities; M.S. 1981, M.B.A. 1982, Ohio State University; Ph.D. 1990, University of Minnesota-Twin Cities

**Petersen, Brett (1994)**

Assistant Hockey Coach; Men's Head Golf Coach

B.S. 1992, University of Denver

**Peterson, Patricia E. (1983)**

Assistant Professor of Learning Resources and Technology Services

B.S. 1963, Mayville State University; M.S. 1979, St. Cloud State University

**Peterson, Terrance (1976)**

Professor of Applied Psychology

B.S. 1965, University of Wisconsin-Eau Claire; M.S. 1968, Ph.D. 1970, University of Wisconsin-Madison

**Petrangelo, George (1976)**

Professor of Applied Psychology

B.S. 1969, University of Wisconsin-River Falls; M.S. 1973, M.S. 1974, University of Wisconsin-Stout; Ed.D. 1976, University of Northern Colorado

**Pfleger, Lawrence R. (1979)**

Professor of Counseling and Related Services

B.S. 1967, M.A. 1969, Ph.D. 1977, University of Wisconsin-Madison; B.S. 1986, St. Cloud State University

**Phan, Dien Dean (1991)**

Professor of Business Computer Information Systems

B.S. 1978, St. Cloud State University; M.B.A. 1980, University of Minnesota-Twin Cities; Ph.D. 1990, University of Arizona

**Pickle, Brad (1989)**

Associate Director, Campus Recreation

B.A. 1984, University of Minnesota-Morris; M.S. 1988, St. Cloud State University

**Pluth, Edward J. (1966)**

Associate Professor of History

B.S. 1959, M.S. 1963, St. Cloud State University; Ph.D. 1970, Ball State University

**Polesak, Fred G. (1964)**

Associate Professor of Learning Resources and Technology Services

B.S. 1961, St. Cloud State University; M.A. 1965, University of Northern Colorado

**Polley, Douglas E. (1991)**

Associate Professor of Management

M.A. 1971, M.A. 1973, Ph.D. 1991, University of Minnesota-Twin Cities

**Porter, Laurinda W. (1984)**

Professor of Speech Communication

B.S. 1968, Northwestern University; M.A. 1971, Ph.D. 1981, University of Minnesota-Twin Cities

**Pou, Carol (1969)**

Professor of Biological Sciences

B.A. 1964, Viterbo College; M.S. 1966, Ph.D. 1969, Catholic University of America

**Pou, Wendell M. (1966)**

Professor of Physics, Astronomy and Engineering Science

B.S. 1959, Millsaps College; M.S. 1962, Ph.D. 1969, Vanderbilt University

**Preble, Jana M. (1986)**

Professor of Applied Psychology

B.A. 1963, Grinnell College; M.C.S. 1981, Creighton University; M.A. 1984, Ed.D. 1986, University of Nevada-Reno

**Present, Richard D. (1976)**

Associate Professor of Social Work; Chairperson

B.A. 1967, MacMurray College; M.S.W. 1969, SUNY-Buffalo; Ph.D. 1981, University of Minnesota-Twin Cities

**Prochnow, Robert R. (1972)**

Professor of Psychology

B.A. 1960, North Central College; M.A. 1967, University of Wisconsin-Madison; Ph.D. 1972, University of Texas at Austin

**Prout, Robert S. (1972)**

Professor of Criminal Justice

LL.B. 1967, La Salle University; B.A. 1969, Muskingum College; M.Ed. 1970, Ohio University-Athens; Ph.D. 1972, Ohio State University-Columbus

**Pryately, Margaret J. (1989)**

Associate Professor of Speech Communication

B.A. 1975, M.A. 1976, Miami University Oxford Campus; Ph.D. 1989, University of Oklahoma-Norman

**Przytula, Tomasz Piotr (1991)**

Associate Professor of Mass Communications

M.A. 1978, Poland University of Lodz; M.A. 1982, Ph.D. 1995, University of Minnesota-Twin Cities

**Pucel, Joanna K. (1977)**

Associate Professor of Speech Communication

B.S. 1974, St. Cloud State University; M.A. 1985, University of Minnesota-Twin Cities

**Purdum, Boyd A. (1968)**

Professor of Teacher Development

B.A. 1957, M.A. 1961, University of Kentucky; Ed.D. 1968, George Peabody College

**Purdum, Dixie D. (1975)**

Assistant Professor of Teacher Development

B.A. 1958, M.A. 1961, University of Kentucky

**Raiber, Kenneth W. (1980)**

Associate Professor of Aviation

B.S. 1962, M.S. 1985, St. Cloud State University

**Rashidi, Nasser H. (1990)**

Associate Professor of Electrical Engineering

B.S. 1979, M.S. 1981, Tuskegee University; Ph.D. 1988, University of Wyoming

**Reese, Sandra C. (1976)**

Professor of Special Education

B.A. 1964, Ohio Wesleyan University; M.A. 1965, Ph.D. 1967, Ohio State University

**Reid, Sherwood J. (1966)**

Director, Admissions

B.A. 1962, Hamline University; B.S. 1966, M.S. 1975, St. Cloud State University

**Reimer, Matthew M. (1997)**

Instructor in Men's Athletics

B.A. 1991, Central College; M.S. 1997, St. Cloud State University

**Renn, Dorothy L. (1973)**

Professor of Applied Psychology

B.A. 1968, University of Louisville; M.A. 1971, Ph.D. 1976, SUNY-Buffalo

**Rhee, Yinsog (1988)**

Associate Professor of Management

B.A. 1964, Yonsei University; M.A. 1969, Ph.D. 1985, University of Minnesota-Twin Cities

**Ribbens, Barbara A. (1993)**

Assistant Professor of Management

B.S. 1981, Trinity Christian College; M.B.A. 1989, University of Wyoming; Ph.D. 1994, University of Connecticut

**Richardson, Mary G. (1997)**

Assistant Professor of Statistics

B.S. 1989, Southwest Missouri State University; M.A. 1993, Ph.D. 1997, University of Missouri-Columbia

**Richason, Benjamin F. (1978)**

Professor of Geography

B.S. 1970, Carroll College; M.A.T. 1972, Western Oregon State College; Ph.D. 1978, Michigan State University



**Riley, Sarah Rogers (1997)**

Admissions Representative  
B.A. 1997, St. Cloud State University

**Ringer, R. Jeffrey (1987)**

Professor of Speech Communication  
B.A. 1979, Edinboro University of Pennsylvania; M.A. 1984, Fairfield University; Ph.D. 1987, Ohio University

**Risk, Harold F. (1979)**

Professor of Health, Physical Education, Recreation, and Sport Science  
B.S. 1974, M.S. 1975, Indiana State University; Ph.D. 1983, Southern Illinois University at Carbondale

**Robertson, Kent A. (1983)**

Professor, Center for Community Studies  
B.A. 1975, Wake Forest University; M.C.P. 1977, University of Cincinnati; Ph.D. 1981, University of Delaware

**Robin, Sandra C. (1992)**

Associate Professor of Social Work  
B.A. 1970, University of Minnesota-Twin Cities; M.S.W. 1976, University of Denver; Ph.D. 1989, University of Minnesota-Twin Cities

**Robinson, David H. (1985)**

Professor of Statistics  
B.S. 1975, Henderson State University; M.S. 1976, Ph.D. 1979, University of Iowa

**Robinson, James H. (1989)**

Professor of English  
B.A. 1972, M.A. 1974, University of Kansas; M.A. 1980, Ph.D. 1983, Stanford University

**Robinson, Lora H. (1979)**

Associate Professor of Business Computer Information Systems  
B.A. 1963, M.A. 1964, University of Iowa; Ph.D. 1972, University of California-Los Angeles; M.B.A. 1986, St. Cloud State University

**Robinson, Richard J. (1979)**

Assistant Professor of English  
B.A. 1962, M.A. 1965, University of Iowa; M.J. 1968, University of California-Los Angeles

**Robley, Quentin (1970)**

Assistant Professor of Special Education  
B.S. 1968, St. Cloud State University

**Rockenstein, Zoa L. (1989)**

Professor of Psychology; Chairperson  
B.A.E. 1971, M.A.T. 1980, University of Florida; M.Ed. 1982, Ph.D. 1985, University of Georgia

**Rodgers, William C. (1979)**

Professor of Marketing and General Business; Director of Entrepreneurial Center  
B.A. 1964, St. Ambrose University; M.B.A. 1966, San Jose City College; Ph.D. 1977, University of Iowa

**Roman-Morales, Belen (1991)**

Associate Professor of Foreign Languages and Literature  
B.A. 1980, M.A. 1985, University of Puerto Rico Rio-Piedras Campus; Ph.D. 1991, Florida State University

**Romanish, Bruce (1982)**

Professor of Teacher Development  
B.S. 1971, Mansfield University of Pennsylvania; M.Ed. 1975, Kutztown University of Pennsylvania; Ed.D. 1980, Pennsylvania State University

**Roney, Lois Y. (1987)**

Professor of English  
B.A. 1961, Stanford University; M.A. 1965, University of Chicago; Ph.D. 1978, University of Wisconsin-Madison

**Rose, Charles L. (1997)**

Assistant Professor of Environmental and Technological Studies  
B.S. 1983, B.S. 1985, North Dakota State University; M.S. 1992, University of Minnesota-Duluth; Ph.D. 1996, Iowa State University of Science and Technology

**Roser, Sherman R. (1979)**

Professor of Accounting  
B.A. 1961, Ursinus College; M.B.A. 1973, Old Dominion University; Ph.D. 1979, University of Nebraska-Lincoln

**Ross, Roseanna G. (1980)**

Professor of Speech Communication; Director, Faculty Center for Teaching Excellence  
B.S.Ed. 1971, Ph.D. 1982, Ohio University-Athens; M.A. 1972, Ohio State University-Columbus;

**Ross, Suzanne (1989)**

Associate Professor of English  
B.A. 1972, M.A. 1983, Ph.D. 1989, University of Illinois at Urbana-Champaign

**Roth, Lawrence (1990)**

Professor of Management  
B.S. 1981, University of Oregon; M.S. 1984, Ph.D. 1987, Tulane University

**Rothaus, Richard M. (1995)**

Assistant Professor of History  
B.A. 1985, Florida State University; M.A. 1989, Vanderbilt University; Ph.D. 1993, Ohio State University

**Rotto, Luther I. (1976-1978, 1981, 1985)**

Associate Professor of Learning Resources and Technology Services  
B.A. 1971, Luther College; M.S. 1976, St. Cloud State University

**Rude, Renee (1987)**

Assistant Professor of Learning Resources and Technology Services  
B.A. 1979, M.S. 1987, St. Cloud State University

**Rudolph, Roger L. (1987)**

Assistant Professor of Mass Communications  
B.A. 1977, University of Minnesota-Twin Cities; M.B.A. 1982, College of Saint Thomas

**Rudrud, Eric H. (1982)**

Professor of Applied Psychology  
B.S. 1972, Colorado State University; M.S. 1974, Ph.D. 1978, Utah State University

**Ruhr, William D. (1987)**

Assistant Professor; Highway Traffic Safety Center  
B.S. 1980, St. Cloud State University

**Rundquist, Suellen O. (1992)**

Associate Professor of English  
B.A. 1966, Saint Olaf College; M.A. 1985, M.A. 1987, Ph.D. 1991, University of Minnesota-Twin Cities

**Rysavy, Sister Del Marie (1990)**

Associate Professor of Statistics  
B.A. 1965, Mount Mary College; M.S. 1971, University of Oregon; Ph.D. 1991, University of Minnesota-Twin Cities

**Sadrai, Mahin (1988)**

Professor of Chemistry  
B.S. 1975, University of Tehran; M.S. 1986, Rochester Institute of Technology; Ph.D. 1987, Rutgers the State University of New Jersey

**Salk, Janet L. (1976)**

Associate Professor of Special Education  
B.S. 1976, M.S. 1981, St. Cloud State University



- Saltz, Joanne C. (1987)**  
Professor of Foreign Languages and Literature  
B.S. 1957, Northwestern University; M.A. 1958, University of Chicago; M.A. 1981, Ph.D. 1987, University of California-San Diego
- Samuel, Patricia A. (1981)**  
Associate Professor; Director, Women's Studies  
B.A. 1963, Shimer College; J.D. 1969, University of Pennsylvania
- Sandberg, Patricia (1996)**  
Assistant Professor of Theatre and Film Studies  
B.A. 1972, Brown University; M.A. 1973, Ph.D. 1979, University of Illinois at Urbana-Champaign
- Sandoval, Jeremy J. (1997)**  
Instructor in Music  
B.M. 1994, University of Northern Colorado; M.M. 1997, East Carolina University
- Sarnath, Ramnath (1993)**  
Associate Professor of Computer Science  
B.T. 1984, M.T. 1987, Indian Institute of Technology-New Delhi; Ph.D. 1994, SUNY-Buffalo
- Sarwar, Ghulam (1996)**  
Assistant Professor of Finance, Insurance, Real Estate  
M.S. 1984, University of the Philippines; Ph.D. 1989, University of Nebraska-Lincoln; Ph.D. 1997, Oklahoma State University
- Savage, Mary A. (1966)**  
Associate Professor of Foreign Languages and Literature  
B.A. 1962, College of Saint Catherine; M.A. 1966, University of Wisconsin-Madison
- Schaffer, Mary Kay Banister (1992)**  
Assistant Professor of Sociology and Anthropology  
B.A. 1967, Ph.D. 1997, University of Minnesota-Twin Cities; M.A. 1972, College of Saint Thomas
- Scheel, Elizabeth D. (1997)**  
Assistant Professor of Sociology and Anthropology  
B.A. 1990, University of California-Santa Cruz; M.A. 1993, University of California-Irvine
- Schellinger, Diane D. (1996)**  
Assistant Director, Residential Life  
B.A. 1981, M.S. 1990, St. Cloud State University
- Schlagel, Kevin L. (1982)**  
Assistant Professor of Men's Athletics  
B.S. 1977, M.S. 1982, St. Cloud State University
- Schmidt, Margaret E. (1994)**  
Assistant Professor of Music  
B.M. 1974, Lawrence University; M.M. 1979, SUNY-Stony Brook; Ph.D. 1994, University of Michigan-Ann Arbor
- Schmidt, Orville H. (1967)**  
Professor of Political Science  
B.A. 1956, University of Minnesota-Twin Cities; M.A. 1962, George Washington University; Ph.D. 1967, West Virginia University
- Schmidt, Russell H. (1969)**  
Professor of Teacher Development  
B.S. 1955, Winona State University; M.S.E.E. 1965, University of Minnesota-Twin Cities; Ed.D. 1968, University of Florida
- Schneider, Kenneth (1974)**  
Professor of Marketing and General Business  
B.A. 1970, M.S. 1972, Ph.D. 1975, University of Minnesota-Twin Cities
- Schoenberger, Annette (1987)**  
Professor of Computer Science  
B.A. 1972, MacMurray College; M.S. 1976, Illinois State University; Ph.D. 1987, Iowa State University of Science and Technology
- Schoenberger, Richard J. (1986)**  
Professor of Physics, Astronomy and Engineering Science  
B.S. 1964, Illinois Benedictine College; Ph.D. 1971, Iowa State University of Science and Technology
- Scholz, Joseph T. (1997)**  
Assistant Professor of Environmental and Technological Studies  
B.S. 1986, Millersville University of Pennsylvania; M. In.Ed. 1988, Clemson University; Ph.D. 1995, Virginia Polytechnic Institute and State University
- Schrader, Rhoda E. (1995)**  
Director, University Organizations  
B.A. 1979, University of Minnesota-Morris; M.P.A. 1995, Moorhead State University
- Schrank, Gordon D. (1981)**  
Professor of Biological Sciences  
B.S. 1970, Angelo State University; Ph.D. 1974, University of Texas Medical Branch at Galveston
- Schreiber, Francis B. (1979)**  
Professor of Criminal Justice  
B.A. 1971, Hope College; M.A. 1974, Ph.D. 1977, University of Colorado-Boulder
- Schuh, Timothy J. (1993)**  
Associate Professor of Biological Sciences  
B.S. 1984, University of Wisconsin-Stevens Point; Ph.D. 1990, University of Wisconsin-Madison
- Schultz, David P. (1975)**  
Associate Professor; Highway Traffic Safety Center  
B.A. 1975, St. Cloud State University
- Schulze, Kimberly A. (1988)**  
Professor of Applied Psychology  
B.S. 1979, Morningside College; M.S. 1984, St. Cloud State University; Ph.D. 1990, Utah State University

**Schwaller, Anthony E. (1978)**

Professor of Environmental and Technological Studies; Chairperson  
B.S. 1967, M.S. 1968, University of Wisconsin-Stout; Ph.D. 1976, Indiana State University

**Schwerdtfeger, Dale W. (1971)**

Professor of Sociology and Anthropology  
B.A. 1966, McKendree College; M.A. 1972, Ph.D. 1981, Southern Illinois University at Carbondale

**Schwerdtfeger, Toshiko (1987)**

Assistant Director, University Programming  
B.A. 1967, McKendree College; M.A. 1977, St. Cloud State University

**Schwieger, Bradley J. (1976)**

Professor of Accounting  
B.A. 1957, Mankato State University; M.B.A. 1960, D.B.A. 1970, Indiana University-Bloomington

**Scofield, Cherie R. (1988-1994, 1995)**

Assistant Professor of Accounting  
B.S. 1987, M.S. 1989, St. Cloud State University

**Scott-Halverson, Linda (1988)**

Professor of Teacher Development  
B.A. 1972, Wichita State University; M.A. 1975, Ph.D. 1982, University of Minnesota-Twin Cities

**Scully, Daniel J. (1988)**

Associate Professor of Mathematics  
B.A. 1975, Saint John's University; M.A. 1983, University of Minnesota-Twin Cities; Ph.D. 1988, Utah State University

**Sebastian, Kay Collins (1987)**

Director of Annual Funds, Alumni and Foundation  
B.A. 1970, College of Saint Francis

**Sebastian, Richard J. (1983)**

Professor of Management; Director, Center for Business Research  
B.A. 1970, Lewis University; M.A. 1972, Ph.D. 1974, University of Wisconsin-Madison

**Sebberson, David R. (1989)**

Professor of English  
B.A. 1974, Gustavus Adolphus College; M.A. 1978, Ph.D. 1988, University of Maryland-College Park

**Secklin, Pam L. (1997)**

Assistant Professor of Speech Communication  
B.A. 1986, Northern Michigan University; M.A. 1988, University of South Florida; Ph.D. 1995, Purdue University

**Seefeldt, Charles W. (1977)**

Assistant Professor of Criminal Justice; Chairperson  
B.S. 1974, M.A. 1977, St. Cloud State University; J.D. 1993, William Mitchell College of Law

**Seibring, Ronald (1985)**

Director, Sport Facilities and Campus Recreation  
B.S. 1978, M.S. 1982, Western Illinois University

**Seifert, John G. (1997)**

Assistant Professor of Health, Physical Education, Recreation and Sport Science  
B.S. 1984, Boise State University; M.A. 1986, Miami University Oxford Campus; Ph.D. 1994, University of Utah

**Serrano, Ramon A. (1994)**

Associate Professor of Teacher Development  
B.A. 1990, Inter American University-Puerto Rico; M.A. 1991, Ph.D. 1994, Pennsylvania State University

**Serratore, Tom (1993)**

Instructor in Men's Athletics  
B.S. 1987, Bemidji State University

**Sheehan, Therese (1986)**

Professor of Health, Physical Education, Recreation, and Sport Science  
B.S. 1978, Illinois State University; M.S. 1986, Ph.D. 1989, University of Missouri-Columbia

**Sheppard, Lois Arleen (1970-1975, 1977)**

Assistant Professor of English  
B.A. 1970, Lake Superior State University; M.A. 1977, St. Cloud State University

**Sherarts, Theodore (1966)**

Professor of Art  
B.P.H. 1964, University of North Dakota; M.F.A. 1966, California College of Arts and Crafts

**Sherohman, James L. (1978)**

Professor of Sociology and Anthropology  
B.A. 1968, University of Minnesota-Twin Cities; M.A. 1971, Ph.D. 1977, University of Illinois at Urbana-Champaign

**Shetty, Reena (1995)**

Residence Hall Director  
B.S. 1995, Northern Michigan University

**Shinnick, Peter L. (1995)**

Instructor in Men's Athletics  
B.S. 1988, University of Colorado-Boulder; M.S. 1992, Clemson University

**Shipshock, Terri (1996)**

Director of Major Gifts, Alumni and Foundation  
B.A. 1988, Bellevue College

**Shoemaker, Marsha A. (1993)**

Interim Director of Communications, University Communications  
B.A. 1971, Augustana College

**Shurt, George W. (1967)**

Professor of Earth Sciences  
B.A. 1965, University of South Dakota; M.S. 1967, Northwestern University; Ph.D. 1975, University of Montana

**Simpson, Eleanor E. (1969)**

Professor, Center for Community Studies  
B.A. 1960, Park College; M.A. 1964, San Francisco State University; Ph.D. 1974, University of Minnesota-Twin Cities

**Simpson, Patricia (1989)**

Associate Professor of Biological Sciences  
B.A. 1976, Blackburn College; M.S. 1986, Ph.D. 1989, Southern Illinois University at Carbondale

**Skalbeck, Bruce A. (1967-1971, 1977)**

Professor of Management  
B.A. 1965, Mankato State University; M.B.A. 1967, University of Denver; Ph.D. 1975, University of Northern Colorado

**Sleeper, Bradley (1990-1994, 1995)**

Associate Professor of Marketing and General Business  
B.A. 1973, University of Notre Dame; J.D. 1976, University of Minnesota-Twin Cities

**Smale, Marcelyn J. (1990)**

Professor of Music  
B.M. 1968, Saint Olaf College; M.M. 1970, University of Illinois at Urbana-Champaign; Ph.D. 1987, University of Minnesota-Twin Cities

**Smith, James A. (1994)**

Assistant Professor of Accounting  
B.A. 1984, M.B.A. 1991, D.B.A. 1994, Louisiana Tech University

**Sneide, Gary A. (1997)**

Assistant Professor of Finance, Insurance and Real Estate  
B.A. 1971, University of Minnesota-Duluth; M.B.A. 1976, Mankato State University; Ph.D. 1992, University of Georgia

**Song, Jae H. (1978)**

Professor of Business Computer Information Systems  
B.S. 1964, Seoul National University; M.S. 1970, Imperial College-London University; M.B.A. 1974, Ph.D. 1978, University of Minnesota-Twin Cities

**Soroko, Mary P. (1985)**

Assistant to the Vice President for Administrative Affairs  
B.A. 1982, University of Minnesota-Duluth; M.S. 1986, St. Cloud State University; Ed.D. 1997, University of Minnesota-Twin Cities

**Specht-Jarvis, Roland H. (1983)**

Dean, College of Fine Arts and Humanities  
M.A. 1983, M.A. 1983, Ph.D. 1988, Ruhr University-Bochum (Germany)

**Springer, Mark (1996)**

Assistant Professor of Music  
B.M. 1990, B.A. 1990, Washington State University; A.B.D. 1992, University of Wisconsin-Madison

**Spry, Tami L. (1992)**

Associate Professor of Speech Communication  
B.S. 1982, M.A. 1987, Eastern Michigan University; Ph.D. 1991, Southern Illinois University at Carbondale

**Stachowski, Thomas S. (1970)**

Associate Professor of Learning Resources and Technology Services  
B.S. 1970, M.S. 1978, St. Cloud State University

**Stadum, Beverly A. (1987)**

Professor of Social Work  
B.A. 1968, Augsburg College; M.S.W. 1973, Ohio State University; Ph.D. 1987, University of Minnesota-Twin Cities

**Stangl-Erkens, Suzanne L. (1988)**

Assistant Professor of Speech Communication  
B.A. 1986, Central College; M.A. 1988, University of Nebraska-Lincoln

**Starks-Martin, Gretchen A. (1994)**

Associate Professor of Counseling and Related Services  
B.A. 1970, University of Michigan-Ann Arbor; M.A. 1973, Western Michigan University; Ed.D. 1989, Syracuse University

**Steeves, Leroy R. (1964-1969, 1970)**

Assistant Professor of Teacher Development  
B.S. 1961, M.S. 1966, St. Cloud State University

**Stein, Thomas E. (1978)**

Director, Institutional Studies  
B.S. 1968, M.B.A. 1970, St. Cloud State University

**Stensland, Allen G. (1967)**

Assistant Professor of Geography  
B.A. 1959, Hamline University; M.S. 1965, Bemidji State University

**Steup, Matthias (1989)**

Professor of Philosophy  
M.A. 1981, Frankfurt University (West Germany); Ph.D. 1985, Brown University

**Stigman, James J. (1996)**

Director of Alumni Relations  
B.A. 1990, St. Cloud State University

**Stobb, Tamera M. (1997)**

Assistant Professor, Chemistry  
B.S. 1990, St. Cloud State University; Ph.D. 1997, Washington State University

**Stocker, Glenn M. (1978)**

Professor of Speech Communication  
B.S. 1963, Winona State University; M.A. 1967, University of North Dakota; Ph.D. 1975, Wayne State University

**Stokes, Eleanor M. (1989)**

Professor, Center for Community Studies  
B.A. 1973, M.A. 1975, Ph.D. 1981, SUNY-Stony Brook

**Street, Glenn M. (1987)**

Professor of Health, Physical Education, Recreation, and Sport Science  
B.A. 1979, M.A.S. 1983, St. Cloud State University; Ph.D. 1988, Pennsylvania State University

**Subrahmanyam, Lalita (1993)**

Associate Professor of Teacher Development  
B.A. 1974, Stella Maris College-Madras (India); B. Ed. 1975, University of Delhi (India); M.E.D. 1987, Tilak College-Pune (India); Ph.D. 1994, SUNY-Buffalo

**Sundby, Lawrence C. (1966-1971, 1975)**

Professor of Accounting  
B.A. 1963, M.B.A. 1967, St. Cloud State University; Ph.D. 1975, University of Nebraska at Omaha

**Sundheim, Richard A. (1988)**

Professor of Statistics  
B.S. 1971, M.S. 1974, Kansas State University; Ph.D. 1979, Purdue University

**Sundin, Cheri Rae (1984)**

Assistant Professor, Highway Traffic Safety Center  
B.S. 1981, St. Cloud State University

**Swank, Casey (1989)**

Associate Professor of Philosophy  
B.A. 1980, University of Missouri-Kansas City; M.A. 1982, Ph.D. 1989, University of North Carolina at Chapel Hill

**Tabakin, Geoffrey A. (1989)**

Associate Professor of Teacher Development  
B.A. 1968, Africa University of Cape Town; M.A. 1976, Ph.D. 1983, University of Wisconsin-Madison

**Tademe, Tamrat (1989)**

Assistant Professor of Human Relations and Multicultural Education  
B.A. 1977, M.A. 1986, University of Minnesota-Twin Cities

**Tallent, Dwaine R. (1979)**

Professor of Management  
B.A. 1957, College of Emporia; M.S. 1964, Kansas State University; Ph.D. 1970, University of Nebraska-Lincoln

**Taylor, Rita M. (1984)**

Assistant Director, Scholarships and Financial Aid  
B.E.S. 1988, St. Cloud State University

**Teal, Shawn A. (1995)**

Executive Director for University Relations and Foundation  
B.A. 1986, Concordia College-Moorhead

**Tennison, Philip C. (1967)**

Associate Professor of Teacher Development  
B.S. 1964, M.S. 1969, St. Cloud State University

**Teutsch-Dwyer, Marya (1996)**

Assistant Professor of English  
M.A. 1973, Jagellonian University; M.A. 1992, San Francisco State University; Ph.D. 1995, Stanford University

**Theis, John G. (1994)**

Instructor in Learning Resources and Technology Services  
B.S. 1985, M.S. 1994, St. Cloud State University

**Thomas, Alice M. (1993)**

Associate Dean, College of Education  
B.S. 1963, M.S. 1965, Cornell University; Ph.D. 1990, University of Minnesota-Twin Cities

**Thompson, Karen D. (1975)**

Professor of Health, Physical Education, Recreation, and Sport Science  
B.A. 1969, Muskingum College; M.S. 1975, St. Cloud State University

**Thompson, Merton E. (1989)**

Professor of Learning Resources and Technology Services  
B.S. 1973, University of Southern Maine; M.Ed. 1979, Utah State University; Ed.D. 1985, Indiana University-Bloomington

**Thoms, Karen Jarrett (1987)**

Associate Professor of Learning Resources and Technology Services  
B.S. 1977, M.S. 1978, Ph.D. 1985, University of North Dakota; M.S. 1996, St. Cloud State University

**Thornberg, Hope B. (1990)**

Professor of Aviation  
B.S.N. 1957, M.A. 1975, Ph.D. 1979, University of Minnesota-Twin Cities

**Tiberghien, Gretchen (1987)**

Associate Professor of Mass Communications  
B.A. 1968, College of Saint Catherine; M.S. 1969, Pittsburg State University

**Timmers, Beverly A. (1966)**

Associate Professor of Special Education  
B.S. 1964, M.S. 1966, St. Cloud State University

**Tompkins, Paula S. (1984)**

Professor of Speech Communication  
B.A. 1978, M.A. 1980, University of Kansas; Ph.D. 1987, University of Minnesota-Twin Cities

**Torguson, Jeffrey S. (1997)**

Assistant Professor of Geography  
B.A. 1987, St. Cloud State University; M.A. 1990, Ph.D. 1993, University of Georgia

**Tornquist, Kristi (1997)**

Dean, Learning Resources and Technology Services  
B.A. 1980, University of Minnesota-Morris; M.A. 1982, University of Wisconsin-Madison; Ph.D. 1992, University of Minnesota-Twin Cities

**Torrence, Judith L. (1976)**

Professor of Biological Sciences  
B.S. 1964, University of Wisconsin-Madison; Ph.D. 1971, University of Minnesota-Twin Cities

**Tripp, Luke S. (1989)**

Professor, Center for Community Studies  
B.S. 1966, Wayne State University; M.A. 1974, Ph.D. 1980, University of Michigan-Ann Arbor

**Tripp, Michael D. (1992)**

Associate Professor of Human Relations and Multicultural Education  
B.A. 1970, Michigan State University; M.S.W. 1972, Ph.D. 1981, University of California-Berkeley

**Turkowski, Adelaide Habstritt (1974)**

Interim Director, Career Services  
B.S. 1972, Bemidji State University; M.S. 1986, St. Cloud State University

**Twina-Dungan, Margaret A. (1976)**

Professor of Social Work  
B.A. 1969, Molloy College; M.S.W. 1973, University of Chicago

**Tyndall, Andrea G. (1993)**

Assistant Professor of History  
B.A. 1982, University of North Carolina at Wilmington; M.A. 1986, University of North Carolina at Greensboro; Ph.D. 1993, SUNY-Binghamton

**U'ren, Paula J. (1997)**

Instructor in Women's Athletics  
B.A. 1995, Augustana College

**Ulferts, Lori K. (1994)**

Associate Professor of Women's Athletics  
B.S. 1983, Ed.D. 1992, University of North Dakota; M.Ed. 1984, Frostburg State University

**Ullrich, Walter J. (1989)**

Professor of Teacher Development  
B.S. 1972, University of Wisconsin-Stevens Point; M.A. 1979, M.S. 1980, Ph.D. 1986, University of Wisconsin-Madison

**Umerski, Myron S. (1966)**

Registrar/Director of Advising and Orientation  
B.S. 1962, M.S. 1972, St. Cloud State University

**Uran, Michael T. (1988)**

Assistant Director, Scholarships and Financial Aid  
B.A. 1983, Concordia College-Saint Paul

**Vadnie, Michael (1981)**

Professor of Mass Communications  
B.A. 1970, College of Saint Thomas; J.D. 1981, University of North Dakota

**Valdes, Leslie A. (1993)**

Interim Associate Dean, College of Social Sciences  
B.A. 1989, University of South Florida; M.A. 1991, Ph.D. 1993, Adelphi University

**VanBuren, Phyllis E. (1975)**

Professor of Foreign Languages and Literature  
B.S. 1969, M.S. 1976, St. Cloud State University; Ph.D. 1992, Union Institute

**Veeder, Rex L. (1992)**

Associate Professor of English  
B.S. 1970, Illinois State University; M.A. 1973, University of Nebraska-Lincoln; M.F.A. 1979, Ph.D. 1992, University of Arizona

**Vermillion, Terry (1990)**

Assistant Professor of Music  
B.M. 1986, University of Montana; M.M. 1989, University of Northern Colorado

**Vesely, Barbara N. (1990)**

Associate Professor of Applied Psychology  
B.S. 1981, University of South Dakota; M.A. 1986, Ph.D. 1992, University of North Dakota

**Voelz, Neal J. (1993)**

Associate Professor of Biological Sciences  
B.A. 1980, Saint Olaf College; M.A. 1983, St. Cloud State University; Ph.D. 1990, Colorado State University

**Vora, Erika (1978)**

Professor of Speech Communication  
M.A. 1972, M.S. 1973, University of Bridgeport; Ph.D. 1978, SUNY-Buffalo



**Vora, Jay A. (1978)**

Professor of Management

B.E. 1959, India Gujarat University; M.S. 1961, Ph.D. 1969, Rensselaer Polytechnic Institute; M.E. 1965, City University of New York

**Vorder Bruegge, Andrew (1994)**

Assistant Professor of Theatre and Film Studies

B.A. 1974, University of Tennessee-Knoxville; M.A. 1979, University of South Carolina at Columbia; Ph.D. 1984, University of Missouri-Columbia

**Vos, Margaret (1986)**

Interim Director, Atwood Center

B.S. 1972, M.S. 1982, St. Cloud State University

**Wagner, Steven C. (1996)**

Assistant Professor of Political Science

B.S. 1979, Illinois State University; M.A.P.A. 1981, Ph.D. 1989, Northern Illinois University

**Wahl, Melvin E. (1993)**

Instructor in Mathematics

B.S. 1969, Jamestown College; M.S. 1989, North Dakota State University

**Walker, Freddie J. (1992)**

Assistant Director, Minority Student Programs

B.A. 1980, Morehouse College

**Walker, Steven J. (1994)**

Assistant Professor of Marketing and General Business

B.B.A. 1976, M.B.A. 1988, Ph.D. 1994, New Mexico State University

**Walter, Robert J. (1986)**

Professor of Marketing and General Business

B.B.A. 1970, J.D. 1974, University of Kentucky

**Ward, Edward A. (1990)**

Professor of Management

B.A. 1974, Eastern Illinois University; M.A. 1975, Ph.D. 1986, University of Nebraska-Lincoln

**Warne, David L. (1988)**

Assistant Professor of Speech Communication

B.S. 1981, Dakota State College; M.A. 1988, South Dakota State University

**Watkins, Ivan W. (1963)**

Professor of Earth Sciences

B.S. 1955, M.S. 1957, University of Kansas; Ph.D. 1968, Texas A & M University

**Waxlax, Robert G. (1970)**

Professor of Health, Physical Education, Recreation, and Sport Science

B.S. 1958, St. Cloud State University; M.S. 1960, Central Missouri State University; Ph.D. 1972, University of Minnesota-Twin Cities

**Wegener, E. Barry (1997)**

Director of Marketing and Communications, University Relations

B.A. 1972, University of North Dakota

**Weinberg, Randy (1987)**

Professor of Business Computer Information Systems

M.S. 1973, Michigan State University; B.M. 1971, Ph.D. 1986, University of Minnesota-Twin Cities

**Weise, Mary S. (1976)**

Associate Professor of Communication Disorders

B.S. 1963, University of Minnesota; M.S. 1971, St. Cloud State University

**Weisenberger, Harry L. (1997)**

Clinical Experiences Facilitator, Teacher Development

B.S. 1964, Minot State University; M.A. 1970, Ed.D. 1979, University of North Dakota

**Weisman, Robert A. (1988)**

Professor of Earth Sciences

B.S. 1982, University of Lowell; M.S. 1984, Ph.D. 1988, SUNY-Albany

**Weiss, Valory E. (1995)**

Residence Hall Director

B.S. 1995, St. Cloud State University

**Wellik, Jerry J. (1974)**

Professor of Special Education

B.S. 1967, University of Iowa; M.S. 1972, St. Cloud State University;

Ph.D. 1979, University of North Dakota

**Wells, Wayne R. (1983)**

Associate Dean, College of Business

B.A. 1970, California State University-Sacramento; J.D. 1977, L.L.M. 1981, University of the Pacific

**Wentworth, Brenda (1992)**

Associate Professor of Theatre and Film Studies; Chairperson

B.A. 1973, SUNY-Fredonia; M.A. 1978, University of South Carolina at Columbia; Ph.D. 1990, University of Missouri-Columbia

**Weston, Nancy J. (1992)**

Associate Professor of Art

B.A. 1970, Monmouth College; M.A. 1973, California State University-Long Beach; M.A. 1988, Ph.D. 1991, University of Southern California

**White, James E. (1964)**

Professor of Philosophy

A.B. 1961, Dartmouth College; M.A. 1963, Ph.D. 1968, University of Colorado-Boulder

**White, Michael D. (1978)**

Professor of Economics

B.B.A. 1972, Ph.D. 1978, Texas Tech University

**Whites, Margery (1988)**

Associate Professor of Communication Disorders

B.A. 1974, South Dakota State University; M.A. 1981, University of South Dakota; Ph.D. 1988, University of Kansas

**Whitford, Gary S. (1995)**

Assistant Professor of Social Work

B.S. 1973, University of Wisconsin-Platteville; M.Div. 1982, Wartburg Theological Seminary; M.S.W. 1989, Ph.D. 1993, University of Minnesota-Twin Cities

**Wick, Catherine A. (1994)**

Assistant Professor of Mathematics

B.S. 1964, Mount Mary College; M.A. 1978, University of New Mexico

**Wildeson, Daniel (1991)**

Associate Professor of Speech Communication

B.A. 1976, Biola University; M.A. 1984, Colorado State University; Ph.D. 1990, University of Oregon

**Wilhite, Carmen I. (1974)**

Professor of Music

B.M. 1965, M.Mus. 1968, University of Rochester; D.M.A. 1977, University of North Texas

**Williams, Dale A. (1987)**

Associate Dean, College of Science and Technology

B.A. 1961, Taylor University; M.S. 1972, Ph.D. 1973, Wayne State University

**Williams, Sandra Q. (1986)**

Associate Professor of Learning Resources and Technology Services

B.A. 1966, Western Washington University; M.L.S. 1972, University of Oregon; Ed.S. 1993, St. Cloud State University

**Williams, Steven F. (1974)**

Professor of Biological Sciences

B.S. 1966, University of Washington; M.A. 1968, University of California-Los Angeles; Ph.D. 1974, Oregon State University

**Williams, Suzanne R. (1997)**

Vice President for Academic Affairs

B.A. 1967, Randolph-Macon Woman's College; M.A. 1970, Ph.D. 1973, Duke University

**Williamson, Homer E. (1973)**

Professor of Political Science; Chairperson

B.A. 1962, Carleton College; M.A. 1963, Northwestern University; Ph.D. 1971, University of Minnesota-Twin Cities

**Wilson, Annette R. (1988)**

Special Assistant to the President-General Counsel

B.S. 1977, Southwest Missouri State University; J.D. 1980, Washington University

**Wilson, Bernadette (1996)**

Coordinator of University Judicial Affairs

B.A. 1993, M.A. 1996, St. Cloud State University

**Wilson, William C. (1990)**

Assistant Registrar

B.A. 1971, Middlebury College; M.Ed. 1975, University of Vermont; Ph.D. 1995, University of Minnesota

**Winter, Nathan S. (1993)**

Associate Professor of Chemistry

B.A. 1987, Macalester College; Ph.D. 1992, Washington University

**Wixon, Lewis G. (1966)**

Professor of Geography

B.A. 1963, University of Michigan-Ann Arbor; M.S. 1969, Ph.D. 1979, Indiana State University

**Wolfer, Alton C. (1968)**

Professor of History

B.S. 1964, North Dakota State University; M.S. 1968, Utah State University; D.A. 1979, University of North Dakota

**Womack, Maria (1997)**

Assistant Professor of Physics, Astronomy and Engineering Science

B.S. 1985, Florida State University; Ph.D. 1991, Arizona State University

**Wood, Bruce W. (1991)**

Associate Professor of Music; Chairperson

B.Mus. 1977, Morningside College; M.B.A.C. 1980, University of Wisconsin-Milwaukee

**Woodard, Janet Collins (1987)**

Professor of Biological Sciences

B.S. 1968, University of Wisconsin-Madison; Ph.D. 1983, University of Colorado at Denver

**Wyman, Hillevi M. (1996)**

Director of Research, Alumni and Foundation

B.A. 1986, University of California-Santa Cruz; M.L.S. 1995, San Jose State University

**Yilek, Dawn M. (1994)**

Teacher, Campus Child Care Center

B.A. 1987, St. Cloud State University

**Yook, Ken C. (1989)**

Professor of Finance, Insurance, Real Estate

B.A. 1978, Sogang University (Korea); M.B.A. 1984, West Virginia University; Ph.D. 1989, University of Nebraska-Lincoln

**Yoshimoto, Gary (1988)**

Associate Professor of Business Computer Information Systems

B.A. 1974, M.S.B.A. 1977, California State University-Sacramento; Ph.D. 1987, University of Oregon

**Yu, Warren Q. (1988)**

Professor of Manufacturing Engineering

B.S. 1965, Zhejiang University; M.S. 1984, Ph.D. 1988, Washington State University

**Zezoney, Frank (1980)**

Associate Professor of Men's Athletics

B.S. 1975, University of Nevada-Las Vegas; M.S. 1976, Fort Hays State University

**Zhao, Peiyi (1996)**

Associate Professor of Mathematics

B.S. 1982, Beijing Normal University (China); M.S. 1984, Beijing Teachers College (China); Ph.D. 1990, University of Iowa-Iowa City

**Zheng, Yi (1987)**

Professor of Electrical Engineering; Chairperson

B.E. 1982, Chongqing University; M.S. 1985, Ph.D. 1987, Iowa State University of Science and Technology

**Ziemer, Gladys L. (1968)**

Associate Professor of Health, Physical Education, Recreation, and Sport Science

B.S. 1963, Mankato State University; M.S. 1968, University of New Mexico

**Zniewski, Jan DeBerry (1989)**

Director of Planned Giving, Alumni and Foundation

B.A. 1959, Emporia State University

**Zong, Youpeng (1993)**

Associate Professor of Manufacturing Engineering

B.S. 1982, Southwest Petroleum Institute (China); M.S. 1984, East China Petroleum Institute; Ph.D. 1993, University of Houston-University Park

**Zuo, Jiping (1993)**

Associate Professor of Sociology and Anthropology

B.A. 1982, Chi Lanzhou University; M.A. 1988, Ph.D. 1991, University of Nebraska-Lincoln

## BUILDINGS AND PROPERTIES

The date after each building indicates the year the building was completed and occupied.

### CLASSROOM BUILDINGS

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

**Business Building (1968, 1994).** College of Business classrooms and offices, 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, psychology laboratories, communication disorders, guidance and counseling and student teaching are located in this building.

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

**Halenbeck Hall (1965, 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.

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

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

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

**National Hockey Center (1989).** Facility providing two olympic size hockey rinks for instruction, recreation and intercollegiate athletics.

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

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

**Stewart Hall (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 the campus used for the study of plant and animal life. Named by Zebulon Pike, who explored the area in 1805.

**George W. Friedrich Park.** This 50-acre tract one mile east of 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 a portion of 655 acres of state land placed in the custody of the university in 1970. The remainder of the property, adjoining Highway 10 east of the Minnesota Correctional Facility, is managed by the Minnesota DNR in cooperation with the University as the Sand Prairie Wildlife Management Area.

**Selke Field (1939, 1982).** Varsity athletic field containing a softball diamond, cinder track and football field, enclosed by a granite wall. Named for George A. Selke, president, 1927-1943.

**Talahi Woods.** This upper river terrace area is being preserved as an oak savannah and is the site of an active archeological dig of early Native American settlement.

### 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, 1992).** This building houses dining and recreation facilities and meeting rooms for stu-

dents 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 Library and Audiovisual Education, 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 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 office 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 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 the Buildings and Grounds Management and the Small Business Development Center.

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

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

**Whitney House (1956).** A former residence now used for College of Social Science and psychology department offices, this building was a gift to the university from the heirs of A. G. Whitney.



due financial obligations need to be credited at least three days before your earliest registration time in order to register on time.

#### **Day/Evening Parking**

University parking permits are required 7 a.m. - 7 p.m. in faculty/staff/student lots. Some pay-lot parking is also available. Information regarding parking permits and enforcement may be obtained by contacting the Public Safety Department (525 4th Ave. South, 320-255-3453).

#### **Daily Enforcement**

Parking is prohibited in areas specifically designated as delivery areas, service areas, "no parking" zones, "state vehicle parking" zones, fire zones, driveways, lawns, sidewalks, and other posted areas (handicapped zones, timed zones, fire lanes, and loading zones). The above are enforced each and every day of the year, regardless of the academic calendar. Persons park in university lots at their own risk and are therefore encouraged to lock their vehicles at all times.

#### **Americans With Disabilities Act (ADA)**

In compliance with federal and state laws and regulations, including the ADA, if you need a reasonable accommodation for a disability (e.g., wheelchair accessibility, interpreter, or an alternative non-print means of receiving information about the university) such an accommodation can be available upon advance request. Please contact Handicapped Student Services, (320) 255-4080.

## **UNIVERSITY PARKING OPERATIONS POLICIES**

### **St. Cloud State Parking**

St. Cloud State University maintains 25 parking lots for the use of faculty, staff, students and guests (permit required). Signs posted at the entrances to all university lots provide detailed information about parking rules, regulations and parking hours.

St. Cloud State University reserves the right to ticket, autoclamp, or tow at the owner's expense any vehicle in violation of established parking regulations. Persistent violators may have their parking privileges denied. Autoclamping will result after five (5) or more citations during and academic year (paid or unpaid fines).

All persons associated with St. Cloud State University will be held accountable for family members/friends' traffic violations incurred on St. Cloud State University property. Failure to pay fines may result in holding of grades, transcripts, and phone registration privileges. All past

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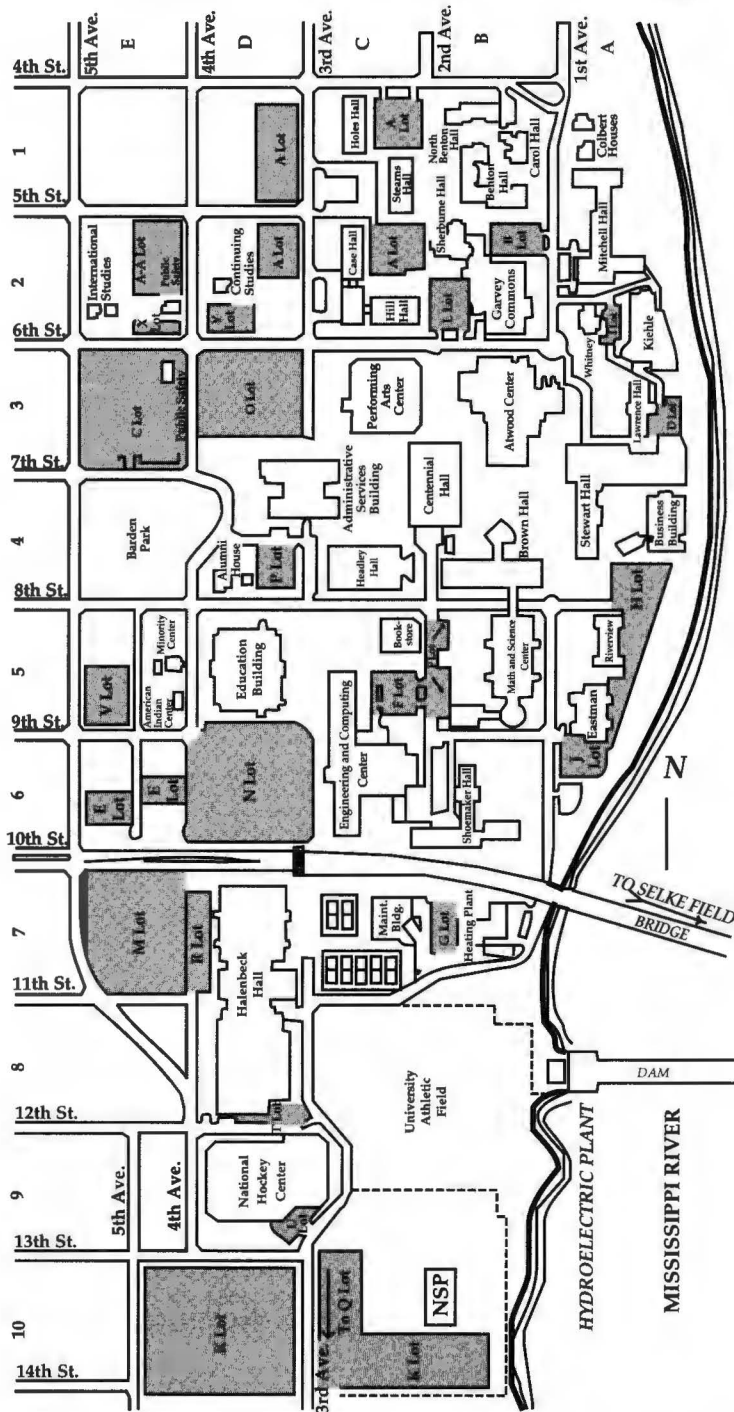


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118 Administrative Services Bldg.  
St. Cloud State University  
720 Fourth Avenue South  
St. Cloud, Minnesota 56301-4498  
Phone: (320) 255-2111



OFFICE OF RECORDS AND REGISTRATION  
ST. CLOUD STATE UNIVERSITY  
720 FOURTH AVENUE SOUTH  
ST. CLOUD, MINNESOTA 56301-4498

