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**MINNESOTA STATE
UNIVERSITY**
MANKATO

COMPUTER INFORMATION SCIENCE *College of Science, Engineering & Technology*

WHAT DEGREES AND PROGRAMS ARE OFFERED?

The department offers two different undergraduate majors. The Computer Information Technology (CIT) major is designed to prepare the student for a career in a typical corporate IT department. A non-computing minor must accompany this major. The Information Systems (ISYS) major combines Information Technology courses with courses from the College of Business. In addition to a strong technical computer foundation, this program provides significant knowledge of how businesses work.

The department also offers two graduate degrees. The Master of Science in Information Technology can easily be combined with either of the undergraduate majors as a fifth-year masters in which some of the courses taken during the student's senior year count toward both the undergraduate major and the MS in IT. A Professional Science Masters in Data Security and Risk Management is available on-line and is designed for practicing IT professionals with data security responsibilities.

CAREER OPPORTUNITIES?

CIT Degree: Students would be prepared for careers in programming, database technologies, information security and networking. Salaries are typically in the middle-\$50's for entry level positions. Students should have strong math and logic abilities, good oral and written communication skills.

ISYS Degree: Students would be prepared for careers in system analysis & design, project management, potential advancement to CIO positions. Salaries are typically in the middle-\$50's for entry-level positions. Students should focus on organizational and logic skills, and above-average oral and written communication skills.

EXAMINING THE QUALITY OF OUR PROGRAM

Faculty

Of the 11 faculty personnel, 10 have doctorate degrees. When adjunct faculty members are used to meet high student demand for some courses, only highly qualified instructors are hired. Faculty members are responsible for teaching each of our courses. Graduate assistants provide assistance to faculty in computer lab classes.

Facilities & Opportunities

Classes have a maximum of 25 or 30 students per class. We have an Active Learning Classroom that is designed to facilitate instruction where students work together in groups. Labs with a computer for each student are used for many of our classes. Study abroad opportunities are available through our relationship with HAN University in Arnhem, The Netherlands.

STUDENT EXPERIENCE/PROGRAM REQUIREMENTS

Faculty/student ratio approximately 1:28.5

Unique Program Components, Internships, Experiences

All students in the CIT and ISYS programs are required to complete internships. An internship coordinator is available to assist each student in finding an internship. The internship is a significant and valuable component of the degree.

Minnesota State Mankato provides several real-world employment opportunities on or adjacent to campus that can be used to satisfy the internship requirements for our majors. Work schedules for these paid internships are flexible and students work 20 hours per week during the academic year and full time during the summer. Industry partners that participate in these opportunities include Thomson-Reuters Publishing (via Project Maverick), Quad Graphics, and FPX Corporation. Class responsibilities are still the students' highest priority, but simultaneously satisfying the internship requirement and earning college expenses is a significant attraction.

Bureau 507 (B507) is an on-campus, student-run organization with faculty mentors that works with local industry and various organizations across campus to produce applications involving software and media to solve web presence or similar information technology needs. Students are involved in all aspects of this process including bidding, systems analysis, design, implementation, testing, delivery, and support.

Scholarships

The CIS Department offers approximately \$13,000 per year to eligible students.

HOW DO I PREPARE FOR THIS PROGRAM?

Students should focus on math and advanced math coursework in high school. Since both oral and written communication skills are important to most careers in this area, any courses in this area are also very beneficial. If computer courses are offered in the high school, take full advantage of these. Involvement in group activities is important to prove team-membership abilities. Any extra-curricular computer-related work or study is important. Leadership skills in groups or teams are important.

FOR MORE INFORMATION PLEASE CONTACT

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cset.mnsu.edu/departments/computer-information-science/

You are encouraged to visit the campus. To arrange for a visit, please call:
Office of Admissions: 507-389-1822; Tollfree: 800-722-0544

SAMPLE FOUR-YEAR CURRICULUM (COMPUTER AND INFORMATION TECHNOLOGY, BS)

First Year (Fall)	First Year (Spring)
MATH 112 College Algebra (4) ENG 101 Composition (4) CMST 100 Fundamentals of Communication (3) OR CMST 102 Public Speaking (3) OR CMST 212 Professional Communication & Interviewing (4) General Education Goal Area 3, Lab (3-4) FYEX First Year Seminar (1)	IT 210 Fundamentals of Programming (4) MATH 181 Intuitive Calculus (3) General Education Goal Area 5 (3-4) General Education Goal Area 6, 8, & Diversity (3-4) General Education Goal Area 11 (1)
Second Year (Fall)	Second Year (Spring)
IT 214 Fundamentals of Software Development (4) ENG 271W Technical Communication (4) General Education Goal Area 3 (3-4) General Education Goal Area 5, 7, & Diversity (3-4) General Education Goal Area 10 (3-4)	STAT 154 Elementary Statistics (3) IT 340 Introduction to Database Systems (4) IT 350 Information Security (4) Minor Course (3-4) General Education Goal Area 11 (1)
Third Year (Fall)	Third Year (Spring)
IT 380 Systems Analysis and Design (4) IT 320 Machine Structures and Operating Systems (4) IT 360 Introduction to Networking (4) Minor Course (3-4)	IT 440 Database Management Systems II (4) IT 202W Computers in Society (4) Minor Course (3-4) Elective if Needed (1-4)
Fourth Year (Fall)	Fourth Year (Spring)
IT 480 Software Quality Assurance and Testing (4) IT 497 Internship (1-3) IT Restricted Elective (4) Minor Course (3-4) General Education Goal Area 6 (3-4)	IT 483 Web Application and User Interface Design (4) IT 497 Internship (1-3) IT Restricted Elective (4) Minor Course (3-4) Elective if Needed (1-4)

SAMPLE FOUR-YEAR CURRICULUM (MANAGEMENT INFORMATION SYSTEMS, BS)

First Year (Fall)	First Year (Spring)
CMST 100 Fundamentals of Communication (3) ENG 101 Composition (4) MATH 112 College Algebra (4) FYEX First Year Seminar (1)	IT 210 Fundamentals of Programming (4) MATH 181 Intuitive Calculus (3) General Education Goal Area 5 (3-4) General Education Goal Area 6, 8, & Diversity (3-4) General Education Goal Area 11 (1)
Second Year (Fall)	Second Year (Spring)
IT 214 Fundamentals of Software Development (4) IT 340 Introduction to Database Systems (4) ACCT 200 Financial Accounting (3) ECON 207 Business Statistics (4)	IT 380 Systems Analysis and Design (4) ENG 271W Technical Communication (4) General Education Goal Area 3 & 10 (3-4) General Education Goal Area 5, 7, & Diversity (3-4)
Third Year (Fall)	Third Year (Spring)
IT 440 Database Management Systems II (4) IT 350 Information Security (3) CMST 212 Professional Communication & Interviewing (4) PHIL 224W Business Ethics (3)	IT 202W Computers in Society (4) IT 482 Human Computer Interaction (4) FINA 362 (3) OR MGMT 330 (3) OR MRKT 310 (3) ACCT 210 (3), OR BLAW 371 (3), OR MGMT 346 (3), OR MGMT 473 (3)
Fourth Year (Fall)	Fourth Year (Spring)
IT 480 Software Quality Assurance and Testing (4) IT 484 Software Engineering (4) IT 497 Internship (1-3) FINA 362 (3) OR MGMT 330 (3) OR MRKT 310 (3) ACCT 210 (3), OR BLAW 371 (3), OR MGMT 346 (3), OR MGMT 473 (3)	IT 497 Internship (1-3) FINA 362 (3) OR MGMT 330 (3) OR MRKT 310 (3) General Education Goal Area 3 (3-4) General Education Goal Area 11 (1) Electives (1-8)

For additional information about course requirements, please visit <https://www.mnsu.edu/academics/academic-catalog/>

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