

# Department of Computer Information Systems

**Lee Maier, Chair**  
**Business and Aerospace Building N333C**

The Department of Computer Information Systems offers the Master of Science in Accounting and Information Systems with information systems as the primary field. The department also offers courses for the Master of Business Administration degree. A minor in Information Systems is offered for students seeking a master's degree other than the M.B.A. The director of graduate business studies serves as advisor for the M.S. in Accounting and Information Systems.

Students are also encouraged to contact the CIS Department to discuss its program.

The prerequisites for a student seeking an M.S. in Information Systems are the same as those required for the M.B.A. degree plus instruction in international business. A recent graduate of an AACSB-accredited program would normally possess an adequate background in the business prerequisites.

A student electing Information Systems as a primary field may be required to complete additional prerequisites including Quantitative Methods Survey, Q M 6000; Business Policy, B AD 4980; and INFS 6010, Survey of Information Systems Issues. Completion of prerequisite courses does not reduce the hours necessary for completion of degree. Students without formal training or experience in computer programming are often encouraged to take some additional INFS courses including COBOL Applications, INFS 2720, and Advanced Programming, INFS 4760 (5760). A portion of these requirements may be satisfied in conjunction with the student's graduate studies.

To be admitted to the M.S. program (see page 25), a student must meet one of the following:

- GPA x 200 + GMAT = 950  
or Upper Division GPA x 200 + GMAT = 1,000
- International students must comply with the following provision: For undergraduate degrees from foreign institutions where a grade point average cannot be clearly established but where that work is thought to be equivalent to domestic grades of **B** or higher, admission eligibility may be determined by the **GMAT** score. A score of at least 450 is required for unconditional admission under such circumstances. Preparatory work taken in institutions with grading systems paralleling that of most United States institutions must conform to a **B** average.

## Requirements for the Master of Science Information Systems as Primary Field

### Required

INFS	6710	Systems Analysis
INFS	6790	Seminar in Database Management
Q M	6770	Computer-Based Decision Modeling
ACTG	6910	Accounting and Business Decisions (or approved substitute)
INFS	6980	Information Systems Practicum

### Electives

Six hours in INFS at the 6000 level  
Three hours of INFS or ACTG at the 5000 or 6000 level  
Three hours of approved electives at the 5000 or 6000 level  
Three hours in international/global at the 6000 level (may be satisfied by INFS 6750, Seminar in Global Information Systems)

### Additional Requirements

INFS 6980 must be passed with a grade of B- or higher with a maximum enrollment of two times.

The degree is to be completed within six years from the time of admission to the degree program.

No foreign language or thesis is required in the program.

No more than two (2) 5000-level classes may be taken as part of the degree program.

Information systems majors may meet the international/global requirement with any approved Jennings A. Jones College of Business course; however, the selection of INFS 6750, Seminar in Global Strategic Information Systems is encouraged.

Students planning to graduate in the minimum amount of time, including Summer attendance, should plan their program carefully in order to meet course sequencing and scheduling constraints. The Computer Information Systems Department can provide scheduling assistance.

A limited number of graduate assistantships are available on a competitive basis to qualified students.

Students with an undergraduate degree in information systems may not take INFS 6610 to satisfy either a required or elective course in the program.

## Courses in Information Systems [INFS]

**5200 (520) Microcomputer Database Applications.** Three credits. Prerequisites: 6 hours of information systems. Focus on designing, deploying, maintaining, and querying a database using appropriate hardware and software. In-depth study of e-commerce applications in a microcomputer environment.

**5760 (576) Advanced Programming.** Three credits. Prerequisite: INFS 2720. Functional programming experience in structured programming techniques; top-down design; advanced file handling and maintenance techniques to include sequential, indexed sequential, direct, and relative file organization; interactive, menu-driven applications; and uploading/downloading programs to a central site. Requires extensive laboratory work.

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- 5790 (579) Database Techniques.** Three credits. Prerequisite: 6 hours of information systems. Fundamental concepts: conventional data systems, integrated management information systems, data base structure systems, data integration, complex file structure, online access systems. Emphasis on total integrated information systems data base and data base management languages.
- 5830 (583) Database Design and Application Development.** Three credits. Prerequisite: 6 hours of information systems. Operational database design and implementation. Includes the development of interfaces that enable end users to query the database contents and transform data into information. Requires each student to participate fully in a group project.
- 5900 (590) Seminar in Data Communications.** Three credits. Prerequisite: 6 hours of information systems. Current topics in the field of data communications.
- 6010 (601) Survey of Information Systems Issues.** Three credits. Topics include Systems Development Life Cycle (SDLC), Data Resource Management, and Information Resource Management. Incorporates various microcomputer applications software packages. **May not be used for elective credit in graduate business degree programs.**
- 6610 (661) Information Systems Management and Applications.** Three credits. Prerequisites: Graduate standing and INFS 3100 or 6010. Focuses on utilization of computing resources in managerial context. Students will develop an understanding of issues and implications of information resources and end-user computing as well as develop skills in application of these concepts in a problem-solving oriented microcomputer system environment. **NOT open to students with an undergraduate degree in information systems.**
- 6710 (671) Systems Analysis.** Three credits. Prerequisite: INFS 6610 or an undergraduate major or minor in Information Systems or permission of instructor. Practical explanation of the total systems concept and a knowledge of systems development. Addresses the entire development cycle including analysis, design, and implementation.
- 6720 (672) Seminar in Decision Support Systems.** Three credits. Prerequisite: INFS 3100 or 6010. Examines the broad area of management support systems. Concepts and issues surrounding decision support systems, expert systems, and executive information systems. Software packages used to solve application problems chosen from appropriate business areas.
- 6740 (674) Strategic Information Systems.** Three credits. Prerequisite: 6 graduate hours of information systems. Focuses on the use of information system (IS) and information technology (IT) in the strategic management process in business organizations. Emphasis on the strategic view of IS and IT and their impact on organizational strategy. Use of IS and IT to support prominent generic strategy models and how IS and IT aid applying the principles of those generic strategic models.
- 6750 (675) Seminar in Global Strategic Information Systems.** Three credits. Prerequisite: INFS 3100 or 6010 or permission of instructor. Examines the managerial, operational, and strategic implications of information and communication technology in the global context. Particular emphasis on the strategic dimension.
- 6790 (679) Seminar in Database Management.** Three credits. Prerequisite: INFS 6610 or an undergraduate major or minor in Information Systems or approval of instructor. Advanced topics in computer-related information systems as found in current literature and practical application. Advanced information structures and data management concepts applied in the design of computer-based information systems. Additional topics include data structures as applied to distributed processing systems, computer system component resource allocation, and data communication systems design. Significant computer application projects required.
- 6880 (688) Seminar in Electronic Commerce.** Three credits. Prerequisite: INFS 3100 or 6010 or permission of instructor. The business and technical implications of electronic commerce from the perspective of the manager of information technology. Introduces the technical, business, managerial, and social issues associated with electronic commerce systems. Addresses the role of information technology in the development of electronic commerce applications and considers the ethical and legal implications of electronic commerce.
- 6900 (690) Business Data Communication Management.** Three credits. Prerequisite: INFS 3100 or 6010 or permission of instructor. Management and use of data communications technologies to support the operations of businesses. Practical experiences in the use of data communications technologies, such as local area networks, the Internet, distributed computing, and distributed databases.
- 6980 (698) Information Systems Practicum.** Three credits. Prerequisites: 6 hours of information systems. Emphasizes communication skills, creative thinking, problem-solving, and professional responsibility from a leadership perspective. Includes the discussion of information systems assessment in organizations. Capstone course for Information Systems majors and must be taken the last semester prior to graduation.
- 6990 (699 A, B) Independent Research in Information Systems.** **6991** Three credits. Prerequisites: Graduate standing and consent of department chair. Provides individual research, readings analysis, or projects in contemporary problems and issues in a concentrated area of study under the direction of an appropriate faculty member. Maximum credit applicable toward degree may not exceed six credits.

## Courses in Quantitative Methods [Q M]

- 6000 (600) Quantitative Methods Survey.** Three credits. Quantitative methodologies to assist in the decision-making process. Emphasis on applied statistics and decision sciences topics that are practical, useful, and of wide application for business analysis. **May not be used for elective credit in graduate business degree program.**
- 6770 (677) Computer-Based Decision Modeling.** Three credits. Prerequisite: Q M 3620 or 6000. Advanced techniques in quantitative methods. Modeling and optimization techniques. Computer applications emphasized.
- 6960 (696) Statistical Methodology and Analysis.** Three credits. Prerequisite: Q M 3620 or 6000. Descriptive and inferential statistical concepts with the use of expert systems to assist in the selection of appropriate design and methodology. Utilization of common packages for problem solution and analysis.