

INFORMATION SYSTEMS

Program of Study

Individuals in all areas of private and public enterprise rely on information systems for communication, planning, control and decision support. The advanced knowledge provided by graduate-level information systems programs is needed across a wide range of commercial, on-profit and government settings. While the market-place demand for students with graduate course work in information systems is already high, the demand for such skills is predicted to steeply increase in the years ahead.

The Master of Science in Information Systems program focuses on technical, managerial and policy issues associated with constructing and managing computer-based information systems for modern organizations. The objectives of this program are to meet the growing demand in society for graduates with high-level information system skills and provide a path for women and men from diverse fields to rapidly transition to information system career paths by providing them with foundation graduate level courses in information systems.

Similar to an MBA or Law degree, this program is explicitly designed to accommodate students from wide ranging undergraduate degree backgrounds.

The Master of Science in Information Systems (MSIS) consists of 30 credits, all earned in course work. The program consists of five three-credit required core courses and a minimum of fifteen additional credits from a list of elective courses approved for the program drawn from a range of disciplines.

The five required courses are:

- SIE 505 - Formal Foundations of Information Systems (3 credits)
- SIE 507 - Information Systems Software Engineering (3 credits)
- SIE 525 - Information Systems Law (3 credits)
- SIE 550 - Engineering Databases and Information Systems (3 credits)
- SIE 515 - Human Computer Interaction (3 credits)

Elective courses that total to at least fifteen credits must be approved in advance by the MSIS Graduate Coordinator and Steering Committee. Students should NOT assume that any combination of elective courses satisfies the degree requirements. A logical concentration or course combination as assessed by the Steering Committee in line with the career aspirations of the student is expected. Courses on the current pre-approved list of elective courses include information and technology courses taught within Business, Communication, Computer Science, Education, Electrical and Computer Engineering, Interdisciplinary, New Media, Public Administration, and Spatial Information Science and Engineering.

Lab Facilities

Students have access to state-of-the-art computer labs and software. MSIS students are also provided with shared work space and a student lounge in Room 137 Boardman Hall. The department maintains a range of database, GIS, statistical and programming software for teaching and research support. Compilers and software development environments are available for common programming languages including C++, and Java, fast prototyping environments such as Visual Basic, and Prolog. The department has educational site licenses for Oracle, ESRI software, Intergraph GIS and CAD software, Smallworld GIS, Idrisi and Mapinfo.

Financial Aid

For general information on the range of grants, loans and scholarships available from Federal and other sources for graduate students, contact the Office of Student Financial Aid. The department provides no assistantships for non-research based degrees. However, university wide assistantships and scholarships may be available. All full-time students are eligible to apply.

Applying

Applications are processed through the Graduate School on a rolling basis and no strict deadlines apply. Those applying for campus-wide research assistantships or scholarships should complete their application packets by January 1 for September admission.

**Correspondence and
Information**

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Graduate Faculty

M. Kate Beard-Tisdale, Ph.D. (Wisconsin, 1988), Professor. Geographic information systems, spatial analysis, digital libraries.

Max Egenhofer, Ph.D. (Maine, 1989), Professor. Geographic database systems, spatial reasoning, GIS user interface design, ubiquitous spatial computing.

Nicholas Giudice, Ph.D. (Minnesota, 2004), Assistant Professor. Neurocognitive engineering, multimodal spatial learning, human computer interaction.

Reinhard Moratz, Ph.D. (Universitat Bielefeld, 1992), Associate Professor. Spatial knowledge representation in cognitive systems, qualitative spatio-temporal representation, human-robot interfaces, integration of spatial perception and description.

Silvia Nittel, Ph.D. (Zurich, 1994), Assistant Professor. Spatial database management systems, mobile object systems, heterogeneous information systems, high performance architectures.

Harlan J. Onsrud, J.D. (Wisconsin, 1982), Professor. Computer and information systems law, cadastral systems, boundary law, and environmental law.

Michael F. Worboys, Ph.D. (Birmingham England, 1980), Professor. Geographic information representation and reasoning, uncertainty, spatio-temporal information, human interaction issues.