Master of Science in Information Technology and Management

36 semester credit hours minimum

Faculty


**Clinical Professors**: Kutsal Dogan, William Hefley, Peter Lewin, Radha Mookerjee, Daniel Rajaratnam, Rajiv Shah

**Associate Professors**: Jianqing Chen, Xianjun Geng, Dorothée Honhon, Surya N. Janakiraman, Amit Mehra, Young U. Ryu, Gil Sadka, Harpreet Singh

**Clinical Associate Professors**: Sonia Leach, Carolyn Reichert, Avanti P. Sethi, Kelly Slaughter, Mark Thouin

**Assistant Professors**: Mehmet Ayvaci, Atanu Lahiri, Shaojie Tang, Shengqi Ye, Zhe (James) Zhang

**Clinical Assistant Professors**: Judd Bradbury, Maria Hasenhuttl, Jeffery (Jeff) Hicks, Ravi Narayan, Dawn Owens, Nassim Sohaee, Russell Torres

**Senior Lecturers**: Monica E. Brussolo, Carol Flannery, Prithi Narasimhan, Kashif Saeed, Luell (Lou) Thompson

Degree Requirements

The Master of Science in Information Technology Management (MS ITM) is a minimum 36 semester credit hours STEM (Science, Technology, Engineering and Mathematics) degree program that prepares students to better understand the complex world of Information Technology, its management, and issues that occur at the interface between IT and business.

Course requirement consists of core courses, IT elective courses, and free elective courses. Core courses provide foundational knowledge regarding information technology and management practices and serve as the foundation for understanding the complex issues that occur at the interface between IT and business. IT elective courses provide students with opportunities to learn specialized knowledge in one or more focused tracks and free elective courses enable students to select courses that maximize their individual educational and professional goals. Detailed course requirements for the MS ITM degree may be found in the following section.

To apply for this degree program, an undergraduate degree is required (all majors are considered).
Students must maintain a 3.0 grade-point average (GPA) in both core courses and in aggregate courses to qualify for the MS degree.

Prerequisite

Students pursuing the Master of Science in Information Technology Management degree program are required to complete one semester credit hour of MIS 6102 Professional Development course or equivalent. Degree credit is not earned for program prerequisites, however, the grade achieved in prerequisites will count toward the student's grade-point average (GPA). All program prerequisites must be satisfied within the first 12 semester credit hours of graduate study as a degree-seeking student.

Course Requirements

Core Courses: 18 semester credit hours

Select the following three courses (9 semester credit hours).

- **MIS 6323** Object Oriented Programming
- **MIS 6326** Data Management
- **MIS 6308** Systems Analysis and Project Management

And choose three courses listed below (9 semester credit hours).

- **ACCT 6305** Accounting for Managers
- **ENTP 6370** Innovation and Entrepreneurship
- **FIN 6301** Financial Management
- **MECO 6303** Business Economics
- **MKT 6301** Marketing Management
- **OB 6301** Organizational Behavior
- **OPRE 6301** Statistics and Data Analysis
- **OPRE 6302** Operations Management

Electives: 12 semester credit hours

Choose 12 semester credit hours from courses listed below that have an MIS prefix, excluding MIS 6204 and MIS 6320.

- **MIS 6302** Managing Digital Strategy
- **MIS 6309** Business Data Warehousing
- **MIS 6316** Data Communications
Free Electives: 6 semester credit hours

Any course from the set of IT electives listed above may be used as a free elective. In addition, except for MIS 6204 and MIS 6320, students may choose any graduate level course offered within JSOM, including a faculty led international trip as a free elective course.

Information Technology Management Tracks

The MS ITM degree program offers opportunities for students to focus in a specific track (optional) to obtain an in-depth knowledge in a specific area depending on their interests.
The **Enterprise Systems** track is recommended for students interested in developing and managing large-scale applications and IT infrastructure.

- **MIS 6309** Business Data Warehousing
- **MIS 6319** Enterprise Resource Planning
- **MIS 6332** Advanced ERP: Configurations
- **MIS 6338** Accounting Systems Integration and Configuration
- **MIS 6369** Supply Chain Software
- **MIS 6378** Enterprise Systems and CRM

The **Business Intelligence and Analytics** track is recommended for students interested in managing large-scale data and analyzing them to develop sound business strategies.

- **MIS 6309** Business Data Warehousing
- **MIS 6324** Business Analytics with SAS
- **MIS 6334** Advanced Business Analytics with SAS
- **MIS 6344** Web Analytics
- **MIS 6345** High Performance Analytics
- **MIS 6373** Social Media and Business
- **MIS 6380** Data Visualization
- **OPRE 6301** Statistics and Data Analysis

The **Cyber Security Management** track is recommended for students interested in cyber security risk management.

- **MIS 6330** Information Technology Security
- **MIS 6333** Digital Forensics and Incident Management
- **MIS 6337** Information Technology Audit and Risk Management

The **IT Consulting and Services Management** track is recommended for students interested in IT consulting and project management.

- **MIS 6302** Managing Digital Strategy
- **MIS 6360** Agile Project Management
- **MIS 6364** Enterprise IT Architecture
- **MIS 6372** IT Services Management
- **MIS 6375** Technology and New Product Development
- **BPS 6360** Management and Organizational Consulting: Theory and Practice

The **Healthcare Systems** track is recommended for students interested in managing IT in the healthcare domain.

- **HMGT 6320** The American Healthcare System
- **HMGT 6327** Electronic Health Records Applications
- **MIS 6317** Healthcare Informatics
- **MIS 6324** Business Analytics with SAS
- **MIS 6330** Information Technology Security

**Graduate Certificate in Healthcare Information**
Technology
9 semester credit hours

Faculty

Professor: Indranil R. Bardhan
Assistant Professor: Mehmet Ayvaci

Overview
The Graduate Certificate in Health Information Technology emphasizes practical concepts in healthcare IT and hands on experience gained using electronic medical records (EMR) software. The focus will be on identification and understanding the key information required for managing and working with healthcare information systems. It also demonstrates the use of analytics and software tools related to healthcare information to develop sound healthcare decisions, particularly the core functionalities of the EMR software platform, including how to support clinical information workflows in a paperless environment, and the interconnectivity with other clinical and business systems.

Courses required for graduate certificate in health information technology (9 semester credit hours)

- HMGT 6323 Healthcare Informatics
- HMGT 6327 Electronic Health Records Applications
- HMGT 6334 Healthcare Analytics

Graduate Certificate in Enterprise Systems
9 semester credit hours

Faculty

Assistant Professor: Atanu Lahiri
Clinical Assistant Professor: Judd Bradbury
Senior Lecturers: Eugene (Gene) Deluke, Mary Beth Goodrich, Luell (Lou) Thompson

Overview
The Graduate Certificate in Enterprise Systems emphasizes theoretical concepts in enterprise resource planning and hands on experience using SAP software. It provides broad exposure to various SAP functional modules such as sales and distribution, supply chain management, customer relationship management, procurement, human capital management, accounting, and data warehousing. Furthermore, the certificate program provides students with an opportunity to get an in-depth
knowledge of two of these modules.

MIS 6319 Enterprise Resource Planning

and choose two of the courses listed below:

MIS 6309 Business Data Warehousing
MIS 6332 Advanced ERP: Configurations
MIS 6338 Accounting Systems Integration and Configuration
MIS 6369 Supply Chain Software
MIS 6378 Enterprise Systems and CRM

Graduate Certificate in Business Intelligence and Data Mining

12 semester credit hours

Faculty

Professors: Huseyin Cavusoglu, Syam Menon, John J. Wiorkowski, Zhiqiang (Eric) Zheng

Clinical Professors: Kutsal Dogan, Ching-Chung Kuo, Radha Mookerjee

Associate Professors: Jianqing Chen, Xianjun Geng

Clinical Associate Professors: Sonia Leach, Avanti P. Sethi

Assistant Professors: Atanu Lahiri, Shouqiang Wang, Zhe (James) Zhang

Clinical Assistant Professors: Judd Bradbury, Ravi Narayan, Nassim Sohaee, Russell Torres

Senior Lecturers: Monica E. Brussolo, Carol Flannery, Kashif Saeed

Overview

The Graduate Certificate in Business Intelligence and Data Mining provides students with an understanding of how to analyze large complex data sets in order to solve business problems. It emphasizes theoretical concepts and clinical knowledge associated with the design, delivery and use of business intelligence and data mining techniques in organizations.

Required courses: 12 semester credit hours

MIS 6309 Business Data Warehousing (ITM Majors Only)

or MIS 6320 Database Foundations (non-ITM Majors Only)

MIS 6324 Business Analytics with SAS

MIS 6334 Advanced Business Analytics with SAS