Master of Science in Information Technology and Management

36 semester credit hours minimum

Faculty


**Professor Emeritus:** Dale Osborne


**Visiting Clinical Professor:** Kyle Edgington

**Associate Professors:** Nina Baranchuk, Norris Bruce, Huseyin Cavusoglu, Jianqin Chen, Zhonglan Dai, Rebecca Files, Xianjun Geng, J. Richard Harrison, Dorothée Honhon, Kyle Hyndman, Surya N. Janakiraman, Robert L. Kieschnick Jr., Lívia Markóczy, Syam Menon, Toyah Miller, Alp Muharremoglu, Ramachandran (Ram) Natarajan, Valery Polkovnichenko, Orlando C. Richard, Young U. Ryu, Gil Sadka, Jane Salk, Harpreet Singh, David J. Springate, Upender Subramanian, Kelsey D. Wei, Jun Xia, Ying Xie, Yexiao Xu, Alejandro Zentner, Yuan Zhang, Feng Zhao, Yibin Zhou

**Clinical Associate Professors:** Sonia Leach, Carolyn Reichert, Avanti P. Sethi, Kelly Slaughter, James Szot, Mark Thouin, John McClain Watson

**Assistant Professors:** Mehmet Ayvaci, Emily Choi, Bernhard Ganglmair, Atanu Lahiri, Sheen Levine, Bin Li, Jun Li, Meng Li, Ningzhong Li, Xiaolin Li, Naim Bugra Ozel, Arzu Ozoguz, Anyan Qi, Alejandro Rivera Mesias, Alessio Saretto, Serdar Simsek, Gonca P. Soysal, Shaojie Tang, Christian Von-Drathen, Malcolm Wardlaw, Han (Victor) Xia, Steven Xiao, Shengqi Ye, Nir Yehuda, Jieying Zhang, Zhe (James) Zhang, Xiaofei Zhao
Clinical Assistant Professors: Shawn Alborz, Athena Alimirzaei, Moran Blueshtein, Judd Bradbury, John Gamino, Ayfer Gurun, Maria Hasenhuttl, Julie Haworth, Jeffery (Jeff) Hicks, Kristen Lawson, Vance Lewis, Liping Ma, Ravi Narayan, Dawn Owens, Parneet Pahwa, Anastasia V. Shcherbakova, Jeanne Sluder, Nassim Sohaee

Visiting Assistant Professor: Lale Guler

Senior Lecturers: Arthur M. Agulnek, Semiramis Amirpour, Frank Anderson, Anindita Bardhan, Daniel Bochsler, Tiffany A. Bortz, Richard Bowen, Monica E. Brussolo, George DeCourcy, Eugene (Gene) Deluke, Alexander Edsel, Amal El-Ashmawi, Carol Flannery, Mary Beth Goodrich, Thomas (Tom) Henderson, Jennifer G. Johnson, Jackie Kimzey, Chris Linsteadt, Michele Lockhart, Joseph Mauriello, Victoria D. McCrady, Edward Meda, Prithi Narasimhan, Madison Pedigo, Matt Polze, James Richards, Debra Richardson, Margaret Smallwood, Steven Solcher, David Spivey, Luell (Lou) Thompson, Amy L. Troutman, Jeremy Vickers, Robert Wright, Kathy Zolton, Hubert Zydorek

Degree Requirements

The Master of Science in Information Technology Management (MS ITM) degree requires a minimum of 36 semester credit hours, consisting of business core courses, IT core courses, IT elective courses, and free electives. The business core courses are designed to provide incoming students with the context to better appreciate and understand the complex issues that occur at the interface between IT and business.

The IT core courses cover the essentials of IT knowledge and the IT elective courses provide in-depth knowledge of the technology and technology management issues. In addition, students may choose approved electives that maximize their individual educational and professional goals. The program also offers opportunities for students to concentrate in specific tracks such as Enterprise Systems, Business Intelligence and Analytics, IT Consulting and Services Management, Healthcare Systems, and Cybersecurity Management, depending on their interests. Students can contact the advising office for the recommended courses for these tracks.

Students must maintain a 3.0 grade-point average (GPA) in both business core courses and in aggregate courses to qualify for the MS degree.

Course Requirements

Business Core Courses: minimum of 9 semester credit hours from the following

- ACCT 6305 Accounting for Managers
- FIN 6301 Financial Management
- MECO 6303 Business Economics
- MKT 6301 Marketing Management
- OPRE 6301 Quantitative Introduction to Risk and Uncertainty in Business
- OPRE 6302 Operations Management
OB 6301 Organizational Behavior

IT Core Courses: 12 semester credit hours

MIS 6316 Data Communications
MIS 6323 Object Oriented Programming
MIS 6326 Data Management
MIS 6308 Systems Analysis and Project Management

IT Electives: 9 semester credit hours

Choose 9 semester credit hours from the following list of courses that have an MIS prefix, excluding MIS 6204 and MIS 6320.

MIS 6302 Information Technology Strategy and Management
MIS 6309 Business Data Warehousing
MIS 6311 Cybersecurity Fundamentals
MIS 6317 Healthcare Informatics
MIS 6319 Enterprise Resource Planning
MIS 6324 Business Analytics with SAS
MIS 6330 Information Technology Security
MIS 6332 Advanced ERP: Configurations
MIS 6334 Advanced Business Analytics with SAS
MIS 6338 Accounting Systems Integration and Configuration
MIS 6344 Web Analytics
MIS 6345 High Performance Analytics
MIS 6346 Big Data Analytics
MIS 6356 Business Analytics with R
MIS 6357 Advanced Business Analytics with R
MIS 6360 Agile Project Management
MIS 6363 Cloud Computing
MIS 6364 Enterprise IT Architecture
MIS 6369 Supply Chain Software
MIS 6372 IT Services Management
MIS 6373 Social Media and Business
MIS 6378 Enterprise Systems and CRM
MIS 6380 Data Visualization
MIS 6V98 Information Systems Internship

Free Electives: 6 semester credit hours
Any course from the set of IT electives may be used as a free elective. In addition, any course from the set of business core courses, or any other graduate level business course, except MIS 6204 and MIS 6320 may be used as a free elective.

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 Health Informatics
HMGT 6327 Electronic Health Records
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.

The Graduate Certificate in Enterprise Systems is awarded after completion of **MIS 6319** Enterprise Resource Planning, and 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:** John J. Wiorkowski, Zhiqiang (Eric) Zheng

**Clinical Professors:** Kutsal Dogan, Radha Mookerjee

**Associate Professors:** Huseyin Cavusoglu, Jianqing Chen, Xianjun Geng, Syam Menon

**Clinical Associate Professor:** Sonia Leach, Avanti P. Sethi

**Assistant Professors:** Atanu Lahiri, Zhe (James) Zhang

**Clinical Assistant Professor:** Judd Bradbury, Nassim Sohaee

**Senior Lecturers:** Monica E. Brussolo, Carol Flannery
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 Intelligence with SAS
- **OPRE 6301** Quantitative Introduction to Risk and Uncertainty in Business

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