

# MGIS: MANAGEMENT INFO SYST

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## **MGIS 1998 Individualized Studies in Management Information Systems (MGIS) (1-8 Credits)**

Students have the opportunity to develop individualized studies with their mentor in Management Information Systems (MGIS). Registration for this class must be approved by the student's mentor.

## **MGIS 2000 The Internet of Things (IoT) Essentials (4 Credits)**

The course focuses on the next evolution of the Internet - Internet of Things (IoT). Along with Web of Things (WoT), Web 3.0 and Machine to Machine (M2M), IoT brings innovative business strategies and technology transformations to the society and to our life. The goal of the course is to look top-down as well as bottom-up, to provide students with an understanding of the IoT and other related technologies. The student will research compare and summarize at a variety of real-world application scenarios of the IoT and diverse implemented applications. This allows students to understand what IoT technologies are used for, and what is required to build appropriate IoT solutions.

**Attributes:** Liberal

## **MGIS 2998 Individualized Studies in Management Information Systems (MGIS) (1-8 Credits)**

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## **MGIS 3000 Business Intelligence: Practices, Technologies, Management (4 Credits)**

The primary objective of this advanced course is to introduce the students to concepts, practices, and technologies called Business Intelligence, in some circles also referred as Business Analytics. Other objectives are to provide students with details and knowledge in applications of BI, data warehousing, data mining, Web intelligence/ Web analytics, knowledge management, predictive analysis, and other practical benefits of business related intelligent systems.

**Attributes:** Liberal

## **MGIS 3005 The Business of the Internet of Things (IoT) (4 Credits)**

The course focuses on a new emerging topic - the Internet of Things (IoT). Along with Web of Things (WoT), Web 3.0, Human to Machine (H2M), Machine to Machine (M2M), Cloud and Fog computing, the IoT brings innovative transformations in corporate strategies, new business models, to the society and our life. With a case based approach, the course provides students with a comprehensive understanding of the Business of IoT and other related technologies. The student will research, analyze, and justify a variety of real-world IoT applications of connected devices, remote operations, predictive analytics and preventive maintenance based on proven use-cases adopted globally. This will allow students not only to understand what IoT technologies are used for today, but also what is required to plan, and suggest framework for implementing IoT solutions.

**Attributes:** Liberal

## **MGIS 3010 Management Information Systems (4 Credits)**

In this course, students explore the impact of advances in information technology in the context of organizational decision making and the potential of an effective management information system to contribute to organizational learning, to be a source of competitive advantage, and to assist an organization competing in a global arena. By exploring systems from a managerial and organizational perspective, students will develop the capacity to examine the interactions among people, technology, and processes and recommend solutions to complex business problems. Prerequisite (must complete before registering): Principles of Management (MGMT 1005), or equivalent. Students should have a basic understanding of computers along with a fundamental understanding of computer use in an organizational environment. In addition, students should have an understanding of basic management principles. This can be gained through a course such as Management Principles or equivalent knowledge through professional experience. This course was previously SMT-273754 Management Information Systems. Cross-listed with BUSN 3122.

## **MGIS 3996 Special Topics in MGIS (2-8 Credits)**

**Attributes:** Liberal

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## **MGIS 4005 Information Security & Policy (4 Credits)**

This course focuses on comprehensive overview of securing computer operations, information security planning, and managing information security programs. Topics include general security concepts; operational, physical, infrastructure, and wireless security; cryptography and PKI infrastructure; authentication, remote access, IDS, protection mechanisms, and network security; personnel and security; planning for contingency, developing information security policy and programs; identifying, assessing and controlling the risk; security management models and practices; professional ethics, current law, regulations, and important professional organizations related to information security. Assumptions about surrounding courses: Students should have an understanding of computer networks, database systems and database administration concepts, and web technologies and related applications. In addition, students should have an understanding of basic management principles. Notes: Students should select either this course, or Information Assurance as part of their degree program as there is substantial overlap in the course curriculums.

**Attributes:** Liberal

**MGIS 4010 Information Technology for Management (4 Credits)**

In this course, students will explore the impact of information technology on the business environment, focusing on how the organizational success and economic opportunities are supported or provided by IT-enabled capabilities. Students will analyze the use of the latest information technologies for achieving managerial goals and strategic business objectives. Students will examine how IT-business strategic alignment, operations, collaboration, performance, productivity, growth and career success are driven by and dependent on IT-capabilities. By exploring emerging information technologies, students will examine the framework -Operating model, Enterprise architecture, IT engagement model- and recommend appropriate IT solutions to complex business problems. Assumptions about surrounding courses: Students should have an understanding of computers along with a fundamental understanding of computer use in an organizational environment. In addition, students should have an understanding of management principles. Notes: Student may select either this course, or Management Information Systems as part of their degree program as there is some overlap in the course curriculums.

**MGIS 4015 Project Management in IT / IS (4 Credits)**

Although Project Management has been a well-established field for many years, managing information technology projects requires specific knowledge and information that go beyond standard practices. This course provides students with a comprehensive understanding of the project life cycle, organizational, behavioral, management concerns, project management tools, and information technology context in a business environment. Students will learn and practice different suggestions on how good project management and effective use of software applications can help them manage projects, especially information technology projects. Students will have acquired project management knowledge that can be helpful in thinking about, understanding, discussing, and managing IT/IS projects. Prerequisites: Management Principles (or equivalent experience in management); Organizational Behavior (or significant experience in management); core IT/IS courses in computers, programming, networking, and systems analysis and design. Notes/Comments: Students can only take one of the project management courses: MGIS 4015 Project Management in IT/IS, INFT 3035 Project Management, or MGMT 4030 Project Management for Business.

**MGIS 4020 IT Strategy and Innovations (4 Credits)**

This course provides knowledge and competency-based framework related to Information Technology (IT) strategic planning, digital transformations and innovations. The curriculum is designed for IT/IS professionals to be prepared for strategic planning, innovative IT designing, and suggesting digital driven transformations. The focus of the course is on the role of integrated cloud and mobile solutions in modern organizations, and how IT leaders design and implement IT-dependent strategic initiatives. The course learning activities focus on the impact of IT on operating business models and how IT strategy should be aligned with the business strategy and decision-making practices; the impact of IT architecture to the organizational Socio-Technical System, and the importance of designing and building innovative, reliable and secure operational enterprise systems; the significance of IT leadership and the importance of fostering key IT capability and linking IT values to business metrics. Appropriate as a capstone course for IT/IS students or similar computing discipline concentrations. Recommended for junior- or senior-year students. Prior to taking this course students should have taken Introduction to Computers / Networks or equivalent, familiarity with the core concepts of computers and networking; an understanding of hardware and operating systems, basic applications and security. This knowledge can be gained through the listed prerequisite course(s) or through professional experience.

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