MSMIS Core Course Learning Outcomes
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MIS-7101 Information Systems and Technology
MIS-7201 Systems Analysis and Design
MIS-7401 Database Development and Applications
MIS-7601 IT Infrastructure
MIS-7700 ERP Systems
MIS-8979 Advanced Information Systems

MIS-7101 Information Systems and Technology
Prepares students to participate in an organization's information systems and technology decisions. Emphasizes the strategic value of information resources, alignment of IT and business strategies, the role of the IT department in an organization, performance and process improvements through information systems, and ethical use of information resources.

Course Learning Outcomes:
Upon completing the course, students will be able to:
1. Apply a framework and process for aligning and organization's IT objectives with business strategy.
2. Defend the strategic value of information resources for an organization.
3. Participate in an organization's information systems and technology decision-making processes.
4. Identify ways information systems & technology may improve an organization's performance,
   including improving organizational processes, decision-making, collaboration, and personal productivity.
5. Define what a manager should be able to expect from an IT department in an organization.
6. Build a business case for IT, addressing key IT acquisition decisions such as make/buy; outsource/insource; project management.
7. Apply a framework for evaluating information-related ethical dilemmas commonly faced by managers.

MIS-7201 Systems Analysis and Design
The course examines Systems development life cycle; analysis and design techniques; information systems planning and project identification and selection, requirements collection and structuring, process modeling, conceptual and logical data modeling, database implementation, data management, design of the human computer interface (HCI), System implementation and operation, system maintenance, and change management implications of systems. Students will use current methods and tools such as

business process modeling, rapid application development, agile methodologies, object-oriented analysis and design, and visual development.

Course Learning Outcomes:
Upon successful completion of this course the student will be able to:
- define and document business processes related to the organization's information and enterprise systems ○ define and document an existing information system;
- analyze an existing information system and specify the requirements for a replacement system;
- use Computer-Aided Software Engineering (CASE) tools to assist in Systems Analysis;
- understand alternative approaches to systems development;
- understand the purpose, context and commonly expected "deliverables" of systems analysis; and
- evaluate problems in the planning and implementation of organizational change as related to an organization's information and enterprise systems
- effectively communicate with project team members, client, users, and others associated with development, operation, and maintenance of systems

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MIS-7401 Database Development and Applications
Introduces students to Database Theory, Database Management Systems (DBMS), and Database Applications. It has a theoretical and a practical component. Student will deploy at least two commercial DBMS, describe, design, create, and implement a database structure, and access it from a front-end client application that they develop and deploy themselves.

LEARNING OBJECTIVES
　　Upon successful completion of this course, students should be able to:
- · Contrast and compare the different database models.
- · Use the relational database model.
- · Design, normalize, and implement database structures.
- · Compare and deploy at least two widely-accepted DBMS.
- · Interpret and use the SQL language.
- · Develop a front-end application that can access a backend DBMS.
- · Discuss and resolve issues arising from concurrent use of databases, database security, global databases, and privacy.

MIS-7601 IT Infrastructure
Explores topics related to both computer and systems architecture and communication networks, with an overall focus on the services and capabilities that IT infrastructure solutions enable in an organizational context.

EXPECTED STUDENT OUTCOMES
Upon completion of this course, students will be able to:
- Describe the role of various types of computers in a communication network.
- Explain the hybrid TCP/IP-OSI framework and the functions of the various layers of the framework, and identify relevant standards and protocols for each layer.
- Identify network security threats and appropriate countermeasures.
- Distinguish between network management and systems administration, and describe the relevant functions for each.
- Apply telecommunications concepts to various business situations and recommend appropriate networking solutions.

MIS-7700 ERP Systems
Focuses on integrating business processes in an enterprise resource planning (ERP) system. Students will experience both the end-user and configuration perspectives of an ERP system implementation.

EXPECTED STUDENT OUTCOMES
- Communicate the basic structure of an Enterprise Resource Planning system.
- Communicate typical integrated business processes in an ERP, such as procurement, production, and fulfillment.
- Perform common business transactions as an end-user in an ERP system.
- Configure an ERP system for specific business processes.
- Contribute as a member of an ERP implementation or configuration team.

MIS-8979 Advanced Information Systems
Covers current topics in MIS based on emerging technologies including issues related to several areas such as business environment, technology, globalization, politics, ethics, legal, regulatory, and demographic diversity. The role of MIS in those areas will be addressed. This course requires advisor permission to enroll.

Course Learning Outcomes:
After finishing this course, a student should be able to
1. Identify current and emerging MIS topics and their related materials
2. Review and critique the literature in the area of his/her interest
3. Apply and integrate MIS knowledge sets, skills, and tools to a real-world complex problem
4. Review contemporary issues in MIS and be able to evaluate their impact on MIS problems in an
organizational setting