

MANAGEMENT INFORMATION SYSTEMS (MIS)

MIS-514 Networks

Credits: 3

Prerequisite(s): CS-501A

Term Offered: All Terms

Course Type(s): CISEL

An introductory-level course on the hierarchy of networking software and hardware. Particular emphasis on Medium Access Control, Network layer, Transport layer, and Session layer. Several MAC-layer protocols, TCP/IP. Also listed as CS-514.

MIS-517 Database Design and Management

Credits: 3

Prerequisite(s): CS-503 passed with a grade of B or higher

Term Offered: All Terms

Course Type(s): None

Introduction to database systems, data modeling, design theory and methodologies, query languages and query processing. Coverage of relational database model and design, normalization process, SQL, hands-on database design and application development. Also listed as CS-517.

MIS-525 Information System Architecture

Credits: 3

Prerequisite(s): MIS-565 or SE-565

Term Offered: All Terms

Course Type(s): None

Serves as an introduction to information systems architecture. The topics covered deal with an introduction to database systems, data models, the relational database model, the entity relation model, normalization, advanced data modeling, SQL, database design, transactions, performance, distributed database systems, and data warehouses. For MSIS students only. Also listed as SE-625.

MIS-550 Software Project Management

Credits: 3

Prerequisite(s): SE-505

Term Offered: Fall Term

Course Type(s): None

Project Management techniques and their application to the management of software projects. How to develop a software development plan and its associated tasks, milestones and deliverables. Software project scheduling and the establishment of relationships among the different tasks. Tasks, dependencies and conflict resolution. Resource management and allocation. Software project cost estimation. Algorithmic models for estimating costs: the COCOMO model and its derivatives. Risk assessment and its impact in the planning and scheduling of software projects. Software project measurement and tracking. Comparative review of software tools for software project management. Software configuration management and its importance in the management of large software projects. For MSIS students only. Also listed as SE-650.

MIS-551 Software Organization Management

Credits: 3

Prerequisite(s): SE-505

Term Offered: Spring Term

Course Type(s): None

Management issues regarding the software process. Authority and delegation. Leadership and leadership paradigms. Software team management organization, staffing and evaluation. Organizational alternatives. Centralized vs. decentralized organizations. Managing design, development and testing teams. Managing software support organizations. Strategies for staffing: minimal vs. redundant staffing. Combining generalists and specialists to achieve an optimal staff configuration. Staff development and growth. Fostering professional growth within the organization. Evaluation strategies and techniques. Compensation and reward issues. For MSIS students only. Also listed as SE-651.

MIS-565 Software System Requirements

Credits: 3

Prerequisite(s): CS-501A, SE-505, and SE-511

Term Offered: All Terms

Course Type(s): None

Students will learn advanced methods in software systems requirements. Ideally, these methods should be applied at the system, enterprise or global levels of software development. Methods in requirements elicitation, modeling of enterprises, prioritization and negotiation of requirements will be emphasized. Methods for including COTS into system applications and product families will be introduced. By the end of the course, students will master the standard documentation of system requirements. Many opportunities for hands-on experience with requirement tools will be provided throughout the course. For MSIS students only.

MIS-575 Software Verification, Validation and Maintenance

Credits: 3

Prerequisite(s): CS-501A and SE-505

Term Offered: All Terms

Course Type(s): None

Explores the techniques employed to insure quality in a software product developed in a controlled and disciplined environment. Detailed examination of software testing and inspection principles and methodologies. Provides specific methods for test case selection and inspection development leading to optimization of resource management in the software environment. For MSIS students only.

MIS-588 Information Systems Practice and Experience

Credits: 1

Term Offered: All Terms

Course Type(s): None

Provides opportunity for international Information Systems graduate students on an F1 student visa to obtain related experience via employment at a local company or institution, with Monmouth University sponsorship. Available only to Information Systems graduate students who have completed at least 18 credit hours of graduate courses (500-600 level), with a minimum G.P.A. of 3.00. This course does not satisfy elective requirements. Students may take this course a maximum of two times. Limited to MSIS students on an F1 Student Visa. This is a pass/fail course.

MIS-599 Independent Study in Management Information Systems**Credits: 3**

Prerequisite(s): #12 credits in Management Information Systems

Term Offered: Fall Term

Course Type(s): None

The development and execution of a significant research project designed by the student in consultation with a management information systems professor. This is an experience meant to focus learning on an area of special interest to the student. Prior permission of the directing professor and department chair is required to take this course.

MIS-623 Management Information Systems**Credits: 3**

Term Offered: Fall Term

Course Type(s): None

A survey of the concepts of management information systems and the information needs of management. A user-oriented introduction to the fundamentals of information systems and their integration into business organizations. Also listed as SE-623. Not open to students who have successfully completed BM-520.

MIS-691 Management Information System Thesis I**Credits: 3**

Prerequisite(s): BM-520, MIS-525, MIS-565 and either MIS-517 and MIS-514 and MIS-575 or BM-565 and MIS-550 and MIS-551

Term Offered: All Terms

Course Type(s): None

First semester of independent research in management information systems, spanning a period of two consecutive semesters in an area not substantially covered in a regular course offering, under the supervision of a faculty member. A formal thesis is required. An oral defense of the thesis before a committee of two faculty members who teach MIS courses, plus the advising professor is required. Depending on the topic, a reviewer from outside the program faculty may be asked to serve as a committee member. For MSIS students only.

MIS-692 Management Information System Thesis II**Credits: 3**

Prerequisite(s): MIS-691

Term Offered: All Terms

Course Type(s): None

Second semester of independent research in management information systems, spanning a period of two consecutive semesters in an area not substantially covered in a regular course offering, under the supervision of a software engineering faculty member. A formal thesis is required. An oral defense of the thesis before a committee of two faculty members who teach MIS courses, plus the advising professor is required. Depending on the topic, a reviewer from outside the program faculty may be asked to serve as a committee member. For MSIS students only.

MIS-695A Management Information System Practicum I**Credits: 3**

Prerequisite(s): BM-520 or MIS-623 and MIS-525 and MIS-565

Term Offered: All Terms

Course Type(s): None

A two-semester course sequence with major emphasis on a hands-on, team-oriented software development project. Students will be asked to form groups of three to five persons, which will work as a team whose purpose will be propose, plan, develop and market a software product. The teamwork exercise will be accompanied by readings, lectures and seminar discussions on economics, organizational behavior and management, managerial and financial accounting, finance, marketing, quantitative business modeling, electronic commerce, logistics, ethics, law and social responsibility. For MSIS students only.

MIS-695B Management Information System Practicum II**Credits: 3**

Prerequisite(s): MIS-695A

Term Offered: All Terms

Course Type(s): None

A two-semester course sequence with major emphasis on a hands-on, team-oriented software development project. Students will be asked to form groups of three to five persons, which will work as a team whose purpose will be to propose, plan, develop and market a software product. The teamwork exercise will be accompanied by readings, lectures and seminar discussions on economics, organizational behavior and management, managerial and financial accounting, finance, marketing, quantitative business modeling, electronic commerce, logistics, ethics, law and social responsibility. For MSIS students only.

MIS-699 Individual Research Project in Management Information Systems**Credits: 1-3**

Term Offered: Spring Term

Course Type(s): None

The development and execution of a significant research project designed by the student in consultation with a Management Information Systems professor. An experience meant to focus learning on an area of special interest to the student. Prior permission of the directing professor and department chair is required to take this course.