MIS - Management Information Systems

Courses numbered 100 to 299 = *lower-division*; 300 to 499 = *upper-division;* 500 to 799 = *undergraduate/graduate*.

MIS 190. Selected Topics in MIS   (1-3).
An umbrella course created to explore a variety of subtopics differentiated by letter (e.g., 190A, 190B). Not all subtopics are offered each semester – see the course schedule for availability. Students enroll in the lettered courses with specific topics in the titles rather than in this root course.

MIS 310. Fundamentals of Business Application Development   (3).
Uses a contemporary business programming language to teach business application development concepts in a visual programming environment. Designed for learning how to solve business problems by using event-driven programming.

MIS 325. Data Communications and Computer Networks   (3).
Takes a problem-solving approach to introducing data communication and computer networking concepts. Technical and managerial issues in supporting electronic commerce, business-to-business electronic data interchange, virtual teams, extranets, local area networks (LAN), remote access and internetworking LANs over a wide area network (WAN) provide the backdrop for introducing data communication concepts (OSI), standards, protocols and technologies.

MIS 390. Special Topics in MIS   (1-3).
An umbrella course created to explore a variety of subtopics differentiated by letter (e.g., 390A, 390B). Not all subtopics are offered each semester – see the course schedule for availability. Students enroll in the lettered courses with specific topics in the titles rather than in this root course. Prerequisite(s): junior standing, advanced standing.

MIS 395. Management Information Systems   (3).
Provides a broad overview of how businesses adopt and employ information systems to achieve and maintain their competitive edge. The integrated role of information technologies across business functions is examined. Explores emerging technologies and the implications of information technologies on individuals, businesses and societies. Prerequisite(s): junior standing, advanced standing.

MIS 481. Cooperative Education   (1-3).
Academic program that expands a student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Repeatable for credit. Prerequisite(s): 2.500 GPA in MIS, junior standing, advanced standing.

MIS 481N. Internship   (1-3).
Complements and enhances the student's academic program by providing an opportunity to apply and acquire knowledge in a workplace environment as an intern. Prerequisite(s): departmental consent.

MIS 491. Independent Study/Project   (1-3).
Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Prerequisite(s): 2.750 GPA in the academic area, junior standing, advanced standing, departmental consent.

MIS 600. Database Management Systems   (3).
Introduces various methodologies for conceptual data modeling including entity-relationship data modeling and logical database design. Covers relational database management systems, the SQL standard and data administration issues. Students obtain hands-on development with SQL servers in a client/server environment through a required database programming project. Covers topics of data warehousing, data mining, distributed database management and emerging topics in database areas.

MIS 605. Systems Analysis and Design   (3).
Introduces various methodologies for systems analysis, design and implementation. Examines application development in the context of the overall MIS master planning effort; examines techniques related to business process engineering. Uses a real-life project as the vehicle to put into practice tools and techniques related to interviewing, cost/benefit analysis, computer-aided software engineering, software project management and system documentation. Prerequisite(s): junior standing, advanced standing.

MIS 610. Dynamic Web Programming   (3).
Uses ASP.NET as the programming tool to teach Web application development. Includes HTML forms, server objects, and SQL-based data sources for developing interactive and dynamic Web applications within a server-based scripting environment. Covers advanced topics such a ADO and implementing security in Web environments. Prerequisite(s): MIS 310, 600 each with a grade of C+ (2.300) or better, junior standing, advanced standing.

MIS 611. Topics in Computer Networking   (3).
Selected data communications and networking topics are examined in greater detail and depth. Students study the design, configuration, implementation, maintenance, management, troubleshooting and evaluation of selected networking technologies and software. Time is devoted to both concepts and hands-on exercises. Prerequisite(s): junior standing, advanced standing.

MIS 612. Fundamentals of Cloud Computing   (3).
The cloud market is rapidly evolving, and with many technologies available for cloud, it is a difficult task for IT professionals to make decisions for their companies about how to move to cloud. In this course, students learn the complete basics of the cloud ecosystem, explore applications in the cloud, and receive a detailed overview of cloud platforms including Amazon Web Services and Microsoft Azure. By the end of this course, students know what cloud computing is all about and are ready to apply that knowledge to solve real world case studies and scenarios. Prerequisite(s): junior standing, advanced standing.

MIS 615. Advanced Business Application Development   (3).
Presents advanced concepts and techniques for business problem solving by developing software applications using a contemporary business programming language. Special emphasis is placed on object-oriented programming approach. Topics include developing classes, using a multi-tiered approach toward application development, establishing database connection, working with data tables, and database processing. Prerequisite(s): MIS 310 with a grade of C+ (2.300) or better, junior standing, advanced standing.

MIS 690. Seminar in Selected Topics   (1-3).
An umbrella course created to explore a variety of subtopics differentiated by letter (e.g., 690A, 690B). Not all subtopics are offered each semester – see the course schedule for availability. Students enroll in the lettered courses with specific topics in the titles rather than in

this root course. Prerequisite(s): senior standing, departmental consent, advanced standing.

MIS 690E. Enterprise Cybersecurity   (3).
Delves into the management challenges and real-world ramifications associated with safeguarding information systems within organizations. It places a strong emphasis on exploring the landscape of IT security threats, cryptography, network security, access control, firewalls, host hardening, application security, data protection and incident response. It couples a robust theoretical foundation with a substantial practical aspect. Students acquire the skills to assess and resolve issues in information systems and employ cutting-edge security tools and software.

MIS 696. Management of the IS Function   (3).
Addresses the issues of managing the information systems (IS) function. Includes the role of IS as a corporate entity, developing a strategic plan for IT investments, organizing the IS department, IS personnel management, IS project management, the role of IS as a user-support entity, auditing the IS function and emerging issues in managing the IS department. Pre- or corequisite(s): MIS 605, junior standing, advanced standing.

MIS 750. Data Visualization   (3).
Cross-listed as BSAN 750. Introduces data visualization principles and prepares managers for developing and implementing digital performance dashboards to monitor business processes and make informed decisions. Covers a broad category of data visualization strategies for descriptive data analysis, visual data analysis and design choices. Emphasizes the importance of using big data and insightful visualizations to improve the business decision-making process. Hands-on projects with the use of modern data visualization software are included.

MIS 755. Project Management   (3).
Cross-listed as DS 755. This hands-on and project-based technology course establishes fundamental guidelines for defining the process of project management and designing time-constrained projects. Covers core methodology for managing complex projects on time. Uses a software tool. Prerequisite(s): junior standing, advanced standing; students are strongly recommended to take DS 350 before taking DS 755.