

MANAGEMENT INFO SYSTEMS (MIS)

MIS 5111 MSIS Career and Professional Development (1)

Pre-requisite(s): Admission to MSIS Program

This course consists of a variety of career exploration and development experiences designed to help students identify their career interest and prioritize and focus their job search efforts, as well as develop their leadership, communication, and personal marketability skills.

MIS 5145 Excel Modeling Fundamentals (1)

Pre-requisite(s): Admission to graduate business program

This course provides students with essential spreadsheet (Excel) modeling skills in preparation for coursework in graduate business programs. Special attention is given to navigating the Excel environment, formatting and basic functions, data analysis, charts, and modeling best practices

MIS 5151 Technical Foundations of Information Systems (1)

Part one of this course provides an overview to examine the role of information technology (IT) in business organizations, its impacts, and potential for enhancing a firm's competitive positioning. Part two exposes students to the four underlying technical elements of IT infrastructure: hardware, software, databases, and networks. This technology overview provides students with basic literacy in technology concepts to enable effective communication with technical specialists in the business environment.

MIS 5152 The Innovative Tech Leader (1)

Pre-requisite(s): Admission to MBA Program

Course examines the role of information technology (IT) in creating competitive advantage, enhancing value, and driving innovation in organizations with a focus on examining the cross-functional leadership skills required to successfully plan, develop, deploy, and lead IT projects in enterprise environments. Students build skills in assessing risk, dealing with ambiguity, and understanding the strategic role IT plays in organizations.

MIS 5153 Managing the IT Resource (1)

Pre-requisite(s): MIS 5152

Part one of this course examines principles and practices related to effective systems development practices from the standpoint of a non-technical manager. We begin the section with a discussion of the systems development life cycle (SDLC) and augment this with a discussion of emerging systems development trends and practices as well as an examination of traditional systems development methodologies. Part two of the course examines various IT risk management and security issues.

MIS 5301 Seminar in Object-Oriented Business Programming (3)

Students will survey object-oriented concepts currently used in the development of business applications. Emphasis will be placed on programming logic, data structures, and program analysis.

MIS 5315 NET Systems Development (3)

Pre-requisite(s): MIS 5301

Presents current technological solutions to business information needs. The course focuses on tools available to IS professionals to develop business applications that can run on networks and client/server systems. Emphasis will be placed on "NET" development of client/server systems.

MIS 5317 Seminar in Java Development (3)

Pre-requisite(s): MIS 5301

Seminar in client-side application development using the Java programming language. Topics include object-oriented design, essential language syntax, and developing user, file, and Internet interfaces for business systems to support e-commerce initiatives.

MIS 5319 Development of Mobile Applications (3)

Study of applications development in a cross-platform mobile computing environment.

MIS 5322 Advanced Python for Analytics (3)

Prerequisite(s): MIS 5301 or equivalent. Study of advanced topics in the Python programming language. Focus is on data analytics and data science. Main topics include data visualization, array processing, data mining, machine learning, natural language processing, and web application development. Projects cover game development using PyGame and web app development using Django.

MIS 5331 Project Management (3)

Cross-listed as MGT 5331

See MGT 5331 for course information.

MIS 5332 Advanced Project Management: The Systematic Implementation of Complex Organizational Project (3)

Cross-listed as MGT 5332

See MGT 5332 for course information.

MIS 5335 Information Systems Analysis and Design (3)

To acquaint students with the concepts, problems, and possible solutions for all stages of the systems development life cycle. Emphasis on object-oriented analysis and design techniques. Topics include modeling with UML, the role of the IS professional in the development of successful systems, and project management.

MIS 5340 Database Management Systems (3)

Pre-requisite(s): Graduate level standing

The use of database techniques to represent and manipulate data in the development of information systems. Includes rationale and objectives of the database approach; conceptual data modeling; logical database design; mapping logical design to the relational data model; physical design and implementation of databases; manipulating information in databases; database administration; and connecting applications to databases, including web-enabled applications.

MIS 5341 Advanced Database Management (3)

Pre-requisite(s): MIS 5340 or consent of instructor

This course will cover advanced topics in database design and implementation, including the storage, access, and management of business information to facilitate decision-making. Topics may include advanced SQL commands, application data access using PL/SQL and/or ASP, advanced topics in database systems such as XML and data warehouses, and database administration topics. A technical presentation may be required.

MIS 5342 Business Intelligence (3)

Pre-requisite(s): QBA 5330 or STA 5300 or department approval
 Business Intelligence (BI) is the discovery of patterns and relationships hidden in large volumes of data. This hands-on course is designed to provide practical analytic skills that may be applied in almost any workplace. The course explores the analytical techniques for making intelligent business decisions in data-rich organizations. A key component of the course is the use of BI software tools with techniques such as correlation analysis, data visualization, linear regression, classification, and clustering to address common problems in marketing, customer relationship management, risk management, finance, and operations. Students must satisfy the following pre-requisite for this course based on degree program: -MBA: QBA 5330 -MSBA: STA 5300 -MSIS and MACC: Departmental Approval

MIS 5343 Seminar in Data Visualization (3)

Covers basic theories of cognition and data visualization, including how data types influence the decision to use a particular representation, when to use various chart types, how to structure data visualizations, and visualization evaluation. Emphasis on ethical use of visualizations.

MIS 5344 Data Visualization and Analysis using Excel (3)

This advanced Excel course focuses on harnessing the power of built-in 'Power Tools' like Power Query, Power Pivot and Power BI to efficiently manipulate, analyze, and visualize large datasets, enabling users to transform raw data into actionable insights through data cleaning, complex calculations, and dynamic reporting.

MIS 5345 Decision Making Using Excel for Healthcare Students (3)

This computer applications course provides students with advanced data analysis and modeling skills necessary for manipulating, sharing, and presenting data to support business decision making. Major topics covered include, but are not limited to, 1) advanced financial functions/concepts blending with complex conditional & retrieval functions, 2) data validation, formula auditing & macros/VBA, 3) complex queries with advanced filters, 4) PivotTables and PivotCharts, 5) organizing, importing, connecting to & cleansing data to be used for analysis (including complex text functions, PowerQuery & PowerPivot), 6) data visualization using data models & dashboards design.

MIS 5348 Cloud Computing (3)

This foundational course offers a deep dive into cloud computing, where participants will learn to define cloud computing, understand the pricing philosophy for such services, and identify necessary cloud infrastructure. Through hands-on exercises, students will gain practical skills in creating virtual clouds, managing security, and employing related software for different use cases. The course also addresses the selection of appropriate storage and database services and introduces architectural principles, load balancing, monitoring, and scaling within a cloud ecosystem.

MIS 5355 Management of Information Systems (3)

Future information systems leaders and managers focus on understanding the issues involved in deploying information systems in organizations, the evaluation and adoption of emerging information and communication technologies (ICTs), the strategic role of the IS function, and the relationship of IS with the overall enterprise. Course coverage includes in-depth analysis of current issues in the field of information systems.

MIS 5390 Ethics in Data Analytics (3)

Pre-requisite(s): QBA 5330, STA 5300, or equivalent
 Ethical decision-making in data analytics and contemporary issues. Topics include ethics theory, American Statistical Association Ethical Guidelines for Statistical Practice, ethics issues in statistical analyses and presentation of data, ethical consideration in the information age, and data ethics in contemporary issues.

MIS 5394 Business Analytics Practicum (3)

Students will develop a thorough and effective analytics report, marking progress through established milestones. These milestones include cleaning and completing the data set, performing exploratory analysis, enhancing research with secondary sources, and formulating a clear research question or development goal. As the project advances, further data refinement, hypothesis evaluation or product development, and effective communication of findings through various mediums such as presentations or blog posts will be emphasized.

MIS 5450 Management of Information Systems (4)

This course deepens student's understanding and appreciation of the strategic role that information technology plays in organizations and provides key concepts for effectively planning, building, deploying, and managing information resources in enterprise environments. The course is relevant for students seeking career opportunities in IT management or consulting and individuals aspiring to a career in general (non-IT) management.

MIS 5V95 Internship in Information Systems (1-6)

Pre-requisite(s): Consent of instructor
 Provides students with a carefully directed real-world learning experience. A project developed jointly by the sponsoring company and faculty provides experience in various IS functions and business activities.

MIS 5V98 Special Studies in Information Systems (1-6)

Pre-requisite(s): Consent of instructor
 Offered on demand for one to six semester hours of credit.

MIS 5V99 Thesis (1-5)

Pre-requisite(s): Consent of instructor
 Research, data analysis, writing, and oral defense of an approved master's thesis. At least five hours of MIS 5V99 are required.

MIS 6310 Foundations in Information Systems Research (3)

A seminar covering key classical information systems readings and theoretical perspectives designed to help students critically think and constructively criticize research papers in the field.

MIS 6320 Quantitative Methods in Information Systems Research (3)

This course is designed to provide doctoral level students with an introduction to the major methodological issues and techniques associated with quantitative research. Emphasis is given to the techniques that are most commonly used in information systems research.

MIS 6325 Quantitative Methods: Survey Research Using PLS Analysis (3)

This course focuses on the understanding and use of Partial Least Squares (PLS) methodology in IS research contexts. PLS is used by students to simulate path analysis procedures using data gathered by the professor. Requirements of the course include learning the fundamental statistical foundations underlying structural equations modeling and soft modeling and survey methods. This course provides direction for the successful completion of an independent research project using PLS that will be submitted to an IS conference and/or journal.

MIS 6330 Theoretical Perspectives in Information Systems Research (3)

A seminar designed to provide doctoral students across different disciplines a broad introduction to key management, organizational, and behavioral research issues, and challenges in topics of information technology (IT). The course is designed for both information systems (IS) and non-IS Ph.D. students.

MIS 6340 Qualitative Methods in Information Systems Research (3)

A seminar designed to provide doctoral level students with an introduction to the major methodological issues and techniques associated with qualitative research. Emphasis is given to case research strategies, both positivist and interpretive, but the course will also discuss action research.

MIS 6345 Qualitative Methods: Collecting and Analyzing Case Study Data (3)

The course covers the conceptual foundations of the qualitative research process that includes gaining access to a field site, conducting interviews, writing field notes, coding and analyzing data using a qualitative analysis software tool, and writing research results. Additionally, students will have the opportunity to code and analyze real-world data using a qualitative data analysis tool.

MIS 6350 Conducting Effective Literature reviews: A Doctoral Seminar for pre-Dissertation Students (3)

A course to help doctoral students learn to write theory-building literature reviews. Doctoral students taking this class will read and discuss a variety of review papers published primarily in MIS quarterly, but also in several other journals from management literature.

MIS 6370 Contemporary Issues in Information Systems Research (3)

This course aims to help doctoral students gain exposure to the latest in IS research. The emphasis will be given on the research published in the highest quality IS journals over the past year as well as research appearing in the top conferences in the past year.

MIS 6372 Seminar in Group Communication and Decision-making (3)

This course is designed to provide the participant with a basis for developing a rich understanding concerning the nature of information systems in support of group communication and decision-making within the organization. The primary focus involves the interaction of these systems with the behavioral systems within the firm.

MIS 6374 Organization Theory and its Application in Information Systems Research (3)

A seminar designed to acquaint students with the theories used to examine phenomena related to the introduction, adoption, use, and exploitation of information systems in organizations. The bulk of the material covered will be at the organizational level of analysis.

MIS 6380 Ethics in Contemporary Topics in Information Systems (3)

This doctoral seminar examines ethical issues and dilemmas in contemporary and emerging topics within information systems. The course takes an interdisciplinary approach to eight areas related to information systems.

MIS 6398 Research Apprenticeship I (3)

Pre-requisite(s): Completion of first year of Ph.D. program
Students are assigned to a research mentor to facilitate understanding of the research process with the goal of producing a manuscript suitable for submission to a conference proceedings or journal article.

MIS 6399 Research Apprenticeship II (3)

Pre-requisite(s): MIS 6398; completion of second year of Ph.D. program
Students are assigned to a research mentor to facilitate understanding of the research process with the goal of producing a manuscript suitable for submission to a conference proceedings or journal article.

MIS 6V00 Dissertation Proposal (1-9)

Pre-requisite(s): Completion of all required coursework for PhD in MIS Research for doctoral students who have completed their required coursework but are not yet registered for MIS 6V99. The course may be repeated.

MIS 6V98 Special Studies in Information Systems (1-6)

Specialized study for PhD students in Information Systems. Special studies are offered on demand and may count for one to six semester credit hours. They may be taken more than once provided the title and content substantially differ from prior special studies courses.

MIS 6V99 Dissertation (1-12)

Pre-requisite(s): Completion of coursework and comprehensive exam
Supervised research for the doctoral dissertation.