

# MANAGEMENT INFO SYSTEMS (MIS)

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## **MIS 3150 Topics in Information Systems (1)**

Pre-requisite(s): A minimum grade of C in BUS 1305; or consent of instructor

A study of selected areas of information systems, including operating systems, personal and business application software, considerations in hardware and software, acquisition connectivity, multimedia, and other current issues. This course may be taken for a maximum of six semester hours if topic is different (or if each topic is different).

## **MIS 3301 Introduction to Business Programming Logic (3)**

Pre-requisite(s): Credit or concurrent enrollment in MIS 3305, and a minimum grade of C in QBA 2302; only open to BBA students; BBA students must be admitted to the Business School in order to take this course

Study of object-oriented programming that focuses on developing business applications using a programming language like Visual Basic.Net. Topics include programming basics, typical programming structures, data structures, and error analysis.

## **MIS 3305 Management Information Systems (3)**

Pre-requisite(s): A minimum grade of C in QBA 2302

Open only to BBA students. Examines the use of information and communication technologies (ICT) in organizational settings and gives a balanced perspective of MIS from the standpoint of the non-technical manager. Topics include acquisition, management, use and control of information systems and their impact on individuals, organizations and society. Emphasis is on the business manager's role in developing and managing information systems and the uses of ICT to create competitive advantage.

## **MIS 3320 Systems Analysis and Design (3)**

Pre-requisite(s): Credit or concurrent enrollment in MIS 3301 and 3305; a minimum grade of C in QBA 2302; only open to BBA students; BBA students must be admitted to the Business School in order to take this course

A study of the Systems Development Life Cycle with focus on the planning, analysis, and design phases. Explores the various tools and techniques used by systems analysts for process and data modeling as well as user interface design.

## **MIS 3332 Control and Audit of Information Systems (3)**

Cross-listed as ACC 3331

Pre-requisite(s): A minimum grade of C in ACC 2304

Emphasizes the control and audit of information systems. Topics include accounting systems, controls and transaction processing, and IT auditing. The course should help students develop an appreciation of and motivation for proper information processing practices and controls.

## **MIS 3341 Developing Client Server Applications (3)**

Pre-requisite(s): Minimum grade of C or better in both MIS 3301 and 3320

The course utilizes high-level object-oriented development tools such as Visual Studio.NET to teach application development techniques for local client-server and web-based environments. Topics such as server-side scripting, web design, web page security, and database access will be undertaken to enable students to build robust business software applications.

## **MIS 3350 Introduction to Data Management and CRM (3)**

Pre-requisite(s): Students should have taken BUS 1305 or have general proficiency in MS Office tools

Open to all business majors, this course is designed to provide students with hands-on data management skills that will facilitate the effective use of Customer Relationship Management (CRM) technology. Key components of this course include information modeling and database creation, querying and analyzing organizational data, and the management and analysis of customer information using CRM technology.

## **MIS 4319 Mobile Application Development (3)**

Pre-requisite(s): Upper-level standing; only open to BBA students; BBA students must be admitted to the Business School in order to take this course

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

## **MIS 4320 Java Development (3)**

Pre-requisite(s): Grades of C or better in MIS 3301 and 3320; only open to BBA students; BBA students must be admitted to the Business School in order to take this course

Introduction to 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 4321 Business Systems Development (3)**

Pre-requisite(s): Grades of C or better in both MIS 3301 and 3320; only open to BBA students; BBA students must be admitted to the Business School in order to take this course

Concentrates on business application development using traditional object-oriented development tools. Topics include essential language syntax, class modeling, and developing user, file, and database interfaces for business systems.

## **MIS 4322 Advanced Python (3)**

Pre-requisite(s): MIS 3301; only open to BBA students; BBA students must be admitted to the Business School in order to take this course

Study of advanced topics in the Python programming language. Focus is on data analytics and data science using large data sets in an advanced IDE environment. Code source control taught using Git and Github.

## **MIS 4330 Project Management (3)**

Cross-listed as MGT 4330

Pre-requisite(s): MGT 3325; only open to BBA students; BBA students must be admitted to the Business School in order to take this course

This course covers concepts and issues important in effective project management including project planning, budgeting, scheduling, auditing, project termination, and the role of the project manager. Methodologies for monitoring and controlling projects, risk analysis, and resource allocation are also presented. The student will learn how to apply Microsoft Project software to real life projects and learn how to manage projects effectively in both single and multi-project environments. This course is also designed to help the student prepare for certification as a Project Management Professional (PMP).

**MIS 4331 Advanced Project Management (3)**

Cross-listed as MGT 4332

Pre-requisite(s): MGT/MIS 4330 or MGT/MIS 5331 or 3 years of project management experience

Complex project management requires high performance project managers capable of dealing with the chaos of today's organizational environment. This seminar focuses on the advanced project management skills, systems thinking, and process modelling needed to implement complex organizational programs, and manage projects for business process improvement.

**MIS 4340 Foundations of Database System Development (3)**

Pre-requisite(s): Not open to pre-business students

BBA students must be admitted to the Business School in order to take this course. Concentrates on implementing systems and databases including physical database systems, data access, and database applications. Topics include: design issues; SQL; database administration; database integrity; security; selection; and implementation.

**MIS 4342 Fundamentals of Information Security (3)**

Pre-requisite(s): Grades of C or better in both MIS 3301 and 3320; only open to BBA students; BBA students must be admitted to the Business School in order to take this course

This course provides students with a common body of knowledge in key information security knowledge domains. Topics include access controls; networks and telecommunications basics; cryptography; malicious attacks, threats, and vulnerabilities; monitoring and analysis; risk, response, and recovery; and security operations and administration. The course prepares entry-level professionals in both technical and non-technical disciplines with the key skills and concepts needed to contribute to the information security posture of their organization.

**MIS 4343 Advanced Database Management (3)**

Pre-requisite(s): MIS 4340; not open to pre-business students

This course covers advanced topics in database design and implementation, including the storage, access, and management of business information to facilitate decision-making. Topics may include application data access using PL/SQL, advanced topics in database systems such as XML and data warehouses, and database administration topics.

**MIS 4344 Business Intelligence (3)**

Pre-requisite(s): A minimum grade of C in QBA 3305; only open to BBA students; BBA students must be admitted to the Business School in order to take this course

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.

**MIS 4346 Foundations of Data Warehousing (3)**

Pre-requisite(s): MIS 4340 or consent of instructor; only open to BBA students

This course covers techniques used to implement data structures that are optimized for organizational decision-making. A hands-on approach is used to cover the following data warehousing (DW) topics: basic concepts and architectures, DW modeling and physical design, ETL processes, and real-world DW uses such as OLAP queries and reporting tools and ad-hoc analysis of OLAP data.

**MIS 4350 Cyber Security Technology Factors (3)**

Pre-requisite(s): MIS 4342 or its equivalent; only open to BBA students

This course provides a roadmap of the paths available to organizations for deploying various security devices and tools. The course goes beyond the narrow technical view and offers a full context for the deployment of security technologies. Six key areas of network security will be covered, with each section covering a tool that will play a part in a company's overall information assurance program.

**MIS 4355 Decision Making Using Excel (3)**

Pre-requisite(s): MIS 3305 or consent of instructor

A computer applications course providing the tools necessary for manipulating, sharing, and presenting data to support business decision making. Topical coverage includes data analysis, multiple applications linking, simulation modeling, and decision making under uncertainty.

**MIS 4360 Fund of Data Visualization (3)**

Pre-requisite(s): QBA 3305; only open to BBA students; BBA students must be admitted to the Business School in order to take this course  
Covers basic theories of cognition and data visualization, including understanding 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 4395 Internship in Information Systems (3)**

Systems

**MIS 4V98 Special Studies in Information Systems (1-6)**

Pre-requisite(s): Consent of instructor; not open to pre-business students

This course may be taken for one to six semester hours of credit.

**MIS 4V9R Undergraduate Research in Management Information Systems (3)**

Pre-requisite(s): Consent of the instructor

Undergraduate research undertaken with the supervision of a faculty member. May be taken in multiple semesters for a maximum of 6 hours.