

MANAGEMENT OF INFORMATION SYSTEMS (MIS)

100 Level Courses

MIS 102: *Spreadsheet Applications for Business.* 1 credit.
Hands-on course using popular spreadsheet package. Business examples used to teach fundamentals of spreadsheets and their use in business applications. Offered by School of Business. May not be repeated for credit.

Schedule Type: Laboratory

300 Level Courses

MIS 301: *Introduction to Business Information Systems.* 3 credits.
Introduces fundamentals of hardware, software, and networking. Emphasizes role of technology in improving contemporary business processes and competitive advantage. Includes basic relational concepts, hands-on experience in building business database applications and decision support using spreadsheet software. School of Business students will not be permitted to make more than three attempts to achieve a C or higher in MIS 301. Those who do not successfully complete this course within three attempts will be terminated from their major and will not be eligible to receive a degree from the School of Business. For more information about this, see the "Termination from the Major" section under Academic Policies Notes: Projects required. Students cannot receive credit for both MIS 301 and MIS 303. Offered by School of Business. Limited to three attempts. Equivalent to MIS 303.

Registration Restrictions:
Students with a class of Freshman may **not** enroll.

Non-Degree level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Lecture

MIS 302: *Introduction to Programming for Business Applications.* 3 credits.
Covers design and implementation of program data structures and algorithms to solve business problems using structured programming techniques. Students become familiar with program development life cycle using standard programming language such as Visual BASIC.NET supported by a modern Integrated Development Environment (IDE). Students complete assignments involving development of real-life business application. Offered by School of Business. May not be repeated for credit.

Registration Restrictions:
Students with a class of Freshman may **not** enroll.

Non-Degree level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Lecture

MIS 303: *Introduction to Business Information Systems.* 3 credits.
Introduces fundamentals of hardware, software, and networking. Emphasizes role of technology in improving contemporary business processes and competitive advantage. Includes basic relational concepts, hands-on experience in building business database applications and decision support using spreadsheet software. Notes: Students cannot receive credit for both MIS 301 and MIS 303. School

of Business students will not be permitted to make more than three attempts to achieve a C or higher in MIS 303. Those who do not successfully complete this course within three attempts will be terminated from their major and will not be eligible to receive a degree from the School of Business. For more information about this, see the "Termination from the Major" section under Academic Policies. Offered by School of Business. Limited to three attempts. Equivalent to MIS 301.

Mason Core: Information Technology: With Ethics

Registration Restrictions:
Non-Degree level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Lecture

MIS 310: *Database Management Systems.* 3 credits.
Introduces principles of designing and manipulating relational databases with a focus on business applications. Theoretical database concepts and hands-on experience with a relational package. Term project requiring implementation of a substantial business database application. Notes: School of Business students may not receive credit for both MIS 310 and IT 214. Requires hands-on implementation using software package. Offered by School of Business. May not be repeated for credit.

Registration Restrictions:
Required Prerequisites: (MIS 301^C or L301) or MIS 303^C or L303.
^C Requires minimum grade of C.

Students with a class of Freshman may **not** enroll.

Non-Degree level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Lecture

MIS 320: *Networks and Security.* 3 credits.
Introduces students to fundamentals of networking technologies and their role in businesses. Emphasis is on understanding the business implications of different networking technologies and solutions. Students learn to identify and understand the business requirements, and bring together the different technological components to design the required communication solutions. Also focuses on the types of security threats to the business network infrastructure, and approach to tackling such threats through business practices combined with appropriate technological solutions. Notes: The course also includes lab work and exercises. Offered by School of Business. May not be repeated for credit.

Registration Restrictions:
Required Prerequisites: (MIS 301^C or L301) or MIS 303^C or L303.
^C Requires minimum grade of C.

Students with a class of Freshman may **not** enroll.

Non-Degree level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Lecture

MIS 330: Systems Analysis and Design. 3 credits.

Understanding systems analysis and design methods is a necessary skill for contemporary business analysts, managers, software engineers and system users. Provides students with the foundations for effectively using modern systems analysis and design tools and methodologies for developing modern software and applications. Topics include systems planning and feasibility analysis, requirements analysis, economics, systems design and project management. Notes: Requires team project. Offered by School of Business. May not be repeated for credit.

Specialized Designation: Writing Intensive in the Major

Registration Restrictions:

Required Prerequisite: (MIS 310^C).

^C Requires minimum grade of C.

Students with a class of Freshman may **not** enroll.

Non-Degree level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Lecture

400 Level Courses

MIS 410: Advanced Database Systems. 3 credits.

Covers advanced database development and administration topics including triggers, stored procedures, indexes, performance tuning, and security. Students will use a state-of-the-art industrial strength database management system as a tool to familiarize themselves with database concepts. Students will conduct exercises on business reporting using databases and front-end applications. Offered by School of Business. May not be repeated for credit.

Registration Restrictions:

Required Prerequisite: MIS 310^C.

^C Requires minimum grade of C.

Students with a class of Freshman may **not** enroll.

Non-Degree level students may **not** enroll.

Schedule Type: Lecture

MIS 412: E-Business Systems Development. 3 credits.

Introduces students to the development of web-based information systems for E-business. Students learn to develop web-based database applications for eCommerce using ASP.NET. Also covers Web 2.0 technologies and contemporary business trends and issues related to web application development. Emphasizes technologies, methods, and application development tools. Notes: Requires team project and computer lab. Offered by School of Business. May not be repeated for credit.

Registration Restrictions:

Required Prerequisites: (MIS 301^C or L301) or MIS 303^C or L303.

^C Requires minimum grade of C.

Students with a class of Freshman may **not** enroll.

Non-Degree level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Lecture

MIS 415: Information Systems Audit and Control. 3 credits.

Covers IT governance, controls, auditing applications, systems development, and operations. It examines trends and define recent advances in technology that impact IT controls and audits - including cloud computing, web-based applications, and server visualizations. It covers IT strategy, business value of IT, as well as controls for IT projects, outsourcing, contracts, cloud computing, etc. Offered by School of Business. May not be repeated for credit.

Registration Restrictions:

Required Prerequisites: MIS 301^C, L301^C, 303^C or L303^C.

^C Requires minimum grade of C.

Schedule Type: Lecture

MIS 420: Information Security and Assurance. 3 credits.

Covers technical concepts, and managerial and policy topics in information and cyber security. Lectures, reading, in-class presentations, hands-on exercises, and examinations ensure that students have sufficient technical awareness and managerial competence related to information security and assurance. Examines the nature of threats and vulnerabilities, cryptography, software vulnerabilities, managing risk, and security controls. Offered by School of Business. May not be repeated for credit.

Registration Restrictions:

Required Prerequisite: MIS 320^C.

^C Requires minimum grade of C.

Schedule Type: Lecture

MIS 430: Data Warehousing. 3 credits.

Deals with the challenges faced by businesses in managing large amounts of data and making meaningful use of this data for informed decision making. Introduces students to data warehousing fundamentals, practices, and technologies; and their application to solving business problems. Specific emphasis is on designing of data warehouse to meet the business requirements and hands-on learning of the design principles through implementation on commercially used data warehouse technologies. Also introduces students to OLAP solutions and data mining approaches to supporting business decision making. Notes: Term project required. Offered by School of Business. May not be repeated for credit.

Registration Restrictions:

Required Prerequisites: MIS 310^C or L310.

^C Requires minimum grade of C.

Students with a class of Freshman may **not** enroll.

Non-Degree level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Lecture

MIS 431: Data Mining for Business Applications. 3 credits.

This course covers data mining methods and tools for business analytics to improve managerial decision making. The objective is to understand data mining methods and their suitability for decision making in a variety of business domains. The students will learn how to apply appropriate analytical tools to gain useful insights from real-life datasets. Offered by School of Business. May not be repeated for credit.

Registration Restrictions:

Required Prerequisites: (MIS 301^C, L301^C, 303^C or L303^C) and (BUS 310^C, OM 210^C or 211^C).

^C Requires minimum grade of C.

Non-Degree level students may **not** enroll.

Schedule Type: Lecture

MIS 462: *Honors Seminar in Management Information Systems (Topic Varies)*. 3 credits.

Topic and format vary. In-depth study of a topic in the area of information technology management. Enrollment limited and competitive. Offered by School of Business. May not be repeated for credit.

Recommended Prerequisite: Degree status in ISOM (or DMIS) major; permission of department.

Registration Restrictions:

Students with a class of Freshman, Junior or Sophomore may **not** enroll.

Non-Degree or Washington Consortium level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Seminar

MIS 491: *Seminar in Management Information Systems*. 3 credits.

Analyzes selected topics that highlight latest developments in information resource management field, including contemporary research findings and case studies of information systems in business and other organizations. Offered by School of Business. May be repeated within the term for a maximum 6 credits.

Registration Restrictions:

Required Prerequisites: (MIS 301^C or L301) or MIS 303^C or L303.

^C Requires minimum grade of C.

Students with a class of Freshman may **not** enroll.

Non-Degree level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Seminar

MIS 499: *Independent Study in Management Information Systems*. 1-3 credits.

Research and analysis of selected problems or topics in information resource management. Offered by School of Business. May be repeated within the term for a maximum 6 credits.

Registration Restrictions:

Required Prerequisites: (MIS 301^C) or MIS L303^C.

^C Requires minimum grade of C.

Students with a class of Freshman may **not** enroll.

Non-Degree or Washington Consortium level students may **not** enroll.

Students with the terminated from BU major attribute may **not** enroll.

Schedule Type: Independent Study