

# MANAGEMENT INFORMATION SYSTEMS (MIS)

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## Courses

MIS 5507 Business Analytics and Statistics Credits: 3

Business Analytics is about the science and the art of using data for making well-informed business decisions. The course covers the techniques used for acquiring and preparing data, as well as various statistical methods and procedures for mining the data to identify and infer patterns, relationships, and trends. It discusses how these methods can be used by managers for descriptive, predictive, and prescriptive purposes. Upon the successful completion of this course, the student will have the knowledge and the hands-on skills to apply business analytics techniques to various business contexts.

**Prerequisites:** Bloch School graduate program student.

MIS 5529 Decision Support Systems Credits: 3

Information systems to support decision makers in organizations. This course focuses on influences of cognitive biases and group think on decision makers. Identification of both potential uses of information technology to support decision makers and potential effects of information technology on the decision making processes, and may include a number of computer-oriented assignments.

**Prerequisites:** MIS 5507.

MIS 5540 Information Technology as a Strategic Tool Credits: 2

This course examines the critical linkage between an organization's business, cultural, and information technology (IT) strategies. In organizations today, information technology has become a key component in accomplishing strategic and operational goals. The course provides concepts and a framework for understanding and enhancing the role IT can play in innovation, change, and continuous organizational learning.

**Prerequisites:** Admission to the Executive MBA program.

MIS 5552 Data Base Management Credits: 3

Data administration, including theory of relational databases and projects using relational data management packages. The course looks at data modeling and information engineering, entity-relationship modeling, database design, normalization, data dictionaries, distributed databases, database servers, data quality assurance, data integrity, SQL, and may include a number of computer-oriented assignments.

**Prerequisites:** MIS 5507.

MIS 5554 Systems Analysis, Design And Engineering Credits: 3

This course introduces tools for documenting information system requirements and design and implementation methods; organization of software projects; system specifications, documentation and diagramming standards; programming languages and methodology; costs and schedule estimation, project management; program verification, and internal control issues.

MIS 5557 Data Management and Data Mining for Business Analytics Credits: 3

Data are the major ingredient for making quality business decisions. Students are introduced to the major steps in storing and preparing data as the raw input for decision-making. This includes an introduction to relational databases and data warehouses. Students also learn data mining techniques and statistical methods for inferring and extracting actionable insight from data. These methods help identify relationships and trends in existing cases and provide predictive power about new, unseen cases. Upon successful completion of this course, students will have an understanding of how data can be used to support fact-based decision-making across various business functions and contexts.

**Prerequisites:** MIS 5507, or DSOM 5509, or PUB-ADM 5510, or ACCTNG 5568, or RL-EST 5573, or FIN 5560.

MIS 5558 Management of Information Technology Credits: 3

Topics to be covered include procurement and management of computer systems, economics of hardware and software, software acquisition, RFQs, RFPs, contract terms and conditions, end-user computing; capacity planning, contribution of computing to business objectives, control, audit, and security of information technology; legal and ethical perspectives; and international issues.

MIS 5559 Data Wrangling Credits: 3

Students will learn the fundamental skills required to acquire, munge, transform, manipulate, and visualize data in a computing environment that fosters reproducibility. This course provides an intensive, hands-on introduction to specialized programming languages, such as R. This course is analytically rigorous, but no previous programming experience is required.

MIS 5587 Special Topics Credits: 3

Special topics in management information systems.

MIS 5597 Independent Study Credits: 1-6

Independent study and research in areas of special interest under individual faculty direction.

MIS 5899 Required Graduate Enrollment Credit: 1