

Management Information Systems (MIS)

MIS 194. Individual Study. 1-5 Credits.

MIS 196. Field Experience. 1-15 Credits.

MIS 199. Special Topics. 1-5 Credits.

MIS 291. Seminar. 1-3 Credits.

MIS 292. Global Practicum: Study Abroad. 1-15 Credits.

Pre-Arranged study at accredited foreign institutions (study abroad), domestic institutions (National Student Exchange) or on approved study abroad programs. Pre-requisite: Sophomore standing and prior approval by International Student and Study Abroad Services and major department. Graded 'P' or 'F' (Undergraduate), or 'S' or 'U' (Graduate).

MIS 294. Individual Study. 1-5 Credits.

MIS 299. Special Topics. 1-5 Credits.

MIS 315. System Analysis and Design. 3 Credits.

Introduction to the front end of the software development life cycle. Includes various modern concepts, techniques, and tools for analyzing and designing well-structured software systems. Prereq: CSCI 161 or CSCI 228.

MIS 320. Management Information Systems. 3 Credits.

Introduction to basic concepts and developments in information technology. Overview of the opportunities and challenges in the development and management of organizational information systems from a socio-technical perspective. Prereq: CSCI 116 or MIS 116 or TL 116. Restricted to College of Business major, minor, or certificate and a 2.50 minimum NDSU grade point average.

MIS 340. Applied Business Intelligence. 3 Credits.

A hands-on look at Business Intelligence as applied to managerial decision making by exploring techniques for information creation including business analytics, data visualization, scorecards, dashboards and data mining. Prereq: MIS 320.

MIS 350. Enterprise Systems. 3 Credits.

Introduction to the theoretical and practical issues related to the application of enterprise systems within organizations. Prereq: MIS 320 and CSCI 161 or CSCI 228 and students must be College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 371. Web Scripting Languages. 3 Credits.

This course examines Scripting Languages and their applications. Emphasis will be placed on web scripting. A representative set of scripting languages will be covered. Prereq: CSCI 122 or CSCI 160 or CSCI 227 or ECE 173. Cross-listed with CSCI 371. Restricted to College of Business professional major or minor, Jr or Sr classification, and a 2.50 minimum NDSU grade point average.

MIS 375. Database Design for Business Application. 3 Credits.

Fundamentals of conceptualizing and implementing databases. Emphasis is on using query languages to obtain information for decision-making. Includes managerial topics related to database administration, security, integrity, optimization, and distributed databases. Prereq: MIS 320, CSCI 228. Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 376. Data and Telecommunications Administration. 3 Credits.

Introduction to a wide variety of topics in the voice and data communications field. Prereq: MIS 320, CSCI 228. Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 391. Seminar. 1-3 Credits.

Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 392. Global Practicum: Study Abroad. 1-15 Credits.

Pre-Arranged study at accredited foreign institutions (study abroad), domestic institutions (National Student Exchange) or on approved study abroad programs. Pre-requisite: Sophomore standing and prior approval by International Student and Study Abroad Services and major department. Graded 'P' or 'F' (Undergraduate), or 'S' or 'U' (Graduate).

MIS 394. Individual Study. 1-5 Credits.

Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 397. Fe/Coop Ed/Internship. 1-4 Credits.

MIS 399. Special Topics. 1-5 Credits.

Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 413. MIS Service Internship. 3 Credits.

Supervised professional information technology experience in a non-paid position. Offered on a Pass/Fail basis only.

MIS 470. Information Systems. 3 Credits.

Exploration of managerial issues pertaining to administration of the information systems function in organizations. Issues include planning, operations, control, electronic commerce, and other current topics. Prereq: MIS 375, CSCI 315. Coreq: MIS 376. Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 479. Business Data Mining and Predictive Analytics. 3 Credits.

Information system support and modeling of the decision-making process via business data analytics techniques such as decision trees, cluster analysis, and neural networks are the primary focus of this course. The state-of-the-art technologies in business data analytics will be explored. Prereq: MIS 320. {Also offered for graduate credit - see MIS 679.}

MIS 491. Seminar. 1-5 Credits.

Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 492. Global Practicum: Study Abroad. 1-15 Credits.

Pre-Arranged study at accredited foreign institutions (study abroad), domestic institutions (National Student Exchange) or on approved study abroad programs. Pre-requisite: Sophomore standing and prior approval by International Student and Study Abroad Services and major department. Graded 'P' or 'F' (Undergraduate), or 'S' or 'U' (Graduate).

MIS 494. Individual Study. 1-5 Credits.

Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 496. Field Experience. 1-15 Credits.

Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 499. Special Topics. 1-5 Credits.

Restricted to College of Business professional major or minor and a 2.50 minimum NDSU grade point average.

MIS 679. Business Data Mining and Predictive Analytics. 3 Credits.

Information system support and modeling of the decision-making process via business data analytics techniques such as decision trees, cluster analysis, and neural networks are the primary focus of this course. The state-of-the-art technologies in business data analytics will be explored. {Also offered for undergraduate credit - see MIS 479.}

MIS 705. Programming for Business Analytics. 2 Credits.

The course introduces the basics of programming languages required to perform tasks in the business analytics workflow, such as data cleansing, data transformation, data visualization, and predictive analytics modeling. Prereq: Admission into the MSBA program or permission of the MSBA program director.

MIS 710. Database Management. 2 Credits.

This course provides a foundational understanding of the management, conceptualization, development, and implementation of databases. It covers normalization, structured query language (SQL), distributed databases, and conceptual modeling using entity-relationship (ER) diagrams. Case examples of modeling data in an organizational context will be utilized. Prereq: Open to MSBA students or with permission of the instructor.

MIS 720. Visualization and Reporting. 2 Credits.

This course provides advanced usage of quantitative analysis using spreadsheets, in-memory database, and development of effective dashboards. Emphasis is on the application of theoretical understanding of the human interaction with the user interface to facilitate communication and story-telling using data. Effectively communicating analysis results to a management and business audience using dashboards and reports to enhance decision-making is examined. Prereq: Open to MSBA students or with permission of instructor.

MIS 740. Advanced Business Analytics Methods. 2 Credits.

This course develops an understanding of practical applicability of advanced analytics methods in a variety of business scenarios. The course is designed to provide hands-on opportunities for students to work with data and apply advanced business analytics techniques and machine learning, which include text mining, natural language processing, web analytics, social analytics, and simulation. Prereq: MBA 753 and open to MSBA students or with permission of the instructor.

MIS 770. Information Resources Management. 3 Credits.

Role of information resources in supporting organizational functions by providing a managerial perspective on use, design, and evaluation of information systems; use of information technologies for making and communicating decisions, and interacting with business functions. Prereq: Departmental approval.

MIS 790. Graduate Seminar. 1-5 Credits.

MIS 793. Indiv Study/Tutorial. 1-5 Credits.

MIS 795. Field Experience. 1-15 Credits.

MIS 796. Special Topics. 1-5 Credits.