Management Information Systems (MIS270)

This course introduces undergraduate students to the fundamentals of Management Information Systems (MIS) and their role in modern business environments. It focuses on how information systems support processes, improve decision-making, create competitive advantage, and enable e-commerce and collaboration. Key topics include hardware and software, databases, networking, the Internet, cybersecurity, and systems design, with an emphasis on practical application. It also highlights the integration of IT with core business disciplines and prepares students to use it strategically and ethically in their careers.

Introduction to Artificial Intelligence and Business Analytics (MIS 271)

This course introduces the role of business analytics and artificial intelligence in supporting data-driven decision making in modern organizations. It explains how value is created by defining questions, collecting data, analyzing information, and reporting results using the SOAR model. It focuses on five types of analytics: descriptive, diagnostic, predictive, prescriptive, and advanced to support managerial decisions. It also examines data sources, structures, preparation, and key issues of data ethics, privacy and security. The course applies these concepts across business functions and introduces advanced analytics such as machine learning and automation.

Enterprise Systems (MIS 372)

This elective course introduces the key components, functionalities, and implementation considerations of enterprise systems (ES). It explores how organizations use ES, especially ERP systems, to integrate processes, improve performance, and support decision making. The course covers functional modules, system architecture, vendor evaluation, and global implementation challenges. It emphasizes real-world case studies and hands-on ERP simulation activities to apply concepts in a practical context. It also enables students to gain deeper insights into enterprise-wide digital platforms.

Business Database Systems (MIS 375)

This course introduces students to the concepts and practices of database management systems, with a focus on both theoretical and practical aspects. It emphasizes the design, development, and management of relational databases to support business needs. The course covers database architecture, relational data models, and conceptual modeling using Entity-Relationship Diagrams (ERDs). It also explains how to map ERDs into relational schemas and apply normalization techniques to improve data quality. Through practical examples, students learn to write efficient SQL queries for data definition and manipulation.

Systems Analysis and Design (MIS 377)

This course introduces key concepts in information systems development, focusing on the role of the systems analyst. It explores the System Development Life Cycle (SDLC), comparing traditional and Agile methodologies with an emphasis on Scrum. The course covers project initiation, stakeholder analysis, feasibility studies, and Agile requirements gathering. It also addresses systems modeling tools, backlog creation, and Agile implementation and testing. By the end, students are equipped with the skills to apply both traditional and Agile methods in real-world system development projects.

E-commerce (MIS 378)

This course provides an understanding of electronic commerce from both business and technology perspectives. It covers key technological components that drive its growth, including digital business models, online platforms, payment systems, security, and digital marketing strategies. It explores contemporary issues such as personalization, trust, customer experience, and ethical considerations. The course emphasizes practical applications for developing e-commerce solutions and evaluating digital platforms. It enables students to leverage technologies to enhance online business competitiveness.

Humans-Computer Interaction (MIS 470)

This course introduces the principles of Human-Computer Interaction (HCI) with an emphasis on the Design Thinking approach. It guides students in designing and evaluating user-centered systems that are usable, accessible, and inclusive. It also covers topics including user research, ideation, prototyping, and usability testing. It emphasizes applying iterative design techniques through hands-on activities and team-based projects. It enables students to use industry-standard tools and methods to solve real-world problems.

Business Process Management (MIS 471)

This course introduces the concepts, methods, and tools of Business Process Management (BPM). Students learn to analyze, model, redesign, and optimize business processes to improve organizational performance. It covers process identification, modeling using BPMN, process analysis techniques, and redesign principles. Moreover, it addresses process automation trends and their impact on operational efficiency. It emphasizes aligning processes with organizational goals and enabling digital transformation through continuous improvement.

Business Networks and Cybersecurity Management (MIS 472)

This course integrates the fundamentals of business network design with advanced cybersecurity strategies to address modern organizational challenges. Students learn to build, manage, and secure networked systems, including the Internet, cloud environments, IoT, and wireless/mobile infrastructures. It covers network architecture, threat analysis, encryption, compliance standards, and securing emerging technologies. The course emphasizes practical application using tools such as Wireshark and Packet Tracer through case studies and simulations. It highlights current trends such as zero-trust frameworks and AI-driven security while balancing operational efficiency with strong protection.

Business Intelligence (MIS 473)

This course provides a comprehensive introduction to business intelligence (BI) concepts, tools, and practices. Students explore the processes of collecting, storing, preparing, analyzing, and visualizing business data to support decision-making. It focuses on descriptive analytics, dashboard development, and key performance indicators (KPIs). The course also covers data storytelling using modern BI tools. It addresses ethical issues related to the use of data in business intelligence.

Business Analytics (MIS 474)

This course extends students' knowledge of business analytics to include predictive and descriptive modeling techniques. Students apply advanced analytical methods such as predictive analytics, association rule mining, clustering, and optimization modeling. It focuses on solving real-world business problems using these analytical approaches. The course emphasizes hands-on use of advanced analytic software tools. It also addresses ethical issues related to advanced analytics applications.

Digital Innovation & Sustainability (MIS 475)

This course introduces the concepts of digital innovation and innovative design strategies and methodologies. It focuses on sustainability as a business opportunity for developing innovative products and services. It covers principles of sustainable business, consumer needs related to sustainability, and innovation processes for sustainable solutions. The course also addresses green business trends, drivers of innovation, and sustainability challenges. By the end of the course, students are able to balance environmental, social, and economic goals while considering future needs and risks.

IS Project Management (MIS 476)

This course introduces project management principles as applied to Information Systems (IS) projects. Students learn how to initiate, plan, execute, monitor, and close projects effectively. It emphasizes analytical skills to manage project scope, risk, stakeholders, schedule, cost, resources, and integration. The course addresses project management in a technology-driven environment aligned with organizational goals. Through practical examples, students gain the skills to evaluate, control, and successfully deliver IS projects.

Graduation Project (MIS 477)

This course serves as the capstone project for the MIS program and enables students to integrate and apply their knowledge and skills in a real-world project. Students work under faculty supervision to propose, design, develop, and document a solution to a real organizational need. The project includes applying systems analysis, design, project management, and implementation using appropriate tools and methodologies. It focuses on developing a functional system or prototype that demonstrates problem-solving in a real environment. Deliverables include a working system, a prototype, a comprehensive report, a user manual, and a final presentation before a faculty committee.

Co-Op Training (MIS 479)

Students must be in their final academic semester, have completed all departmental coursework totaling at least 119 credit hours, and attend the mandatory orientation workshop prior to starting their field placement. The training is conducted in a public, private, or semi-governmental organization capable of providing structured and supervised training in management information systems, including organizations engaged in business analysis, systems analysis, IT infrastructure, data visualization, reporting, as well as digital transformation initiatives and technological solution development.