

Digital Business Strategizing (MISE 601)

This course provides a structured framework for leveraging digital technologies to support business objectives and develop effective strategies. It examines how innovations such as cloud computing, analytics, social media, IoT, and AI reshape industries, while emphasizing that the key challenge lies in determining where, when, and how to invest. The course focuses on aligning technological opportunities with strategic priorities rather than pursuing technology for its own sake. Students explore how information systems strategy integrates with business strategy to create value. By the end of the course, students will be able to evaluate digital opportunities and design strategies that leverage IT capabilities for competitive advantage.

Digital Technology and Innovation (MISE 602)

This course introduces key concepts of technological innovation and prepares students for future professional practice through active learning. It covers the fundamentals of innovation, technology-enabled innovation processes, and their impact on organizational strategy. The course also examines technology diffusion, adoption, and disruption in dynamic markets. Students explore the entrepreneurial lifecycle, opportunity identification, and methods for generating new business ideas. Learning is supported through a mix of readings, case studies, and practical discussions.

Business Requirement Analysis (MISE 603)

This course covers the fundamentals of information systems analysis and design, including planning and project selection using techniques such as PERT/CPM. It focuses on key concepts and methods for business requirements analysis, including identifying and scoping business needs. Students examine the phases of requirements analysis and how to translate business needs into system specifications. The course also introduces data and process modeling using UML. By the end, students will be able to analyze, document, and model business requirements effectively.

Big Data Management (EMIS 671)

This course provides a comprehensive introduction to managing and analyzing big data using modern tools and techniques. Students learn exploratory data analysis, data manipulation, and visualization using Python and libraries such as Pandas, NumPy, and Matplotlib. The course also covers predictive modeling using supervised and unsupervised machine learning methods.

Emphasis is placed on practical application through hands-on projects and collaborative teamwork. Ethical considerations in data management and analysis are also addressed.

User-Centric Service Design (MISE 606)

This course focuses on designing service systems that prioritize user needs and experiences. It builds on principles of human-computer interaction and introduces methods and tools for designing and evaluating user-centered services. Key topics include usability, user experience, human cognition, and design thinking. Students learn to apply user-centered design approaches to improve service effectiveness and satisfaction. The course emphasizes practical application through analysis and design activities.

Digital Project Management (MISE 607)

In this course, students will delve deep into the understanding of projects, especially those related to information technology. They will focus on core project management skills, modern tools, and techniques critical to managing digital projects. With a special focus on the agile approach, especially SCRUM, students will be equipped with the knowledge and skills necessary to navigate the unique challenges posed by digital projects.

Business Intelligence (MISE 608)

This course introduces the concepts, tools, and techniques used to transform data into actionable business insights. It covers data warehousing, data integration, and the design of dashboards and reporting systems. Students learn to analyze data using BI tools and support decision-making through data visualization and performance metrics. The course emphasizes real-world applications of business intelligence in organizational contexts. By the end, students can design and implement BI solutions to support strategic and operational decisions.

Cybersecurity in Digital Application (EMIS 672)

This course focuses on integrating cybersecurity practices into digital applications and transformation initiatives. It covers key topics such as risk management, risk assessment and controls, contingency planning, and emerging cyber threats. Students examine cyberattacks, threat

detection methods, and approaches to auditing security and privacy in organizations. The course also introduces cybersecurity considerations in areas such as cloud computing, IoT, and cyberspace. Practical insights prepare students to manage and mitigate cybersecurity risks in digital environments.

Research Project (MISE 698)

This capstone project is the culminating component of the MSc in Information Systems Management and Digitalization. It integrates theories, methods, and digital tools learned throughout the program into an applied research project. Students address real-world business challenges by developing technology-driven solutions and demonstrating their organizational impact. The project emphasizes strategic thinking, analytical rigor, and innovation. Students are encouraged to focus on organizations they are connected with to ensure practical and academic value.

Digital Leadership (MISE 609)

This course develops the skills required to lead organizations through digital transformation and innovation. It focuses on building strategic vision, technological understanding, and ethical awareness in digital contexts. Topics include agile methodologies, managing remote and hybrid teams, and data-driven decision-making. Students learn to foster innovative and inclusive organizational cultures while integrating technology into business practices. Practical applications and case studies prepare students to lead effectively in dynamic digital environments.

Advanced Topics in Digitalization (MISE 610)

This course explores advanced and emerging topics in digital transformation and their impact on modern organizations. It covers areas such as customer experience transformation, low-code/no-code development, open-source platforms, AI applications, and sustainability. Students also gain practical experience in business analytics using R. The course emphasizes aligning digital technologies with strategic objectives while fostering innovation. Case studies and applied activities help students address the organizational, ethical, and societal implications of digital transformation.

Digital Knowledge Management (MISE 611)

This course introduces knowledge management concepts, systems, and digital tools that support innovation and competitive advantage. It examines how organizations create value from digitally enabled knowledge through discovery, sharing, protection, and continuous improvement. Students explore the role of advanced technologies in supporting knowledge processes and digital collaboration. The course also addresses opportunities and challenges in managing knowledge within digital organizations. Weekly readings combine book chapters, journal articles, and case studies.

Service of Marketing (BUSE 633)

This course explores digital marketing strategies for achieving marketing success in a data-driven business environment. It examines how organizations use analytics to understand customers, manage relationships across digital channels, and create stronger brand experiences. Students learn to develop digital marketing plans that integrate SEO, SEM, social media, content, email, and e-commerce strategies. The course also explores how digital technologies shape the customer journey from awareness to loyalty. Practical emphasis is placed on targeted advertising, personalization, and data-informed decision-making.

Electronic Commerce (BUSE 644)

This course introduces the principles of electronic commerce from a business perspective and examines how information technology enables online business and trade. It covers e-commerce infrastructure, business models, security, payment systems, digital marketing, and the social, ethical, and legal issues of online commerce. Students also explore the role of e-commerce across enterprises, governments, and industries. The course highlights the impact of digital technologies on customers, practitioners, and organizational strategy. By the end, students understand how to apply e-commerce concepts in real business settings.