

MANAGEMENT INFORMATION SYSTEMS / MASTER OF SCIENCE

Please see College of Business (<https://catalog.lewisu.edu/graduate/business/>) for additional policy and procedure information.

The Master of Science in Management Information Systems (MS-MIS) is a STEM-designated program that integrates advanced technical expertise with business and leadership skills, preparing graduates to excel in a business world undergoing a steep transformation driven by Artificial Intelligence (AI). Drawing on the strengths of the College of Business and the College of Aviation, Science & Technology, this program equips students with the knowledge and tools to innovate, enhance efficiency, and prepares them for leadership roles in business digital innovation, positioning them for careers such as Chief Information Officers (CIOs), Chief Technology Officers (CTOs), Chief Information Security Officers (CISOs), and other high-impact positions.

The program's goals focus on developing advanced skills to meet the demands of today's technology-driven environment. Students will master strategic technology leadership, data analytics, and cybersecurity, with a particular emphasis on AI applications for business. Designed for both professionals and recent graduates, the MS-MIS prepares individuals to lead in a rapidly evolving field by fostering expertise that aligns with current and future industry trends.

The program requires a total of 30 to 36 credit hours for completion, of which 6 credit hours from two foundation courses—BGEN 52000 Fundamentals of the Business Enterprise and CPSC 50100 Programming Fundamentals—can be waived for students with sufficient prior knowledge or experience. These core courses are offered jointly by faculty from business and computer science, offering graduates a well-rounded blend of technical proficiency and business acumen.

Upon graduation from this program, students will be able to:

- Design and implement effective information systems that support organizational goals
- Utilize advanced data analytics and business intelligence tools for decision-making
- Demonstrate proficiency in database management, systems integration, and cybersecurity
- Exhibit leadership and teamwork in managing IT projects
- Stay adaptable to emerging technologies and industry trends

Requirements

Degree Offered: Master of Science

Total Credit Hours: 30-36

degree requirements

Code	Title	Hours
Foundation Courses		
BGEN 52000	Fundamentals of the Business Enterprise ¹	3
CPSC 50100	Programming Fundamentals ²	3
Core Courses		
BSAN 50500	Business Forecasting & Visualization	3

BSAN 53800	Visualizing Information	3
DATA 54000	Large-Scale Data Storage Systems	3
INSY 55000	Operations and Organization Security	3
DATA 51100	Statistical Programming	3
CPSC 57600	Applied AI for Business Apps	3
CPSC 57700	Machine Learning Operations	3
BSAN 52100	Systems Analysis and Design	3
BSAN 52500	Enterprise Data Warehousing and Decision Support	3
BSAN 68500	MIS Capstone	3
Total Hours		36

¹ Required for Non-Business undergraduate graduates

² Required for Non-CaMS undergraduate graduates