

Master of Science in Digital Innovation

Graduates of the Master of Science in Digital Innovation program will be able to architect and design secure systems infrastructure solutions that form the foundation of analytics-driven organizational systems. Courses in enterprise architecture and cybersecurity are particularly important for preparing students for organizational roles in which they will be responsible for designing, building, and acquiring technical solutions that enable effective and efficient use of analytics capabilities for enabling new business solutions. These infrastructure solutions are the technical foundation for digital innovation.

Graduates of the MSDI program will be able to plan, analyze, and design systems solutions that integrate analytics capabilities into organizational systems and will have programming, systems development, and related modeling competencies that will enable them to apply computational and algorithmic thinking to solving analytical problems in an automated way.

Course	Title	Credits
Pre-program Foundation Requirement		
GR 521	Managerial Statistics	
Program Requirements (33 credits)		
Core Requirements (21 credits)		
CS 602	Data-Driven Development With Python ¹	
CS 605	Data Management and SQL for Analytics	
CS 607	Cybersecurity	
CS 610	Enterprise Architecture	
CS 620	Software Project Management	
IPM 652	Managing with Analytics	
ST 625	Quantitative Analysis for Business	
Four Elective Courses (12 credits) at the 600, 700 or 800 level		
Two of the elective courses must be chosen from CS courses and two are unrestricted		
CS elective options		
CS 603	Object-Oriented Application Development	
CS 612	Web-Based Application Development	
CS 650	Data Management Architectures (Two elective courses must be chosen from CS and two electives are unrestricted)	
CS 680	Mobile Application Development	
CS 703	Looking into the Future: Automation and Digital Technologies	
CS 733	Artificial Intelligence Techniques and Applications	
CS 753	Business Intelligence Methods and Technologies	
CS 795	Special Topics Seminar	
CS 881	Computer Information Systems Internship	

¹ Students who have completed comparable coursework may be eligible to waive CS 602.

Please note: All course work must be completed within five years.