INFORMATION SYSTEMS, MS

Contact

Jeff Saltz
Program Director
(315) 443-2911
igrad@syr.edu

Website

https://ischool.syr.edu/academics/information-systems-masters-degree/

Overview

Information has a powerful effect on the contemporary enterprise. Digital innovation and ever-rising competitive pressure confront the strategist with complex new challenges every day. In such environments, technically-skilled professionals can promote sustained value creation and enterprise resiliency through mastery of key elements – digital technologies, big data, and policy - that shape strategic decision-making on the ground.

The Master of Science in Information Systems (MSIS) graduate degree program at the iSchool is designed to help students master the complexities of digital transformation. Through rigorous coursework and hands-on critical engagement of challenges in the classroom and in the field, MSIS students learn by designing and developing digital applications, devising management strategy, crunching big data for insights, and evaluating the implications of policy from economic, social, and ethical perspectives.

The iSchool at Syracuse University is a leading center for defining both the theory and practice of information and technology management. The MSIS graduate program, like the iSchool itself, is highly interdisciplinary in focus, combining interests in digital technology, enterprise strategy, organizational psychology and design, data analytics, public policy, and human-computer interaction.

Professional Values and Competencies

MSIS graduates acquire skills in management and organizational change, solution analysis and design, communication and collaboration, business process improvement, and applied information technology. Our graduates learn to approach challenges with strategic vision, while ensuring that technology solutions integrate with enterprise goals.

Student Learning Outcomes

After completing the program, students will be able to:

1. Create information systems solutions for organizations and individuals
2. Apply principles of management strategy, economics, finance, and information systems to support how organizations add value
3. Analyze implications of professional decisions from the viewpoint of fairness, accountability, transparency, and ecological sustainability
4. Explain how public policy and socio-economic forces influence professional decision-making
5. Design communications for various purposes and audiences
6. Demonstrate leadership and collaboration skills in professional practice

Code	Title	Credits
Required Core		
Students must take IST614, IST621, and IST654. Student choose either IST 651 or IST659.		
IST 614 & IST 621 & IST 654	Information Technology Management and Policy and Information Management and Technology and Information Systems Analysis	9
IST 651	Scripting for Enterprise Data Systems	3
or IST 659	Data Administration Concepts and Database Management	
Concentration		
Concentrations allow students to select course work that matches their professional interests and planned career paths. Students are required to select one concentration below, and complete three classes, or 9 credits, from that concentration.		
Electives		
Students must select 3 additional courses to count towards their electives. Students can choose from the following:		
An additional concentration		
Any IST course 600-level or higher		
OR		
any non-IST graduate level course, approved by petition		
Exit Requirement [1]		
Students register for IST 755, the MSIS Capstone course, after the successful completion of IST 614 and at least 24 credits in the degree program. Students register for IST 971 halfway through their program of study. Students with one or more years of full-time professional experience in the information technology field may substitute the internship requirement for another graduate level IST course for three credits and must follow the iSchool petition process for approval.		6
IST 755	Information Systems Capstone	
IST 971	Information Systems Internship	

Cloud

Code	Title	Credits
Understand enterprise use of scalable cloud infrastructure		
Students who choose this concentration, cannot count IST651 towards the required core		
IST 615	Cloud Management	3
IST 651	Scripting for Enterprise Data Systems	3
IST 714	Cloud Architecture	3

Cybersecurity

Code	Title	Credits
Protect systems and data against cyber threats and vulnerabilities		
IST 623	Introduction to Information Security	3
IST 636	Leading Issues in Information Security	3
IST 728	Information Security Policy	3

Digital Transformation

Code	Title	Credits
Adopt new technologies to drive organizational innovation		
IST 608	Blockchain Management	3

IST 629	Technology and the Future of Work	3
IST 688	Building Human Centered AI Applications	3

Data Pipelines and Storage

Code	Title	Credits
Design systems to collect, process, and store data		
IST 652	Scripting for Data Analysis	3
IST 659	Data Administration Concepts and Database Management	3
IST 722	Data Warehouse	3
IST 769	Advanced Big Data Management	3

Data Science

Code	Title	Credits
Analyze data to derive predictive and actionable insights		
IST 652	Scripting for Data Analysis	3
IST 687	Introduction to Data Science	3
IST 707	Applied Machine Learning	3
IST 718	Big Data Analytics	3

Information Risk and Policy

Code	Title	Credits
Address organizational risk via security and compliance policies		
IST 618	Information Policy	3
IST 623	Introduction to Information Security	3
IST 625	Enterprise Risk Management	3
IST 728	Information Security Policy	3

Information Insights & Applications

Code	Title	Credits
Turn data into actionable insights through visualization		
IST 649	Human Interaction with Computers	3
IST 719	Information Visualization	3
IST 737	Visual Analytic Dashboards	3

Project and Team Management

Code	Title	Credits
Manage ethical, effective, and successful team-driven projects		
IST 644	Managing Data Science Projects	3
IST 645	Managing Information Systems Projects	3
IST 682	Cultural Competence for Information Professionals	3