

INFORMATION SYSTEMS, MASTER OF SCIENCE

Information systems and technologies are revolutionizing the way we live and work. The rapid pace of technological advances requires a new generation of talented and tech-savvy business leaders who possess a framework of foundational knowledge to anticipate and manage change and recognize opportunities for business value creation by adapting and implementing new technologies. The Master of Science in Information Systems (MSIS) program at Johns Hopkins Carey Business School prepares students to lead IT initiatives aimed at organizational success, providing secure infrastructure platforms and breakthrough strategic advantage.

The MSIS program is designed for:

- Students who want to advance their career into leadership (CXO, CTO, CIO) roles in their organizations or start their own business or consultancy.
- Business professionals who want to leverage their expertise in technological, managerial and leadership positions, recognizing that advances in IT are changing every part of any organization.
- Recent graduates who want to learn how information and related technologies can be decisive factors for organizations to succeed in the global marketplace.

The MSIS curriculum reflects the latest IS research and industry best practices.

The program curriculum bridges technology and business with coursework in: artificial intelligence, machine and deep learning, distributed computing, cybersecurity and data vulnerability, data sciences and business intelligence, data networks (telecommunications) infrastructures, emerging technologies, big data analytics, cloud and mobile technologies, IT development and global sourcing strategies, enterprise architecture, and project management. The MSIS core spans the foundational breadth of information systems and technologies, from hands-on experience with web services to high-level digital strategy. Elective courses provide students the flexibility to specialize the program to address personal and career objectives.

Program Requirements

The program requires 36 credits. Full-time MS students must complete the program in three semesters: fall, spring, and summer. Course waivers are not granted.

Curriculum

The curriculum for the MSIS program includes the following courses. Course sequence and availability of specific electives may vary. Students must consult with an academic advisor to ensure that they take courses in the approved sequence. All courses are 2 credits.

Code	Title	Credits
Business Foundations		
BU.520.601	Business Analytics	2
BU.120.601	Business Communication	2
BU.131.601	Business Leadership and Human Values	2
BU.350.620	Information Systems	2
BU.510.601	Statistical Analysis	2

Functional Core

BU.330.750	AI: Principles and Business Applications	2
BU.330.790	Applied IS Architecture	2
BU.330.705	Data Networks: Infrastructures & Emerging Technologies	2
BU.330.780	Data Science and Business Intelligence	2
BU.330.740	Large Scale Computing on the Cloud	2
BU.300.620	Managing Complex Projects	2
BU.330.730	Cybersecurity	2

Elective Courses

Select six of the following:		12
BU.142.620	Leadership in Organizations	
BU.210.620	Accounting and Financial Reporting	
BU.300.700	Developing Internet Systems and Services	
BU.330.710	Cybersecurity and Data Vulnerabilities	
BU.330.760	Deep Learning with Unstructured Data	
BU.330.770	Database Management	
BU.350.710	IT and Global Sourcing Strategy	
BU.410.620	Marketing Management	
BU.510.615	Python for Data Analysis	
BU.510.650	Data Analytics	
BU.520.620	Advanced Business Analytics	
BU.520.710	Big Data Machine Learning	
BU.610.615	Simulation for Business Applications	
BU.680.620	Operations Management	
BU.883.702	Health Information Technology	

Total Credits 36

In addition to the elective courses listed above, MSIS students can select up to 2 courses (maximum 4 credits) from any area as part of the 12 elective credits. These courses must be approved by an academic advisor. The advisor-approved electives provide flexibility for students in tailoring their MSIS program.