Information Systems, MSIS (Arlington)

We offer cutting-edge expertise in a variety of courses that combine technological advances and business practices. We stress creative and inventive approaches to problem solving, which necessitates empowering students so that they can take charge of their own software projects to become originally productive. Our information systems program (https://coe.northeastern.edu/academics-experiential-learning/academic-departments/mgen/ms-insy/) is as much an art as a science. It bypasses mechanical learning and highlights the value and excitement of engineering thinking that gets things done efficiently as well as imaginatively. We balance theory and practice, on the premise that they are always intertwined and interdependent.

We seek to provide a basic foundation for our students and then seek to push them to new heights to advance their information technology skills in a way that keeps up and, better yet, exceeds the necessarily fast pace of this progressive field. It is not for us just a question of not being left behind; we strive to be at the forefront of software innovation in an effort to transform contemporary society even more radically than technology has already done—to take gigantic strides in business, medicine, education, and security.

The program offers a wide range of courses that reflect current and future industry trends:

- Cryptocurrency and Smart Contract Engineering
- Engineering of Big-Data Systems
- Business Intelligence and Data Analytics
- Cyber-Security Engineering and Development
- Digital Business
- Full-Stack Software Engineering
- User Experience Design
- Data Science and Machine Learning Systems Engineering

Program Requirements

Complete all courses and requirements listed below unless otherwise indicated.

Core Requirements

Code	Title	Hours
INFO 5100 and INFO 5101	Application Engineering and Development and Lab for INFO 5100	4

Options

Complete one of the following options:

COURSEWORK OPTION

Code	Title	Hours
Complete 16 semester hours from the Restricted Electives course list below. (p. 2)		16
Complete 12 semester hours from the Other Electives course list below. (p. 2)		12

PROJECT OPTION

Code	Title	Hours
INFO 7945	Master's Project	4
Complete 24 semester hours from the Electives course list below. A minimum of 16 semester hours must be INFO courses.		24

THESIS OPTION

Code	Title	Hours
INFO 7945	Master's Project	4
INFO 7990	Thesis	4
Complete 20 semester hours from the Electives course list below. A minimum of 16 semester hours must be INFO courses.		20
In addition to completing the thesis course, students must successfully complete the thesis submission process, including securing Committee and Graduate School of Engineering signatures and submission of an electronic copy of their MS Thesis to ProQuest.		

Restricted Electives Course List

Code	Title	Hours
Complete courses from the following subject code:		
INFO		

Other Electives Course List

Code	Title	Hours
Complete courses from any of the following subject codes:		
CSYE (except CSYE 6220)		
DAMG		
INFO		
TELE		

Optional Co-op Experience

Code	Title	Hours
Complete the following. Students must complete ENCP 6000 to qualify for co-op experience:		
ENCP 6000	Career Management for Engineers	1
ENCP 6964	Co-op Work Experience	0
or ENCP 6954	Co-op Work Experience - Half-Time	
or ENCP 6955	Co-op Work Experience Abroad - Half-Time	
or ENCP 6965	Co-op Work Experience Abroad	

Program Credit/GPA Requirements

32 total semester hours required (33 with optional co-op)
Minimum 3.000 GPA required