Information Systems, MSIS (Seattle)

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.

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

Coursework

Code	Title	Hours
Complete 28 semester hours from the electives course list below. (p. 1)		28

Program Credit/GPA Requirements

32 total semester hours required
Minimum 3.000 GPA required

Electives

Code	Title	Hours
CSYE 6205	Concepts of Object-Oriented Design with C++	
CSYE 6225	Network Structures and Cloud Computing	
CSYE 6230	Operating Systems	
CSYE 6305	Introduction to Quantum Computing with Applications	
CSYE 7125	Advanced Cloud Computing	
CSYE 7230	Software Engineering	
CSYE 7280	User Experience Design and Testing	
CSYE 7374	Special Topics in Computer Systems Engineering	
CSYE 7380	Theory and Practical Applications of AI Generative Modeling	
DAMG 6105	Data Science Engineering with Python	
DAMG 6210	Data Management and Database Design	
DAMG 7245	Big-Data Systems and Intelligence Analytics	
DAMG 7250	Big Data Architecture and Governance	
DAMG 7275	Advanced Database Management Systems	
DAMG 7370	Designing Advanced Data Architectures for Business Intelligence	
DAMG 7374	Special Topics in Data Architecture and Management	
ENCP 6000	Career Management for Engineers	
INFO 6105	Data Science Engineering Methods and Tools	
INFO 6150	Web Design and User Experience Engineering	
INFO 6205	Program Structure and Algorithms	
INFO 6215	Business Analysis and Information Engineering	
INFO 6245	Planning and Managing Information Systems Development	

INFO 6250 and INFO 6251	Web Development Tools and Methods and Lab for INFO 6250
INFO 6255	Software Quality Control and Management
INFO 6350	Smartphones-Based Web Development
INFO 6660	Business Ethics and Intellectual Property for Engineers
INFO 7225	Accounting and Budgetary Systems for Engineers
INFO 7245	Agile Software Development
INFO 7250	Engineering of Big-Data Systems
INFO 7255	Advanced Big-Data Applications and Indexing Techniques
INFO 7260	Business Process Engineering
INFO 7285	Organizational Change and IT
INFO 7374	Special Topics in Information Systems
INFO 7375	Special Topics in Artificial Intelligence Engineering and Applications
INFO 7380	User Experience Design for Healthcare Applications
INFO 7385	Managerial Communications for Engineers
INFO 7390	Advances in Data Sciences and Architecture
INFO 7500	Cryptocurrency and Smart Contract Engineering
INFO 7510	Smart Contract Application Engineering and Development
INFO 7610	Special Topics in Natural Language Engineering Methods and Tools
INFO 7945	Master's Project
INFO 7976	Directed Study
INFO 7990	Thesis