Information Systems, MSIS—Bridge (Seattle)

The Master of Science in Information Systems—Bridge (https://coe.northeastern.edu/academics-experiential-learning/academic-departments/mgen/ms-insy-bridge/) (MSIS-Bridge) addresses the needs of the digital revolution by preparing students with non–STEM, nontechnical bachelor's degrees to become information systems professionals. MSIS-Bridge students are the link between business users and technologists. As industries launch into a digitized future, professionals with a clear understanding of how technology can be used to address significant societal challenges are in demand. The MSIS-Bridge program closes the gaps between business management, software engineering, and information technology to help students solve complex real-world issues in business and society. It also upskills and reskills to help individuals or businesses identify organizational skills gaps and create a tactical training plan to fill them with new skills and knowledge. Through specially created and selected core courses, students gain the engineering foundation needed to excel in the classroom and in the IT sector.

Program Requirements

Complete all courses and requirements listed below unless otherwise indicated.

Core Requirements

Code	Title	Hours
INFO 5001	Application Modeling and Design	4
INFO 5002	Introduction to Python for Information Systems	4
INFO 5100 and INFO 5101	Application Engineering and Development and Lab for INFO 5100	4

Restricted Electives

Code	Title	Hours
Complete 12 semester hours from the following:		12
DAMG 6210	Data Management and Database Design	
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 6255	Software Quality Control and Management	
INFO 6350	Smartphones-Based Web Development	
INFO 7245	Agile Software Development	
INFO 7385	Managerial Communications for Engineers	

Electives

Code	Title	Hours
Complete 16 semester hours from the following:		16
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 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 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 6250 and INFO 6251	Web Development Tools and Methods and Lab for INFO 6250	

INFO 6660	Business Ethics and Intellectual Property for Engineers
INFO 7225	Accounting and Budgetary Systems for Engineers
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 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 7990	Thesis
INFO 7976	Directed Study

Program Credit/GPA Requirements

40 total semester hours required
Minimum 3.000 GPA required