Geospatial Services, MPS

The Northeastern University MPS in Geospatial Services program is designed for working professionals striving to maintain competitive, leading-edge capabilities at a time of rapidly growing utilization of geospatial data for diversity of government and business intelligence needs. Program strengths are highly correlated with geospatial workforce requirements as identified by geospatial enterprise leaders from government and industry. Our curriculum incorporates tools, technologies, and services required in three primary sectors:

- *Location-based geodata* (collect, manage, distribute spatial information and imagery)
- *Geo-applications and devices* (devices and software for creating, visualizing, and sharing geospatial information)
- *Geo-expert industries* (turn location-based information into insights for commercial and government organizations)

Available 100 percent online and built to Northeastern University's high academic standards, our program's experiential focus emphasizes the connections between learning and workplace needs.

Program Requirements

Complete all courses and requirements listed below unless otherwise indicated.

Required Courses

Code	Title	Hours
GIS 5103	Foundations of Geographic Information Science	4
GIS 5201	Advanced Spatial Analysis	3
GIS 6980	Capstone	4
RMS 5105	Fundamentals of Remote Sensing	3
Complete two of the following:		6-7
EAI 6000	Fundamentals of Artificial Intelligence	
ITC 6045	Information Technology Policy, Ethics, and Social Responsibility	
ITC 6300	Foundations of Information Security	
ITC 6460	Cloud Analytics	
PJM 5900	Foundations of Project Management	

The remaining quarter hours required for the program may be completed by a combination of completing a concentration and additional electives or selecting any courses listed in the concentrations and electives.

Concentrations

- Geographic Information Systems (p. 1)
- Geospatial Analytics (p. 2)
- Remote Sensing (p. 2)

Electives

Code	Title	Hours
COP 6940	Personal and Career Development	3-4
EAI 6000	Fundamentals of Artificial Intelligence	3
EDU 6184	Interdisciplinary Foundations	2
INT 6940	Experiential Learning Projects for Professionals	1-4

Program Credit/GPA Requirements

45 total quarter hours required
Minimum 3.000 GPA required

GEOGRAPHIC INFORMATION SYSTEMS

Code	Title	Hours
Complete six of the following:		18
GIS 6320	Use and Applications of Free and Open-Source GIS Desktop Software	
GIS 6340	GIS Customization	
GIS 6345	Geospatial Programming	
GIS 6350	Planning a GIS Implementation	

GIS 6360	Spatial Databases
GIS 6370	Internet-Based GIS
GIS 6385	GIS/Cartography
GIS 6983	Topics
ITC 6480	Amazon Web Service (AWS) Cloud Architecting

GEOSPATIAL ANALYTICS

Code	Title	Hours
Complete the following:		18
ALY 6020	Predictive Analytics	
ALY 6040	Data Mining Applications	
ALY 6030	Data Warehousing and SQL	
ALY 6070	Communication and Visualization for Data Analytics	
ALY 6110	Data Management and Big Data	
ALY 6983	Topics	

REMOTE SENSING

Code	Title	Hours
RMS 6110	Introduction to Machine Learning for Image Data	3
Complete five of the following:		15-16
GIS 6345	Geospatial Programming	
ITC 6480	Amazon Web Service (AWS) Cloud Architecting	
RMS 6240	Introduction to Radar and LiDAR Remote Sensing	
RMS 6280	Automated Feature Extraction for the Geospatial Professional	
RMS 6290	Spectroscopic Image Analysis	
RMS 6983	Topics	