Applied AI—Connect, MPS (Boston)

The Master of Professional Studies in Applied AI—Connect program is designed for students without prior experience in engineering, computer technology, or statistics. The program requires an additional 9 semester hours of coursework that provide the intensive, hands-on instruction necessary for students considering a career change to artificial intelligence, connecting the student's current background to artificial intelligence applications.

For the 2025–2026 academic year, the MPS Applied AI—Connect program is being offered as a collaboration between the College of Professional Studies and the Office of the Provost. During this period, students will follow Northeastern University's Graduate Academic Calendar and be governed by the academic policies and procedures documented in the university's Graduate Catalog (https://catalog.northeastern.edu/graduate/academic-policies-procedures/).

During the time a student is designated under the Office of the Provost, the College of Professional Studies will provide each student with full academic and student support services (e.g., academic advising services, co-op and career advising services, International Tutoring Center, etc.).

Beginning in the 2026–2027 academic year, students enrolled in the MPS Applied AI—Connect program will transition to the College of Professional Studies, and their official college designation will be updated accordingly in the academic system of record. At that time, students will be governed by the academic policies and procedures documented in the university's Graduate Catalog (https://catalog.northeastern.edu/graduate/professional-studies/), specifically relating to the College of Professional Studies.

Program Requirements

Connect Courses

Code	Title	Hours
AAI 5015	Mathematical Concepts	3
AAI 5025	Python	3
AAI 5035	Research Methods and Scientific Writing	3

Core Courses

Code	Title	Hours
Complete the following:		
AAI 6600	Applied Artificial Intelligence	3
AAI 6610	Applied Machine Learning	3
AAI 6620	Applied Natural Language Processing	3
AAI 6630	Applied Computer Vision	3
Restricted Electives		**6**
AAI 6640	Applied Deep Learning	
AAI 6650	Recommender System	
AAI 6655	Prompt Engineering	
AAI 6665	Generative Artificial Intelligence	
AAI 6740	Applied Reinforcement Learning	
AAI 6790	Applied Quantum AI	
AAI 6850	Applied Blockchain AI	
AAI 6900	AI for Autonomous Systems	
AAI 6983	Special Research Topics in AI	
Capstone		
AAI 6980	Integrated Experiential Capstone	4

Concentration or Electives Option

A concentration is not required. Students may complete the electives option in lieu of a concentration.

- AI for 3D Imaging (p. 2)
- Conversational AI and Chatbots (p. 2)
- Machine Learning for Cybersecurity (p. 2)
- Electives Option (p. 2)

Program Credit/GPA Requirements

43 total semester hours required

Minimum 3.000 GPA required

AI FOR 3D IMAGING CONCENTRATION

Code	Title	Hours
Code	**Title**	**Hours**
Complete the following:		
AAI 6710	Graph Signal Processing	3
AAI 6720	Graph Neural Networks	3
AAI 6730	Deep Learning for 3D Point Cloud Analysis	3
Complete one of the following:		3
AAI 6640	Applied Deep Learning	
AAI 6650	Recommender System	
AAI 6665	Generative Artificial Intelligence	
AAI 6740	Applied Reinforcement Learning	
AAI 6790	Applied Quantum AI	
AAI 6850	Applied Blockchain AI	
AAI 6900	AI for Autonomous Systems	

CONVERSATIONAL AI AND CHATBOTS CONCENTRATION

Code	Title	Hours
Code	**Title**	**Hours**
Complete the following:		
AAI 6660	Chatbot Architecture	3
AAI 6670	Chatbot Application	3
Complete two of the following:		6
AAI 6640	Applied Deep Learning	
AAI 6650	Recommender System	
AAI 6655	Prompt Engineering	
AAI 6665	Generative Artificial Intelligence	
AAI 6740	Applied Reinforcement Learning	
AAI 6790	Applied Quantum AI	
AAI 6850	Applied Blockchain AI	
AAI 6900	AI for Autonomous Systems	

MACHINE LEARNING FOR CYBERSECURITY CONCENTRATION

Code	Title	Hours
Code	**Title**	**Hours**
Complete the following:		
AAI 6680	AI for Cybersecurity	3
AAI 6690	Machine Learning for Cyberdetection	3
Complete two of the following:		6
AAI 6640	Applied Deep Learning	
AAI 6650	Recommender System	
AAI 6665	Generative Artificial Intelligence	
AAI 6740	Applied Reinforcement Learning	
AAI 6790	Applied Quantum AI	
AAI 6850	Applied Blockchain AI	
AAI 6900	AI for Autonomous Systems	

ELECTIVES OPTION

Code	Title	Hours
Code	**Title**	**Hours**

Complete any College of Professional Studies graduate-level courses, unused courses in this program, or a combination of both in lieu of a concentration to meet total program required semester hours.