

# Applied AI—Connect, MPS (Toronto)

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.

## 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

Complete 6 semester hours from 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	
AAI 6983	Special Research Topics in AI	

### Capstone

AAI 6980	Integrated Experiential Capstone	4
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### 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. 3)

### Optional Experiential Learning Opportunities

The College of Professional Studies encourages its students to incorporate optional experiential learning opportunities in their academic plans.

Code	Title	Hours
<b>Co-op</b>		
This option requires 1 additional semester hour of credit and tuition in addition to this program's required credit hours.		
INT 6200	Experiential Project Preparation	1
COP 6945	Co-op Work Experience—Full Time	0
or COP 6946	Global Co-op Work Experience—Full Time	
or COP 6954	Co-op Work Experience - Half-Time	

**Integrative Experiential Learning**

This option substitutes for 3 semester hours of restricted elective credits in programs that require at least 3 semester hours of restricted elective credits. If the student has already completed the program's restricted electives or the program does not have an elective requirement, this option requires 3 additional hours of credit and tuition in addition to this program's required credit hours.

INT 6943	Integrative Experiential Learning	3
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**Program Credit/GPA Requirements**

43 total semester hours required

Minimum 3.000 GPA required

**AI FOR 3D IMAGING CONCENTRATION**

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:		
AAI 6640	Applied Deep Learning	3
AAI 6650	Recommender System	3
AAI 6665	Generative Artificial Intelligence	3
AAI 6740	Applied Reinforcement Learning	3
AAI 6790	Applied Quantum AI	3
AAI 6850	Applied Blockchain AI	3
AAI 6900	AI for Autonomous Systems	3

**CONVERSATIONAL AI AND CHATBOTS CONCENTRATION**

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

**MACHINE LEARNING FOR CYBERSECURITY CONCENTRATION**

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

**ELECTIVES OPTION**

Code	Title	Hours
Complete any College of Professional Studies courses unused in the program in lieu of a specified concentration to meet total program required semester hours		