

# ARTIFICIAL INTELLIGENCE, MS

Campus: NYC

The program is designed for students with strong programming and mathematical skills with a degree in computing or relevant area. Students with a degree in another area will be able to enroll in the program after having taken up to 3 bridge courses. The bridge courses do NOT count toward the degree; grades earned however are computed into the student's QPA.

## BRIDGE Courses (0-9 credits)

Code	Title	Credits
CS 608	Algorithms and Computing Theory	3
CS 660	Mathematical Foundations of Analytics	3
CS 661	Python Programming	3

## CORE REQUIREMENTS (6 credits)

Code	Title	Credits
CS 627	Artificial Intelligence	3
or CS 727	Advanced Artificial Intelligence	
CS 677	Machine Learning	3
or CS 755	Advanced Pattern Recognition and Machine Learning	

**Total Credits** 6

## AI and Analytics Electives (9 credits)

Students will choose courses from the list of AI and Analytics Electives.

Code	Title	Credits
Elective 1		3
Elective 2		3
Elective 3		3

**Total Credits** 9

## Psychology Electives (6 credits)

Students will choose courses from the list of Psychology Electives.

Code	Title	Credits
Elective 1		3
Elective 2		3

**Total Credits** 6

## Seidenberg Electives (3-6 credits)

Select 3 or 6 credit hours of 600-level and above Computer Science and Information Systems courses, 3 credits if thesis option is chosen, 6 credits if capstone project option is chosen.

Code	Title	Credits
Seidenberg Elective 1		3
Seidenberg Elective 2 (unless student is completing Thesis I & II)		3

**Total Credits** 6

## CAPSTONE (3-6 credits)

Students are required to select one of the following options, the Analytics Capstone Project (3 credits - last semester) or Thesis (6 credits, last 2 semesters). Pursuing a thesis requires the student to work on a research project under the supervision of a professor.

Code	Title	Credits
CS 668	Analytics Capstone Project	3
Seidenberg Elective		3

**OR**

CS 693	Thesis I	3
CS 694	Thesis II	3

**Total Credits: 30****Available Electives**

Please note that the AI and Analytics electives as well as the Seidenberg electives lists will evolve based on new offerings.

<b>Code</b>	<b>Title</b>	<b>Credits</b>
<b>AI AND ANALYTICS ELECTIVES</b>		
CS 619	Data Mining	3
CS 631V	Topic: Intelligent Agents	3
CS 632Q	Topic: Introduction to Natural Language Processing	3
CS 655	Pattern Recognition	3
CS 671	Computer Vision	3
CS 672	Introduction to Deep Learning	3
CS 675	Introduction to Data Science	3
CS 676	Algorithms for Data Science	3
CS 696C	Topic: AI Ethics	3
CS 727	Advanced Artificial Intelligence	3
CS 740	Advanced Computer Vision	3
CS 755	Advanced Pattern Recognition and Machine Learning	3
CS 619	Data Mining	3
CS 631V	Topic: Intelligent Agents	3
CS 632Q	Topic: Introduction to Natural Language Processing	3
CS 655	Pattern Recognition	3
CS 671	Computer Vision	3
CS 672	Introduction to Deep Learning	3
CS 696G	Topic: Generative AI	3
<b>PSYCHOLOGY ELECTIVES</b>		
PSY 612	Neuropsychology	3
PSY 617	Human Learning	3
PSY 624	Cognitive Psychology	3
<b>SEIDENBERG ELECTIVES</b>		
CS 601C	Computational Statistics	3
CS 604	Computer Systems and Concepts	3
CS 610	Introduction to Parallel Computing	3
CS 612	Concepts and Structures in Internet Computing	3
CS 617	Game Programming	3
CS 623	Database Management Systems	3
CS 629	Computer Graphics	3
CS 633	Data Communications and Networks	3
CS 634	Computer Networking and the Internet	3
CS 639	Mobile Application Development	3
CS 641	Mobile Web Content and Development	3
CS 663	Human Factors and Usability Metrics	3
CS 667	Practical Data Science	3
CS 673	Scalable Databases	3
IS 614	Applied Artificial Intelligence	3
IS 641	Information Security and Controls	3
IS 668	Foundation of Geographic Information Systems	3
IS 679	Cognitive Science and Technology	3

IS 684	Web Mining	3
IS 685	Ethical Issues in Artificial Intelligence	3
IS 687	Social and Collaborative Computing	3
IS 689	Human-AI Interaction	3
IS 690E	Topic: Information Architecture	3
IS 690J	Topics: Virtual and Immersive Experience Design	3