ARTIFICIAL INTELLIGENCE, MS

Campus: NYC

During this 30-credit program, students develop a strong foundation in the theoretical principles and practical techniques that drive modern artificial intelligence innovation. The program is designed to prepare graduates not only to apply existing AI methods but also to develop new approaches that advance the field. Through close engagement with faculty and hands-on learning experiences, students build the expertise needed to solve complex, real-world problems using intelligent systems.

Reflecting the interdisciplinary nature of artificial intelligence, the curriculum integrates perspectives from computer science, psychology, information systems, and other related disciplines offered at Pace. The program is intended for students with strong programming and mathematical backgrounds, typically holding degrees in computing or closely related fields. Students from other academic backgrounds may enter the program after completing bridge coursework to ensure readiness for advanced study.

As AI continues to evolve rapidly, the program's structure allows students to adapt to emerging technologies and industry demands. Courses are offered on campus, providing an immersive learning environment with direct access to faculty mentorship and university resources.

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.

Code	Title	Credits
AI AND ANALYTICS ELECTIVES		
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
PSYCHOLOGY ELECTIVES		
PSY 612	Neuropsychology	3
PSY 617	Human Learning	3
PSY 624	Cognitive Psychology	3
SEIDENBERG ELECTIVES		
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