

Foundations of AI Agents

Syllabus (2026)



Time: Second Half of Spring 2026, starting on March 31
Class Meets on Tuesdays, 9AM to 11:50AM

Instructors: Professor Srikanth Jagabathula
Professor Ilan Lobel

Learning Objectives: AI is quickly transforming the world of business, and understanding the language of AI and the basics of how AI works are increasingly becoming table stakes for a wide variety of jobs. This will be the focus of the first half of the course.

The second half of the course will focus on AI agents, which take LLMs from passive chatbots to active agents taking actions in the real world to improve processes and workflows of companies. We will explore what are the underlying principles of building an AI agent, and the course will culminate with building an AI agent to solve a business problem.

Course Format: We are planning for a highly interactive course format. Students should bring a laptop to class and expect that a significant part of the course will be in a hands-on, lab format.

Course Contents: The first half of the course will focus on how AI systems work, while the second half of the course will focus on agentic systems.

1. Basics of AI systems: Neural networks, unstructured data and embeddings, LLMs and how generative AI works, in-context learning, RAGs, supervised fine-tuning.
2. How agentic AI works: Reinforcement learning, reasoning models, tool calling, agentic planning, how to build an AI agent to solve a business problem.

Note: The precise course contents are subject to change. Given the fast pace of change in the world of AI, we might make last minute changes to the list of topics covered.

Grading: The course grade will have two components. The first will be a participation grade based on in-class participation. The second, and larger, component of the grade will be based on the main class deliverable, which will be a final project where students will build an AI system to tackle a business problem.

Course Requirements: There are no formal pre-requisites. But students need to be ready and willing to do some coding. Students who have a limited coding background are allowed to take the course as utilizing AI for coding assistance will be allowed.

STERN SCHOOLWIDE SYLLABUS REQUIRED SECTIONS

Student Accessibility

If you will require academic accommodation of any kind during this course, you must notify me at the beginning of the course (or as soon as your need arises) and provide a letter from the Moses Center for Student Accessibility (212-998-4980, mosescsa@nyu.edu) verifying your registration and outlining the accommodations they recommend. For more information, visit the CSA website:

<https://www.nyu.edu/students/communities-and-groups/student-accessibility.html>

Student Wellness

Classes can get stressful. I encourage you to reach out if you need help. The NYU Wellness Exchange offers mental health support. You can reach them 24/7 at [212 443 9999](tel:2124439999), or via the “NYU Wellness Exchange” app. There are also drop in hours and appointments. Find out more at:

<http://www.nyu.edu/students/health-and-wellness/counseling-services.html>

Name Pronunciation and Pronouns

NYU Stern students now have the ability to include their pronouns and name pronunciation in Albert. I encourage you to share your name pronunciation and pronouns this way. Please utilize this link for additional information: [Pronouns & Name Pronunciation](#)

Religious Observances and Other Absences

NYU’s [Calendar Policy on Religious Holidays](#) states that members of any religious group may, without penalty, absent themselves from classes when required in compliance with their religious obligations. You must notify me in advance of religious holidays or observances that might coincide with exams, assignments, or class times to schedule mutually acceptable alternatives. Students may also contact religiousaccommodations@nyu.edu for assistance.

NYU Stern is committed to ensuring an equitable educational experience for all students regardless of identity or circumstances and strives to recognize the obligations its students have outside of Stern. Please review all class dates at the start of the semester and review all course requirements to identify any foreseeable conflicts with exams, course assignments, projects, or other items required for participation and attendance. If you are aware of a potential conflict, please contact me as soon as possible to discuss any potential conflicts to determine whether/how they can be accommodated.

Inclusion Statement

This course strives to support and cultivate diversity of thought, perspectives, and experiences. The intent is to present materials and activities that will challenge your current perspectives with a goal of understanding how others might see situations differently. By participating in this course, it is the expectation that everyone commits to making this an inclusive learning environment for all.