

CS1720: Artificial Intelligence Platforms: Components, Consciousness, and Creativity

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TA: Kelly Wang (they/he)

1:35 - 3:15pm T/F

Forsyth 202

Course Description:

Covers the internal components of artificial intelligence platforms (large language models, or LLMs), the data and technological systems necessary to build and deploy them, and the real-world applications, effects, and lines of philosophical inquiry around these models. Key concepts on the technical side include computational knowledge representation, data and scale, computing infrastructure, opportunities and limitations posed by such models. Key threads of philosophical inquiry include theory of mind, language understanding, creativity, care and human relationships, knowledge and epistemic harm, distributive justice, and environmental responsibility. Students will learn the history of AI as situated in the history of computing and automatic translation technologies. Students will study the practical capabilities and limitations of these models, explore the various contexts in which they are currently deployed, and weigh the technological, societal, and environmental impacts of these technologies. To assess the impact of these models, students will learn and employ a number of ethical theories (including: care ethics, utilitarianism, autonomy-based theories, and virtue ethics). This course does not teach nor expect students to program.

Learning Outcomes:

By the end of this course, students will:

- have a technical understanding of how artificial intelligence platforms (specifically, those based on large language models) work and what their current limitations are.
- have a critical understanding of the role that data and scale play with these tools.
- be able to analyze the role of system-wide factors (the design of the internet, data centers) that affect the deployment and energy consumption of AI platforms.
- be able to deploy philosophical and conceptual tools to analyze and understand the social dimensions of AI platforms (including autonomy-based theories, care ethics, utilitarianism, virtue ethics)
- use philosophical and conceptual tools to develop, articulate, and defend one's own stance on social issues related to AI platforms.
- build skills in argument analysis and construction.

Classroom Expectations:

Students are expected to come to class ready to learn and participate –this course is heavily centered on small- and large-group work, discussion, and critically engaging with assigned readings. Much of the conceptual content will be taught in lecture.

AI Policy:

This is a course that specifically talks about large language models (LLMs, such as Claude and ChatGPT) and AI! It would be hypocritical for us to have a blanket "no AI" policy. There will be times we explicitly ask you to use LLMs for part of your work. In all other cases, the policy that we will write together in class applies.

We will write our policy together on the first day of class, and then it will be added here.

Collaboration policy:

All work that you submit should be your own. In the case of group work, it should be the work of you and the classmates you worked with. Feel free to discuss the topics we're addressing in class with your friends, but don't have them do your work for you. If you turn in work that is not your own, you will receive a 0 on the assignment in question.

Course Work:

The work that you do for this course will be composed of the following elements:

- 1) Readings – primarily completed **outside** of class. Readings associated with a particular day need to be completed **before** class begins. When readings are not completed, this will impact your participation grade.
- 2) Participation – your participation grade will be based on your level of engagement with the material in class. It is not simply an attendance grade. See below for our policy when you are sick.
- 3) Portfolios – primarily completed **in** class. You will add to your portfolio throughout the semester and will be turned in three times: September 30th, October 31st, and December 5th.
- 4) Final Projects – primarily completed **outside** of class.

Late Policy:

All work must be turned in on time unless you have requested an extension **ahead of time if at all possible**. To request an extension, email the course instructions with a brief explanation and the specific time you are requesting the extension until. Extensions are primarily granted based on **proactive communication**. If you turn in an item late and did not request an extension, you will receive a 10% penalty on the assignment in question.

Sick Policy:

If you are sick, do not come to class. You are always welcome to wear a mask in class regardless of your health status. If you think you may be getting sick but are well enough to attend class, we ask that you wear a mask, similarly if you are living with someone who is sick.

To make up work that you miss on the day that you are sick, email the course instructors as soon as you can to arrange make-up work. We do not require doctor's notes.

Schedule (Subject to change at instructors' discretion):

 [cs1720_calendar_fall2026_students](#)

Grading:

Students will be assessed on the following components:

Component	Percent	Notes
Portfolios	40%	
Participation	15%	- attend class - participate in group discussion - discuss portfolio content with groups during group work time - be actively engaged during class
Reading	5%	all reading should be completed thoughtfully before class; evaluated via reflection questions and in-class reading quizzes

Final Project	40%	
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Final grades will be based on the following scale. Decimals will be rounded to the nearest whole number.

Letter	Range (percent)
A	95 - 100
A-	90 - 94
B+	87 - 89
B	83 - 86
B-	80 - 82
C+	77 - 79
C	73 - 77
C-	70 - 72
D	60 - 69
F	< 60

Missing class:

Students are expected to attend class except in the case of emergency or illness. Graded work is completed during class every meeting. Missing a class for *any* reason will require:

- Completing all missed material individually, scheduling a meeting with the course TA, and bringing the completed work to that meeting to discuss. This must be completed within 1 week of the missed class except in cases of explicit instructor permission.

Accommodations:

It is our job to create a classroom environment that is most conducive to you learning well. If you have accommodations from the [Disability Resource Center](#), please provide your letter to us early in the semester so that we can arrange for these accommodations. If you wish to receive accommodations and do not have a letter, please visit the DRC at 20 Dodge Hall or call (617) 373-2675.

Student Names and Pronouns:

- If your name and pronouns are not in alignment with those listed on our class roster, please let us know either in person or via email so that we can ensure you are correctly addressed in this class.
 - If you wish to add, change, or update your pronouns in Canvas (for courses that do have Canvas websites), go to "Account" > "Profile" > "Edit Profile", then add, change, or update your pronouns and display name.
 - If you wish to change or update your name here at Northeastern as a whole, find [instructions with the registrar here](#).
- We recognize that your legal information doesn't always align with how you identify. Students may update their first and middle names as well as gender marker [with the registrar](#), even if they are not your legal names or gender marker. Those names and gender marker are what would appear publicly

in most university systems. In the absence of such updates, what we see on most university systems by default are your legal name and gender marker.

Classroom Environment:

To create and preserve a classroom atmosphere that optimizes teaching and learning, all participants share a responsibility in creating a civil and non-disruptive forum for the discussion of ideas. Students are expected to conduct themselves at all times in a manner that does not disrupt teaching or learning. Your comments to others should be constructive and free from harassing statements. You are encouraged to disagree with other students and the instructor, but such disagreements need to be respectful and be based upon facts and documentation (rather than prejudices and personalities). The instructor reserves the right to interrupt conversations that deviate from these expectations. Repeated unprofessional or disrespectful conduct may result in a lower grade or more severe consequences.

Part of the learning process in this course is respectful engagement of ideas with others.

The [Code of Student Conduct can be found on the OSCCR website](#).

Title IX:

Title IX of the Education Amendments of 1972 protects individuals from sex or gender-based discrimination, including discrimination based on gender-identity, in educational programs and activities that receive federal financial assistance.

Northeastern's Title IX Policy prohibits Prohibited Offenses, which are defined as sexual harassment, sexual assault, relationship or domestic violence, and stalking.

The Title IX Policy applies to the entire community, including male, female, non-binary, and transgender students, faculty and staff.

If you or someone you know has been a survivor of a Prohibited Offense, confidential support and guidance can be found through [University Health and Counseling Services](#) staff and the [Center for Spiritual Dialogue and Service](#) clergy members.

By law, those employees are not required to report allegations of sex or gender-based discrimination to the University.

Reports can be made non-confidentially to the Title IX Coordinator within the Office for Gender Equity and Compliance at: titleix@northeastern.edu and/or through NUPD (Emergency 617.373.3333; Non-Emergency 617.373.2121).

Reporting Prohibited Offenses to NUPD does NOT commit the victim/affected party to future legal action.

Faculty members are considered "responsible employees" at Northeastern University, meaning they are required to report all allegations of sex or gender-based discrimination to the Title IX Coordinator.

In case of an emergency, please call 911.

Please visit <http://www.northeastern.edu/titleix> for a complete list of reporting options and resources both on- and off-campus.

Religious Holidays:

The course staff will make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, contact the course staff at least 7 days in advance of the conflicting date to reschedule a homework or quiz due date.