

CS 450: AI and the World

Fall 2026 · 2026-08-31 to 2026-12-14 · 4 credits

Course Catalog

This course is a nontechnical introduction to Artificial Intelligence (AI) as it exists in the modern world, focusing on machine learning, neural networks, and generative AI models such as ChatGPT and its contemporaries. The course covers the foundations of how these models work, applications and practical use of generative AI models, and the current limitations and future of AI. Students will emerge from the course better prepared to thrive in an increasingly AI-affected world, as well as to further their AI skills if they so choose. This is a discovery course in the Environment, Technology and Society (ETS) category, and is meant for everyone, requiring no technical background or other prerequisites. The coursework chiefly consists of classroom activities, readings, and written responses. Many course assignments will ask students to envision the application of varying aspects of AI to their own major or field of interest, and the implications and ethical considerations thereof.

Credits: 4

Prerequisites

None

Course Designation

undergraduate

University Requirements

Discovery Program, Environment, Technology, and Society (ETS). Not writing intensive.

Student Outcomes

By the end of this course, students should be able to:

- Explain and critique products of the current AI landscape with respect to capabilities and limitations.
- Engage with AI tools productively.
- Analyze domain-specific use cases of AI with awareness of limitations, risks, and ethical issues.

Letter-grade Scale

UNH Letter Grade By Percentage

Grade	Range	Grade	Range
A	100% to 94%	A-	< 94% to 90%
B+	< 90% to 87%	B	< 87% to 84%
B-	< 84% to 80%	C+	< 80% to 77%
C	< 77% to 74%	C-	< 74% to 70%
D+	< 70% to 67%	D	< 67% to 64%
D-	< 64% to 60%	F	< 60% to 0%

Credit Hour Workload Estimate

This is a 4-credit, 15-week course. Per UNH policy, students should expect approximately 180 hours of academic work across the term (45 hours per credit), or about 12 hours per week. Weekly work includes Monday class meetings, Wednesday guided practice, Friday activities (normally virtual), readings, class participation, case studies, and progress on the final project. This is a 4-credit course; the 180-hour total includes approximately 37 contact hours and the remaining structured outside work.

Topics

How AI systems learn

- How AI learns patterns from examples
- What accuracy numbers do and do not tell us

How generative AI produces responses

- How text is broken into tokens and generated one piece at a time
- Why confident-sounding answers can still be wrong

Models, products, context, and continuity

- The difference between an AI model and the app around it
- What an AI system remembers and forgets

Prompting, context, and reliable information

- Writing useful instructions for AI
- Giving AI trusted source material

AI agents, tools, and uses in your field

- How AI agents use tools to complete tasks
- Choosing AI uses that fit your field and keeping people in control

Testing AI systems and finding their limits

- Comparing results across repeated tests
- Finding where an AI system stops working well

Bias, fairness, and understanding AI decisions

- Checking whether an AI system treats groups differently
- Ways to understand and reduce harmful results

AI impacts, governance, and responsibility

- Who is responsible when AI systems cause harm
- Environmental costs of building and using AI

Applying AI in your field and planning next steps

- Building a responsible AI use for your field

Sections

Modality: Hybrid

Section 01, CRN 15840. MWF 1:10–2:00 p.m., Kingsbury N113.

Course Format

Monday and Wednesday meetings are typically in person. Friday is normally a virtual learning activity. The specific Friday activity can vary by week.

Faculty

Matt Magnusson, Senior Lecturer, Computer Science

Preferred contact: email. Email: mfm2@unh.edu. Response time: within 24 hours on weekdays.

Office: Kingsbury W243. Phone: 603-862-3794.

Office hours: Monday and Wednesday 9:00–11:00 a.m., or by appointment (Kingsbury W243 or Teams).

Evaluation

Component	Percentage
Class participation (readings/discussion boards, classroom activities)	20%
In-class assessments	20%
Case studies and presentation	40%
Final project	20%

How You Will Be Assessed

Class participation (readings/discussion boards, classroom activities)

Types: Assigned readings, discussion boards, classroom activities, polls, and brief reflections.

Delivery: In class or through MyCourses, as assigned.

Class participation includes assigned readings, discussion boards, classroom activities, polls, and brief reflections. Credit is based on completing a genuine attempt; simply attending is not enough.

In-class assessments

Types: Short individual assessments, including multiple choice, short answer, and interpretation of examples.

Delivery: In person during scheduled class meetings, or MyCourses if specified.

Short individual assessments throughout the term check your understanding of course ideas. They may include multiple choice, short answer, or interpretation of examples shown in class.

Case studies and presentation

Types: Case studies, written work, and a presentation.

Delivery: MyCourses; presentation in class when specified.

Case studies ask you to apply course ideas to real examples of AI. This category includes written work and a presentation. Instructions and grading criteria will be posted in MyCourses.

Final project

Types: Final project.

Delivery: MyCourses.

The final project applies course ideas to a use of AI in a field that matters to you. You will build it in stages and explain what you tested, what you learned, and where human judgment still matters.

Reflection / Verification Notes

Because AI tools are allowed and because the course assesses judgment, students regularly submit short verification or reflection notes. These notes should answer: What did I check? What could still be wrong? Why do I trust this result enough to submit it? Where did AI help, if it did? Verification is part of the course outcome, not optional decoration.

Late Policy for Assignments

Assignments must be completed by the posted due date unless otherwise specified. Late work without an arranged extension is not accepted. Participation activities cannot be made up for credit.

Temporary academic supports

If you are dealing with an unexpected, extenuating circumstance that will keep you out of class or affect your performance for more than a day or two, you may reach out to the Dean of Students (dean.students@unh.edu) to request a letter be sent to all your faculty.

If you are required to miss significant class time, you will be provided temporary academic supports so that you can continue to make satisfactory progress in this course. Please contact your course instructor to discuss the specific types of supports that will be implemented during your absence. Possible options you may be provided in this class include:

- Class notes from a peer
- One-on-one meetings with instructor or TA to catch-up on missed content
- Virtual office hours
- Access to recorded lectures (asynchronous)
- Remote access for class (synchronous)

- Lecture slides
- Handouts or other materials that are distributed

Please recognize that not all students will be well enough to attend classes remotely.

Grade Disputes

If you believe a grade on an assignment, quiz, or exam is incorrect, submit a written regrade request within one week of the grade being posted to MyCourses. Coursework submitted for reconsideration may be regraded in its entirety.

Learning Resources

Textbook

No required textbook. Readings required for the course will be provided through MyCourses.

Other materials

None

Technical requirements

A laptop is required for in-class and Friday activities. Using a smartphone for these activities is not encouraged. If you do not have a laptop, contact the instructor so arrangements can be made.

Required Software

Required Software: iClicker Cloud

This course uses iClicker Cloud for in-class polling and participation. iClicker is the USNH-supported classroom response system. You need an iClicker Pro subscription (not Pulse, which is attendance-only). Sign in with UNH single sign-on. Use the iClicker student mobile app or the student web app on a laptop. A physical iClicker remote is allowed instead of the app. How to purchase: (1) App or web: download the iClicker student app from an app store, or open <https://www.iclicker.com/students/apps-and-remotes/web>, sign in with UNH SSO, and buy iClicker Pro when prompted (vendor list price as of 2026-08-17: \$15.99 for 6 months or \$24.99 for 12 months; one subscription covers all iClicker courses during that period). (2) Remote: buy a new iClicker2 remote at the UNH bookstore; a new remote includes a free 5-year app subscription (used remotes do not). UNH student help: <https://td.usnh.edu/TDClient/60/Portal/KB/ArticleDet?ID=666>. Technology Help Desk, Dimond Library, if you cannot sign in or purchase.

Required Software: Google Colab

This course uses Google Colab for some activities and assignments. Colab is required but free: you need a Google account to access it. You do not need a paid Colab Pro or Pro+ subscription for this course.

Attendance

In-class participation activities cannot be made up for credit if missed. Prepared contribution is required; presence alone is insufficient.

Student AI Policy

AI tools are allowed in this course and will be part of how we learn. Students may use AI tools to help explain concepts, draft text, try prompts, debug errors, interpret documentation, brainstorm approaches, and improve written explanations. However, students are responsible for everything they submit. Allowed use includes asking AI to explain an error or concept; asking AI to draft text or prompts that you then test and revise; asking AI to help summarize documentation; asking AI to suggest checks, tests, or edge cases; and asking AI to improve clarity of writing. Not allowed: submitting AI-generated work you cannot explain; submitting unchecked AI output as fact; fabricating data, citations, sources, or results; using AI to bypass required individual work on closed assessments; hiding meaningful AI assistance when disclosure is requested. The working standard is: AI may help you produce the work, but you must verify it, understand it, and take responsibility for it.

Instructor AI Policy

I use AI tools to help develop this course, including lectures, assignments, exercises, examples, and supporting materials. AI helps me iterate on explanations, generate examples, test assignment ideas, and improve the clarity of course materials. I grade student assignments personally. I may use AI as a tool to help improve the quality and consistency of feedback, such as identifying patterns, suggesting clearer explanations, or helping ensure feedback is thorough. Final evaluation and grades are my responsibility and my judgment. This is the same standard expected of students: AI can assist the work, but the person using it remains responsible for the result.

Academic Honesty

The University Academic Integrity Policy applies in this course. Students are expected to complete independent, original work unless the instructor specifies otherwise. The policy, including the steps faculty must take when issuing a formal penalty (reduced or failing grade on an academic assessment or examination, or reduced or failing grade in the course), is published in the Student Rights, Rules, and Responsibilities. Those steps include providing students with notice of the allegations, giving them the opportunity to respond, and reporting the violation to the Office of Community Standards if a formal grade penalty is being issued.

See the [Academic Integrity Policy](#) and [Academic Integrity in the Student Rights, Rules, and Responsibilities](#).

Plagiarism: Use or submission of intellectual property, ideas, evidence produced by another person, including computer generated text or work outsourced to third parties, in whole or in part as one's own in any academic assessment without providing proper citation or attribution. In some cases, reusing one's own previous work without acknowledging or citing the original work can constitute self-plagiarism.

Cheating: Use or attempted use of any academic exercise materials, information, study aids, electronic data, AI tools, assignment/exam surrogate, or other forms of assistance without authorization.

Class Recording

Class lectures and activities may be recorded to make this course more accessible, and recordings may be made available to students presently enrolled in the class to assist in reviewing material and preparing for assessments. Recordings are to be used for educational purposes only. You may not record class activities (including audio/photographs/screenshots of instructors and students) without express permission from me and other students whose image is captured (See NH RSA-570A). If permission is granted, student-initiated

recordings may only be used for educational purposes in this class and only during the period in which you are enrolled in the class; authorized student-initiated recordings may not be posted or shared in any fashion outside of the class.

University Policies

UNH provides a variety of resources to support students' academic success, health and well-being, and engagement with the campus community.

A list of student resources can be found on the [Syllabus Supplemental Resources](#) page. These resources are not required for this course but may be helpful to you during the semester.

Students with Disabilities

According to the Americans with Disabilities Act (as amended, 2008), each student with a disability has the right to request services from UNH to accommodate their disability. If you are a student with a documented disability or believe you may have a disability that requires accommodations, please contact Student Accessibility Services (SAS) at sas.office@unh.edu.

Accommodation letters are created by SAS with the student. Please follow-up with your instructor as soon as possible to ensure timely implementation of the identified accommodations in the letter. Faculty have an obligation to respond once they receive official notice of accommodations from SAS, but are under no obligation to provide retroactive accommodations.

For more information, contact SAS: www.unh.edu/sas, (603) 862-9355, 711 (Relay NH) or sas.office@unh.edu.

Students Experiencing Emotional or Mental Health Distress

Your academic success and overall mental health are very important. If, during the semester, you find you are experiencing emotional or mental health issues, please contact [Psychological and Counseling Services \(PACS\)](#), which provides counseling appointments and other mental health services.

Location: The Wellness Center, 4 Pettee Brook Lane. Phone (24/7): 603.862.2090 / TTY: 7-1-1.

If urgent, students may call PACS Monday–Friday, 8 a.m.–5 p.m. and schedule an urgent same-day appointment.

Students Experiencing Housing or Food Insecurity

Food, housing, and financial supports are available on the Durham campus. See [Housing, Food and Financial \(Basic Needs\) Support](#). If you have questions or need to speak with someone, contact basic.needs@unh.edu or visit the Memorial Union Building.

Classroom Behavior Expectations

Understanding your rights and responsibilities is essential to fostering a respectful and inclusive campus climate, including in the classroom. The Student Rights, Rules, and Responsibilities Handbook (“S.R.R.R.”) is the University’s official compendium for the Student Code of Conduct, cornerstone student policies and expected standards of behavior. See [Academic Integrity](#) in the S.R.R.R. and the [Syllabus Supplemental Resources](#) institutional-policies list.

Confidentiality and Mandatory Reporting

The University of New Hampshire and its faculty are committed to assuring a safe and productive educational environment for all students and for the university as a whole. To this end, the university requires faculty members to report to the university's Title IX Coordinator (Bo Zarycky, Bo.Zarycky@unh.edu, 603-862-2930/1527 TTY) any incidents of sexual violence and harassment shared by students. If you wish to speak to a confidential support service provider who does not have this reporting responsibility because their discussions with clients are subject to legal privilege, you can contact the SHARPP Center for Interpersonal Violence Awareness, Prevention, and Advocacy at (603) 862-7233 / TTY (800) 735-2964.

For more information about what happens when you report, how the university treats your information once a report is made to the Title IX Coordinator, and your rights and reporting options at UNH (including anonymous reporting options), see the Civil Rights & Equity Office. The uSafeUS® app is your college's free, anonymous tool that helps you and your friends navigate uncomfortable situations and access support.

Help us improve our campus and community climate. If you have observed or experienced an incident of bias, discrimination or harassment, please report the incident by contacting the Civil Rights & Equity Office at UNH.civilrights@unh.edu or (603) 862-2930 voice / (603) 862-1527 TTY / 7-1-1 Relay NH. Anonymous reports may be submitted.