Standards and Recommendations for the Use of Generative AI in Teaching and Learning at Northeastern

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Background

Al systems—referring primarily, though not exclusively, to generative Al tools in this document—can be of great value in creating new opportunities for learning and building Al skills that students will need in the workplace. However, the use of AI in teaching and learning contexts presents challenges, including overreliance that interferes with building foundational knowledge, use without appropriate oversight or attribution, as well as policy and legal compliance issues. Crucially, the responsible use of AI should always account for ethical considerations including transparency, privacy, human oversight and accountability, fairness, and beneficence.

While AI systems are evolving rapidly, the quality of what they produce can vary greatly depending on user prompts and inputs. Because these systems are becoming increasingly ubiquitous, building AI literacy—a working knowledge of the capabilities and limitations of AI as well as how to use it effectively and responsibly—is critical for faculty and students.

This document is designed to support faculty decision-making about the use of artificial intelligence in teaching and learning in ways that respect instructor autonomy while operating within the context of university policies. Any use of AI should be made in alignment with Northeastern's Policy on the Use of AI Systems (AI Policy).

These Standards and Recommendations were developed through the combined efforts of the Responsible AI Faculty Working Group, the <u>AI Faculty Fellows</u>, and the Center for Advancing Teaching and Learning through Research (CATLR), with input from the Office of General Counsel (OGC) and members of the Chancellor's and Provost's Offices. A draft version was shared with all faculty members, and feedback was incorporated to address questions and suggested improvements.

Note: These Standards address AI use in teaching and learning contexts. For use in research activities, see <u>Standards for the Use of Artificial Intelligence in Research</u>. For administrative activities, see <u>Standards for the Administrative Use of Artificial Intelligence</u>.

Standards for Responsible Use

1. The university supports faculty autonomy in determining appropriate AI use in their courses. Instructors may use AI tools to help design academic materials. However, instructors are responsible for the quality and accuracy of the materials, including checking outputs for accuracy and making necessary revisions prior to sharing work with students.

- 2. Instructors should clearly communicate to students the permitted uses of generative AI in coursework. This communication should be written in the syllabus, assignment guidelines, and conveyed verbally in class (see suggested strategies below).
- 3. Instructors should be familiar with how the Northeastern's <u>AI Policy</u> may impact the use of AI. The AI Policy includes requirements related to attribution, ensuring accuracy, preventing illegal bias and discrimination, and completing the <u>AI Review Committee</u> <u>Review Process</u> if applicable (see the <u>AI Review Committee FAQ</u> for further details).
- 4. Instructors should follow guidelines set by textbook and journal publishers for the allowable and prohibited uses of AI with copyright materials, such as uploading textbook materials into an AI system.
- 5. Instructors should understand the limitations of AI and the risks of relying on it as a sole source of information in any teaching-related practice.

Recommendations for Responsibly Incorporating AI in Teaching

As with many emerging technologies, there is considerable uncertainty and debate when it comes to the appropriate use of AI for teaching and learning. The relevance and optimal use of AI varies widely across courses and disciplinary contexts. The recommendations below are designed to help instructors make decisions about whether and how to incorporate AI into courses, while recognizing that there is room for reasonable disagreement about what is appropriate.

CATLR has developed an <u>AI in Teaching and Learning site</u> with AI literacy strategies, examples, and prompting guides, as well as a self-paced course, that cover a variety of use cases. Instructors who would like support for integrating AI into their teaching can request a consultation with <u>CATLR</u> or <u>Academic Technologies</u>.

1. Align AI Use with Course Learning Goals

Al can help students achieve some learning goals while hindering others. As the use of Al becomes more common within a discipline or professional field, students may need to practice using Al tools to complete work related to some learning goals, whereas they may need to avoid its use to acquire foundational knowledge and skills.

2. Build Critical AI Literacies

Cultivating one's own AI literacy will help instructors explain the rationale for why AI might help or hinder learning in specific scenarios. Given AI practices within a specific field, instructors should consider, when appropriate, infusing real or realistic AI use cases that will help students cultivate their AI literacy. It is also useful to provide learning resources designed to help students develop their AI skills. Verification and critical analysis should be part of any AI-integrated task. If using AI is part of assigned work, instructors can consider having students critique, compare, or test AI outputs to develop their understanding of its capabilities and limitations.

3. Design Assignments with AI in Mind

Instructors can enhance learning and decrease inappropriate use of AI by designing assessments with a focus on process over product and emphasizing why learning specific material and skills is important. Other AI-resilient teaching strategies include:

- Multi-stage projects with cycles of drafts, peer/instructor feedback, and students documenting how they used the feedback they received
- Assessments that include working individually and then in teams
- Recorded video or audio explanations accompanying assignment submissions
- Assignments in which students reference specific course discussions
- Multimodal products (e.g., posters, podcasts) accompanied by live presentations
- Requiring documentation of how AI was used in the completion of assignment, such as prompts, iterative work on outputs, or chatbot conversation transcripts

CALTR provides <u>resources</u> and <u>workshops</u> specifically addressing AI and assignments.

4. Require Attribution and Transparency in Student AI Use

If AI use is allowed on assignments, instructors should consider requiring students to disclose how they use it. A simple statement may often suffice (e.g., "I used AI to summarize my notes"), while in other contexts providing citations or evidence of use such as complete chat logs may be more appropriate. This prompts explicit reflection by students on whether they have used AI appropriately and followed relevant university guidelines.

At present, AI detection tools are unreliable and generate false positives; as such, these tools are not recommended to check for student AI use. Any use of an AI detection tool requires prior approval of the tool by the <u>AI Review Committee</u>, given the issues with accuracy and because it may involve sensitive personal information or impact the legal rights of students. If AI misuse is suspected, instructors can ask students to explain their process or how they arrived at a given answer to demonstrate their knowledge. If an instructor is concerned that a student has violated academic integrity, they may follow standard procedures with the <u>Office of Student Conduct and Conflict Resolution</u> (OSCCR).

Given the ubiquitous availability of AI tools, instructors are encouraged to develop assessments where students are incentivized to rely on their own knowledge and capabilities rather than offload the production of work products to an AI system. In some cases, it may be beneficial to reconceive traditional take-home or online assignments (see suggestions and resources above) rather than trying to police the use of AI.

5. Model Attribution and Transparency in the Use of AI

The roles and responsibilities of instructors are different from those of students, and it is not always necessary for instructors to follow the same practices as students. However, one way to encourage students to be transparent about their use of AI is for instructors to communicate the ways they use AI in their teaching practices.

Content Creation Attribution: Instructors should consider including a statement in their syllabus describing ways that they do and don't use AI within the course. For example,

Some course materials have been developed with the assistance of AI tools. All such content has been reviewed and edited by the instructor for accuracy.

Assessment and Grading: Students need to have confidence that instructors are not outsourcing core aspects of engagement and feedback to AI. Instructors should consider disclosing when and how they use AI in support of assessment processes. See the links above for consultations and workshops on the use of AI in assignments and assessments.

Important: Because it could impact the legal rights of students and may involve sensitive personal information and risk of illegal bias and discrimination, any use of generative AI to grade open-ended student responses, including written or multimodal work products (not closed form responses such as multiple-choice) requires review by the <u>AI Review</u> <u>Committee</u>, as specified by the university's <u>AI Policy</u>.

6. Clarify Expectations Around AI Use

In Class: Instructors should begin their course with a verbal explanation of their expectations, including when and how AI use will be appropriate. They should encourage students to share their perspectives and ask questions and revisit AI usage expectations at the start of new assignments throughout the semester.

Expectations In the Course Syllabus: Instructors should specify expectations in their syllabus, helping students make a connection between their AI policies and course learning outcomes. The examples below can be used to create course policy statements on AI use.

Sample Syllabus Statements

AI Use Encouraged: Generative AI is reshaping our field. This course is a great place to experiment with it. For this reason, I encourage the use of AI, and I also require that you document and reflect on your use to have a record of experience and insights. You will do this in an AI journal, updated weekly.

AI Use Sometimes Allowed: AI tools are permitted for specific assignments as indicated in the syllabus. Each assignment will clearly state whether AI use is allowed and to what extent.

Al Use Not Permitted: Generative AI is a valuable tool for many purposes, but in this course, we will be learning skills that you will need to be able to apply on your own before you can succeed with more advanced work in your career and future courses. You will also need these skills to spot and correct errors in the output of AI. Therefore, AI is not permitted in this course except when explicitly stated.

Expectations In Assignments: Instructors should always make it clear how the use of AI is to be cited. Consider using an easy to spot labeling system across all assignments. The labels below can be used or adapted for assignment instructions (other variations of this approach can be found online).

ProhibitedUse of AI is prohibited on this assignment.Image: PermittedUse of AI is allowed on this assignment; specific tools and uses must be cited (Example: "AI was used for feedback on first draft.").Image: PermittedUse of AI is encouraged on this assignment; follow the assignment instructions for guidance and citation requirements.Image: PermittedUse of AI is required on this assignment; follow the assignment instructions for guidance and citation requirements.

Sample Assignment Labeling

It's possible that different kinds of AI use might be permissible or even recommended for certain assignments and not others. If so, instructors should clarify what uses of AI are considered appropriate and be transparent about those expectations.

Frequently Asked Questions on the Use of AI in Teaching and Learning

1. Am I allowed to prohibit the use of AI in my courses?

Yes. There are many learning scenarios in which using AI is not advisable, such as where students need to master foundational proficiencies or are being asked to produce their own creative output, even though AI can perform the same tasks. In such situations, it may be appropriate to prohibit the use of AI.

2. I want to encourage students to use AI. Which tools are they allowed to use?

Wherever possible, instructors should encourage students to use Northeastern-supported tools that have been vetted by Information Technology to confirm they meet standards for security and privacy. Instructors can contact <u>Academic Technologies</u> to inquire about approved systems.

3. If I want to use an AI system in my course, what do I need to consider?

The most important thing to consider is to align AI use with the course's learning goals. Once an instructor makes that determination, the university's <u>AI Policy</u> should govern the use of AI Systems for teaching purposes. Instructors should familiarize themselves with the policy requirements, including the obligation to confirm the quality and accuracy of system outputs and ensure non-discrimination. Guidance on how to do this is provided in the <u>AI</u> <u>Review Committee FAQ</u>.

If the use of an AI system involves inputting any confidential information, personal information, or restricted research data (see the <u>AI Policy</u> for definitions), or could impact the legal rights or safety of any individual, instructors must submit the use of the AI tool for review by the <u>AI Review Committee</u>.

4. Is there any context in which I'm required to integrate the use of AI within my course?

No. It is up to each faculty member to determine the appropriate use of AI in their course. For faculty who teach from a common syllabus that includes the use of AI, faculty are expected to follow the agreed upon syllabus learning outcomes.

Relevant Resources for Generative AI in Teaching and Learning

Northeastern Policies to Inform Decisions About AI in Teaching and Learning Contexts

- Policy on the Use of AI Systems
- Policy on Student Rights Under the Family Educational Rights and Privacy Act (FERPA)
- Code of Student Conduct

Resources and Support for AI-Responsive Teaching

- <u>Academic Technologies</u>
- <u>AI in Teaching and Learning Across the Network</u>
- University-supported Teaching & Learning Tools that Include AI Features
- NU Claude Portal