AN NDSU INSTRUCTOR GUIDE TO

AI in the Classroom

GUIDEBOOK

NDSU | NORTH DAKOTA STATE UNIVERSITY

Introduction

As artificial intelligence (AI) becomes more integrated into education and the workplace, instructors at North Dakota State University (NDSU) have a responsibility for their own use of AI and play a crucial role in shaping students' responsible use of these tools. Through Large Language Models like ChatGPT and Co-Pilot, AI has the potential to enhance learning, develop critical thinking skills, and prepare students for a workforce increasingly reliant on digital tools. However, its use also raises important questions about academic integrity, transparency, and skill development.

This guide provides faculty with key considerations for AI in the classroom, including how to establish clear expectations, encourage responsible AI use, and help students build the digital literacy they will need for both academic and professional success. Instructors have the opportunity to model effective and ethical AI use that augments human capabilities. By taking a strategic approach, instructors can ensure that AI serves as a meaningful collaborator rather than a substitute for essential skills.

Note: This document was produced by iterative prompting, selecting, and adapting of outputs from Chat-GPT.

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Position AI As A Learning Tool, Not A Replacement

AI should support learning and progress towards learning outcomes, creativity, and supporting personal expertise. Over-reliance on AI can weaken students' problem-solving and communication skills, making them less prepared for careers where employers value agency and adaptability. Encouraging students to use AI as a tool for collaboration and inquiry helps ensure that they remain relevant to employers and won't simply be replaced by AI in the workplace.

Instructor Tip: Assign tasks that require students to engage with AI critically—such as comparing AI-generated responses to human writing, evaluating AI's limitations within a discipline, or revising AI outputs to better match a specific audience, purpose, and situation.

Sample Assignment

Here is an example of an assignment that can be used to teach how AI can be used.

Learning Objectives:

By the end of this assignment, students will:

- Understand ethical considerations in AI use (e.g., bias, plagiarism, transparency).
- Evaluate the effectiveness and limitations of AI tools in their field.
- Demonstrate responsible use of AI in completing academic tasks.

Assignment Overview:

Students will complete a multi-part project that explores how AI can be used in their discipline. They'll analyze its benefits and risks, experiment with a tool (e.g., ChatGPT, WolframAlpha, GitHub Copilot), and reflect on their experience.

Assignment Components:

1. Research Brief (Individual)

   Investigate how AI is currently used in your field (e.g., engineering design, math tutoring, science simulations, lesson planning).

   Identify at least two ethical concerns (e.g., data privacy, algorithmic bias, misuse).

   Submit a 1–2 page summary with citations.

2. AI Tool Exploration (Individual or Group)

   Choose an AI tool relevant to your discipline. Use it to complete a small task (e.g., generate code, solve a math problem, draft a lesson plan).

   Document:

   » What you asked the AI
   » What it produced
   » How you evaluated its accuracy
   » Any limitations or errors

3. Reflection Essay (Individual)

   Discuss how the AI helped or hindered your work. Reflect on:

   » What ethical principles guided your use
   » How you ensured responsible use (e.g., citation, verification)
   » Whether you would use it again and under what conditions

4. Class Discussion or Panel

   Debate:

   "Should AI be allowed in academic work in our field?"

   Encourage students to propose guidelines for ethical AI use.

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Align AI Class Use With University Policies And Academic Integrity

NDSU has policies that address responsible AI use, particularly concerning academic integrity and ethical scholarship. Instructors should familiarize themselves with these policies and consider how AI fits within their discipline, course objectives, and assessment strategies. Students may misuse AI by submitting AI-generated work as their own or failing to critically engage with AI-generated content. Clearly defining what constitutes acceptable AI use in coursework helps maintain academic integrity while guiding students in ethical AI practices they can carry into their careers. A good classroom policy provides guardrails without inhibiting creativity. Instructors can use a syllabus statement, like the one on the next page, along with examples to provide finer distinctions about the ways students can and can not use AI.

Instructor Tip: Include a statement in your syllabus about AI use, specifying whether, when, and how students may use AI tools in assignments.

Syllabus Statement

Here is a sample syllabus statement that you can borrow or adapt for your own syllabus.

Academic Integrity Policy
All writing submitted for any course must be produced by the student. When appropriate, ideas, phrases, and words from other sources can be integrated into student work with attribution. In all writing, ideas and words taken from any source should be attributed to the original source.

Part of our course will focus on helping understand how and when to give credit to other sources or authors, and why it is a standard academic convention to do so. We will also discuss the role of AI in writing processes. Please pay special attention to the quotes, paraphrases, and documentation practices you use in your papers (**Note:** if you are referring to work previously submitted for this course, then you should cite yourself).

Any writing that is not produced by a student in this course without attribution, whether it was written by a human or AI, is a violation of the university's academic regulations and will be subject to disciplinary action. AI-generated composition (ChatGPT or other open-source composition software) that is used to produce any form of composition and is then submitted as the student's own writing without acknowledging the role that AI played in its production violates the writing program's academic integrity policy.

Work submitted in all courses must adhere to the Code of Academic Responsibility and Conduct as cited in the Handbook

of Student Policies: "The academic community is operated on the basis of honesty, integrity, and fair play." NDSU Policy 335: Code of Academic Responsibility and Conduct applies to cases in which cheating, plagiarism, or other academic misconduct have occurred in an instructional context. Students found guilty of academic misconduct are subject to penalties, up to and possibly including suspension and/or expulsion. Student academic misconduct records are maintained by the Office of Registration and Records. Informational resources about academic honesty for students and instructional staff members can be found here and here.

Here are two examples of program policy:

1. Students are allowed to use advanced automated tools (artificial intelligence or machine learning tools such as ChatGPT or Dall-E 2) on assignments in this course if that use is properly documented and credited. For example, text generated using ChatGPT-3 should include a citation such as: "Chat-GPT-3. (YYYY, Month DD of query). "Text of your query." Generated using OpenAI. https://chat.openai.com/" Material generated using other tools should follow a similar citation convention. (from Duke University)
2. Instructors in the writing program try to distinguish between inadvertent and deliberate plagiarism, as well as whether and how AI has been used in the writing process. For cases of plagiarism: Initial instances of inadvertent plagiarism will be pointed out and revision will be required to receive a passing grade. Deliberate plagiarism may result in zero for the assignment, possibly an F for the course. For cases in which AI has been used to generate text for an assignment in which AI was not included as part of the assignment: Initial instances will be discussed in a meeting with the instructor, and revision will be required to receive a passing grade. Repeated instances may result in zero for the assignment, possibly an F for the course. (from NDSU Center for Writers)

Suspected Plagiarism Process

If you have a high level of confidence that a student has plagiarized and/or used AI technology to write one or more of their assignments (including low-stakes assignments such as journal or discussion board posts) – here is a process you can follow:

As instructors, we can measure our evaluation of a student's work against all the other work that a student has submitted throughout the semester, both formal and informal. We can also look for evidence of engaging in the writing process – i.e. engaging in revision and reflecting on revision choices. We can also consider the student's level of engagement in the class. All of this can inform how we read work that a student has submitted, which we suspect of plagiarism and/or AI-generated writing.

For cases of plagiarism:
Oftentimes Googling a specific phrase or sentence within double quotation marks calls up the source from which it was taken. You can also integrate TurnItIn within Blackboard, but this software can be problematic because it collects student writing and uses it to identify other cases of plagiarism. Also, plagiarism identified by TurnItIn is presented with little context and is also reduced to a percent.

For suspected use of AI:
Sometimes, plugging an assignment prompt into ChatGPT can result in text that is quite close to what a student submitted (i.e. similar phrasing, order of ideas, transition words…). Note that asking ChatGPT if a text was written by it does not produce accurate/reliable results. Also, FERPA guidelines prohibit us from inputting student writing into an AI tool without a student's permission.

1. Remember our shared goal as

instructors is to teach students how to work with sources ethically and effectively, and how to develop their own writing skills. Often, students do not plagiarize or use AI technology because they are "bad people" - rather, they choose these options in times of stress, when they feel overwhelmed, or when they do not understand an assignment. Keep this at the forefront of your mind as you proceed!

2. Reach out to the student via email and request a meeting (in person or via Zoom) to discuss the assignment.
3. Meet with the student and have a conversation about:
   - » Their process of writing, revision, etc.
   - » Goals of the course and the assignment.
   - » Ask about their processes/ approaches to completing the assignment.
   - » Ask to talk about any tools/ resources/friends/family they used to help them write the assignment.
   - » Ask them to talk about the purpose of the assignment and ask them to summarize what they wrote.
4. If you feel during the conversation that the student cannot account for their own work you can tell them about how and why you think they plagiarized and/or that AI helped them write it.
5. If they dispute this, ask them to provide you with evidence of their process. (i.e. multiple drafts, brainstorming, etc.)
6. If it's a first-time problem, provide the student with an opportunity to rewrite/revise the assignment.
7. Report it as a case of academic misconduct (this provides students the opportunity to appeal). Give them the program director's name and email if they would like to talk with someone else about your decision.

Establish Clear Expectations In Your Course

Students will encounter varying AI policies across their classes and future professions. Some instructors may encourage AI for brainstorming and revision, while others may prohibit its use altogether. Providing explicit guidance in syllabi and assignment instructions helps students navigate these differences and develop adaptability—an essential skill in workplaces where AI policies and practices vary.

Instructor Tip: Discuss AI policies early in the semester, include an "AI use" section on all assignment instructions, and provide examples of acceptable and unacceptable use in your course.

Sample Use Statement

Here is an example of a statement regarding acceptable and unacceptable uses of AI.

Special Note On Inappropriate and Appropriate Use of AI Text Generators:

None of your literature review may be written by AI text generators (Chat-GPT, Copilot, Gemini) and used as if it were your own work. AI is not consistently reliable or effective at literature reviews because it can "hallucinate" sources and often contains inaccuracies (not to mention problems with generic style choices and mechanical 5-paragraph essay organizational structures). Suspected AI plagiarism will necessitate a meeting with me and a conversation about your writing process. We will discuss evidence of AI generated text, why it doesn't meet the aims of the assignment or principles of academic honesty, and you will be asked to re-write the paper to receive a grade. Only an acceptably re-written paper will receive a grade.

Generative AI may be used productively as a thinking partner to brainstorm topics and narrow the scope of your research question. It may also be used as a supplement to peer review if you give it your draft and prompt: "do not re-write it for me - just offer suggestions for how to improve [insert specific assignment criteria]." If generative AI is used as a tool in your writing and research process, you must include transparent evidence and explanation for how it was used in your final "author's note."

Encourage Transparency In AI Use

If AI can help students meet your course learning objectives, instructors should guide students toward responsible, transparent use. If students use AI for research, writing, or idea generation, they should clearly communicate how they used it—whether through citations, reflective statements, or assignment-specific disclosure requirements. This mirrors real-world expectations, as many industries require professionals to document AI-assisted work for accountability, quality control, and ethical compliance.

Instructor Tip: Require students to explain how they used AI in an assignment, reinforcing the importance of transparency in both academic and professional contexts.

Sample Self-Assessment Memo

Here is an example of a self-assessment memo for students to be transparent in their use of AI.

Self-Assessment Memo:
Your final project must also include a one-page, single-spaced reflective memo (see memo format here) that assesses your writing and research process, application of course concepts, and use of digital tools (including AI).

Some questions to consider as you describe your composing process and challenges you might have faced:

- What did you do for the initial research and evidence gathering stage?
- How did you make the move from summary to synthesis and the development of your own argument?
- How did you give more substance and nuance to your argument?
- How did you use the course readings and concepts to enhance your writing and research?
- What other research, tools, or resources did you use (texts, peers, digital tools such as AI, writing center, etc.)?
- What went especially well? What didn't go smoothly and what would you do differently?
- What revisions would you still need to make to strengthen the review for publication?

These questions are meant to offer guidance and generate ideas, but I am looking for depth of thought about any aspect of the assignment and your personal experience and insights while going through the writing, research, and design process.

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Teach AI Skepticism: Understanding Limitations & Bias

AI is not an omniscient or neutral source of information. It can generate inaccurate, outdated, or biased content, making it essential for students to critically evaluate AI-generated outputs. At NDSU, students should learn to verify AI-generated information against credible sources, just as professionals in fields like healthcare, business, and journalism must critically evaluate AI-generated information.

Instructor Tip: Incorporate discussions about AI biases and misinformation into research-based assignments, emphasizing the need for human oversight. Assign students to generate and critique AI-generated bibliographies.

Sample Reflective Memo

Here is an example of a self-assessment memo for students to be transparent in their use of AI.

Reflective Memo:
AI As A Writing Tool
2 pages, memo format

AI text generators cannot be used to write your literature review without violating the principles of academic honesty and program policy.

After your literature review is written, experiment with the following:

» **AI-generated bibliographies:** Ask AI to give you a list of sources on your topic. Rephrase the prompt as needed to get the kinds of sources you're looking for. Examine every source. Is it authentic or "hallucinated"? Can you find that source on Web of Science or Google Scholar? Is the citation information provided accurate? If AI summarizes the content of each article, is it accurate (confirm by looking through the actual article)? Would any of these sources and information be relevant, appropriate, and useful for your literature review paper? Keep careful record and observational notes about the AI-generated bibliography.

» **Prompt engineering:** ask AI to complete part (or all) of your literature review. Rephrase and refine your prompts several times. Layer prompts to build complexity. Include specific requests about content, word count, context, audience, style/tone, purpose, and larger significance. Keep careful record and observational notes about your prompts and the effectiveness of the outputs.

» **Evaluate AI outputs:** analyze the strengths and weaknesses of the outputs in response to your prompts. Make sure to apply class criteria for evaluating literature reviews (and your own newly formed knowledge of its genre conventions and audience expectations). Point to specific evidence from the AI text, and explain your reasoning about its successes, limitations, and/or failures in meeting those expectations.

Begin your memo by introducing your purpose to evaluate and reflect on the effectiveness of AI as a writing tool for a literature review. What assumptions might people have about AI—its strengths and weaknesses? What do you hope to learn from this experiment? What specifically are you testing and why?

Your body could use three headings to signpost sections to the memo:

1. Research and AI-generated bibliographies,
2. Prompt engineering, and
3. Analysis and critique of AI outputs.

Each section should touch on your methods (what you asked AI to do and why), your results (what AI produced and general patterns or trends you noticed), and your discussion (what were the strengths and weaknesses of the tool, what were your criteria for evaluating those strengths/weaknesses).

Conclude your memo with general reflections on AI as a tool in the writing process. What is your assessment of its strengths and weaknesses? How does the AI-generated review compare to your own human-generated review? How is using AI in a professional/workplace context similar to and/or different from its use in an academic/educational context?

Attachments: please include your complete outputs.

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Address Privacy, Security, And Intellectual Property

AI tools can collect and store data, raising privacy and intellectual property concerns. Some platforms retain user input, which could violate FERPA and expose sensitive or copyrighted material. Instructors should help students understand that using AI responsibly means protecting personal data and respecting intellectual property.

Instructor Tip: Warn students about inputting sensitive or protected information into AI platforms and discuss the legal and ethical considerations around AI-generated content.

Cultivate AI Fluency And Professional Readiness

To prepare students for a workforce where AI is increasingly embedded in daily tasks, instructors can integrate AI literacy into courses by teaching students to:

» **Choose the appropriate AI tool** – Different AI technologies serve different purposes. Help students learn when to use AI for research, writing, data analysis, coding, or creative ideation.

» **Prompt AI effectively** – The quality of AI output depends on how questions are framed. Encourage students to refine their prompts for more accurate and useful responses.

» **Evaluate AI-generated outputs** – AI content should always be assessed for accuracy, bias, and appropriateness. Guide students in evaluating AI responses.

» **Add human value** – AI can assist with efficiency, but human judgment, creativity, and ethical reasoning remain essential. Design assignments that require students to critique, expand, or refine AI-generated work rather than passively accepting it.

» **Adapt to evolving technology** – AI is rapidly changing, and students need to be flexible learners. Encourage curiosity and responsible experimentation with AI tools to help students develop adaptability in their future careers.

Instructor Tip: Design assignments that require students to critically engage with AI outputs, reinforcing that AI literacy is a key professional skill.

Conclusion

As AI becomes a more prominent tool in education and the workforce, instructors at NDSU have a unique opportunity to guide students in using it responsibly and effectively. By setting clear expectations, promoting transparency, and encouraging AI literacy, instructors can help students develop critical thinking skills that extend beyond the classroom. AI should not replace human expertise but serve as a tool that enhances learning, ethical decision-making, and professional readiness. By fostering responsible AI use, instructors equip students to navigate an evolving technological landscape with integrity and confidence.

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