

## **Policy for the Use of Generative AI in Graduate Milestone Projects**

### **Department of Environment and Sustainability**

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Academic integrity and intellectual rigor are fundamental values of the Department of Environment and Sustainability. The department asserts that the goal of a graduate education is to learn the skills needed to become an independent scholar who can engage in the work of generating new knowledge and innovative ideas. Generative artificial intelligence (AI), when used thoughtfully, responsibly, and transparently, may help students organize their ideas, review the literature, refine methodological approaches, and improve clarity of communication. Although AI tools can be a valuable, there are many ethical concerns that it can also hinder the development of intellectual skills and undermine academic integrity.

The following document summarizes the department's policy for acceptable and unacceptable use of generative AI for graduate milestone projects and products. This policy does not apply to generative AI use in graduate coursework, which is determined by the graduate school and the individual instructor.

This document is subject to change as AI research tools mature and their use in research processes is better understood. Additionally, unlike the Graduate Handbook, where the student is obligated to the version dated to their entry into the program, students are obligated to the most recent published version of the AI policy.

#### **What is Generative AI?**

This policy pertains to restrictions on the use of *generative* AI. Generative AI is a type of artificial intelligence that can create new content—such as text, images, videos, music, artwork and synthetic data—based on user inputs. By analyzing large datasets, these AI systems learn patterns and structures, enabling them to generate content similar in style and characteristics to the original material used in training. This process uses machine learning models to produce results that reflect the characteristics of human-created content. Examples of generative AI include popular tools such as ChatGPT, Gemini, DeepSeek, Grok, and Claude. Tools that are not generative, such as spellcheckers, auto-annotation tools (e.g., EndNote, Zotero), and built-in grammar corrections (such as in MS Word) are not restricted by this policy. There are many concerns regarding the use of generative AI that users need to consider. These necessitate great care when using generative AI in academic work:

- Does the AI platform use content that violates the intellectual property of other individuals, especially if these are not referenced correctly?

- Who owns the output from generative AI? Content fed into an AI tool may become the property of the AI company, which may not comply with university and funding agency policies, journal publishing agreements, and the student's own right to own their data.
- Does feeding research data into AI platforms risk identifying human subjects, release confidential information, and compromise IRB requirements?
- Does the AI platform reproduce and perpetuate cultural biases and scientifically proven non-facts from its original training data?
- Can the student claim independent scholarly credit in theses, dissertations, journal publications, and other works for work that was co-produced with AI agents?

### **Uses of Generative AI for Graduate Work**

The Department of Environment and Sustainability encompasses a wide range of disciplines and perspectives on scholarly research, from the natural sciences, social sciences, and humanities. As such, this policy is intentionally flexible. Below are descriptions of AI uses relative to the research process, along with general suggestions for acceptable and unacceptable use. However, it is up to the student, their advisor, and their committee to ultimately agree on the thresholds of acceptable use within the below boundaries.

Idea development: AI may be used to support early-stage brainstorming, exploring alternative perspectives and counterarguments, clarifying complex concepts, and investigating applicable methodologies. In these cases, AI should be used to prompt reflection, comparison, and critical thinking. It should not be used to wholly generate research questions, hypothesis, conclusions, or replace the student's own critical thinking and reasoning.

Literature engagement: AI tools may not be used as a replacement for rigorous literature reviews, but they may assist with preliminary literature-related tasks. These may include identifying broad themes across sources, comparing perspectives, or helping students orient themselves to a body of scholarship. Students remain responsible for reading relevant sources directly, evaluating their relevance, and ensuring that all interpretations, syntheses, and citations provided by AI tools are accurate. While students may prompt AI tools to reflect on academic literature, they may not upload copyright-protected materials into AI tools without explicit permission of the copyright holder.

Research Development: AI may be used to help students develop and manage project milestones, outlines, tasks, and timelines. These uses are appropriate when they help students plan and refine their work with the goal of greater efficiency. Students may use AI to assist with technical coding (e.g., MATLAB, Python, R) and debugging. They may also use AI to assist with developing qualitative coding schemes, clarifying interview questions, and developing survey instruments. However, use of AI in these cases must be approached with caution. Students are

solely responsible for verifying the accuracy of computational workflows, as well as the methodological rigor of coding schemes, interview questions, and survey instruments.

Data Analysis: Using AI tools for qualitative and quantitative data analysis must be approached with caution and is generally discouraged at this time. Some analytical software incorporates AI tools, such as MAXQDA to assist with qualitative coding, and tools to assist with R and python coding. The student should discuss the merits and limits of using these and similar tools with their advisor. AI should not be treated as an autonomous analytic authority without thorough vetting of its methodologies to ensure accuracy and replicability. Presenting analyses as a product of one's research without full methodological understanding of how it was produced conflicts with the expectation of rigorous scholarship. Analytic decisions, interpretations, and conclusions must remain the student's own work and scholarly judgment.

Writing: AI may potentially be used in limited ways to improve grammar or clarity in text the student has already shaped into near final draft form. Caution is advised, however, as AI can shape the tone of the writing (often reducing originality), introduce inaccuracies, and potentially cause problems for proving the product's authenticity. For example, some academic journals that have banned the use of AI for text creation may reject AI-modified content. To prevent any concerns, a separate draft should be retained prior to any use of AI writing support. Use of AI tools is not permitted for text creation beyond grammar and clarity. It should not be used to generate paragraphs or core sections of a qualifying exam, thesis, dissertation, capstone project, to produce substantial original text on the student's behalf, or to paraphrase large sections in ways that obscure authorship. AI tools must not be used to fabricating citations, sources, or datasets. Figures, images, and other media generated using AI tools must be credited as being AI generated, otherwise they cannot be used in milestone products.

### **Confidentiality, Data Protection, and Copyright**

It is critically important that students understand the risks of feeding research data into AI tools. Unless permission is explicitly granted by the advisor, students must not upload unpublished sensitive or proprietary datasets. These may include field data, lab results, model outputs, interview transcripts, survey outputs, as well as any other forms of data that may be deemed protected by IRB. Collaborator-shared materials must also not be uploaded without permission of the collaborator. The student should work with their advisor to understand what data may be covered by confidentiality and privacy protection. Finally, students should avoid uploading published papers and other content that may be covered by copyright laws.

### **Advisor and Project Committee Oversight**

Graduate students are required to discuss their use of generative AI with their advisor and committee members. While this document outlines a general policy, the student-advisor agreement carries much of the responsibility of determining whether the use of AI is within the

approved scope. It is best to cover the expectations and restrictions on generative AI use with the advisor in the first semester, again prior to commencing research activities and degree milestones, and in sequential committee meetings as milestones progress. In addition, students should consult with their advisor and committee to ensure their work complies with professional guidelines on AI tools in their professional field, such as from the APA:

<https://www.apa.org/pubs/journals/resources/publishing-tips/policy-generative-ai>.

### **Disclosure of AI use for Graduate Milestone Projects**

Students remain fully responsible for the originality, accuracy, and integrity of all submitted work, including carefully checking any AI-assisted material, protecting sensitive or confidential information, and disclosing substantial AI use in accordance with university, departmental, and advisor expectations. Proper disclosure of AI use is essential. This means acknowledging how AI tools were used. Given how rapidly generative AI is changing scientific research, it is also recommended that students acknowledge when AI tools were not used. Explicitly stating that AI was or was not used will help maintain trust with committees, advisors, and the intended audience of the work, and ensures the work is evaluated fairly.

At the conclusion of a project (i.e., at the time of the final defense or approval process), disclosure of specific use of generative AI must be made to the committee and included within the draft of final project document. This will allow early feedback on whether the disclosed use of AI is acceptable before submitting any final documents to the department and college.

#### Examples of acknowledgement statements when no generative AI was used

"No generative AI was used in the creation of this work. All research, writing, and revisions are my own work."

"No generative AI was used in preparing this project. All content was generated independently by the author. Assistive AI was used to correct spelling and minor grammatical errors."

#### Examples of acknowledgement statements when AI was used

General structure: "I attest that any use of generative AI in the preparation of this document has been fully disclosed. All substantive ideas, analyses, interpretations, and conclusions are my own. I acknowledge the use of [AI system(s)] to [specific use of generative AI]. I entered the following prompts [list of prompts]. The output from these prompts was used to [explain use]. A record is included in X."

Example: I attest that any use of generative AI in the preparation of this document has been fully disclosed. All substantive ideas, analyses, interpretations, and conclusions are my own. I acknowledge the use of ChatGPT (<https://chat.openai.com/>) to refine the introduction chapter. I submitted a draft of my introduction and entered the following prompts on 17 March 2025:

“Improve the academic tone and accuracy of language in this document.” The original output was then adapted and modified on my own several times to produce the final version. See Appendix A for the full transcript.

### **Violations of AI Policy**

Using generative AI without proper disclosure is a violation of UB’s [Academic Integrity](#) policies. In the event of a suspected violation of AI Policy, the advisor and committee will notify the student to seek resolution. Violations may also be referred to the Department of Environment and Sustainability Graduate Committee for resolution, or to the UB Graduate School’s Office of Academic Integrity. If a student is sanctioned by their committee or the department for the violation, the UB Academic Integrity office must also be notified in accordance with the UB Graduate School policies.