

# AI Policy

⚠ Page Under Development

This policy is being developed. Check back for updates.

## 1 Overview

AI tools pose both opportunities and risks for climate risk analysis and for learning. Here, AI refers to tools like Claude, Gemini, ChatGPT, and similar, rather than to physics-informed machine learning.

As described in the syllabus, you are welcome to use AI tools **thoughtfully, carefully, and appropriately**, with the understanding that the fundamental purpose of this course is to help you build fundamental understanding, application-relevant skills, and critical thinking. This page provides detailed guidance that will help you understand what is meant by thoughtfully, carefully, and appropriately.

## 2 Guiding Philosophy

There is no ban on AI in this course unless a specific assignment states otherwise. Instead, we operate on three principles:

1. **Shared Responsibility:** I commit to teaching you; you commit to learning. If you use AI to bypass thinking (e.g., generating code you don't understand), you cheat yourself of the skills you are spending your time (and money!) to learn.
2. **Assessment Design:** Most grading relies on in-class assessments (Exams & Quizzes) and critical critiques which are difficult to "game" with AI.
3. **Open Dialogue:** We will talk openly in class about how we are using these tools. We are learning together how to use them constructively. This requires being able to discuss our use of AI without worrying that we will be shamed for admitting that we use them. However, in the same spirit we commit to accept constructive criticism of our (mis)use of AI tools.

## 3 Logistics

As Rice students, you have free access to the following tools:

- Rice provides you with access to Gemini. Google states they will not use your data to train their model when you use your Rice login. The guided learning feature is new, and purports to help
- NotebookLM is an app powered by Gemini that is designed specifically for reading and asking questions about documents, which you must provide as context.
- GitHub Copilot is an extension for VS Code that can provide suggestions for code completion and editing. It is free for students and educators.
- More Useful Things has a library of prompts created by Ethan Mollnick and Lilach Mollick that can be useful for students and instructors.

- Grammarly lies somewhere between a traditional AI tool and a spell checker. It can be useful for improving your writing and giving you writing feedback.

## 4 Critique

There is currently a **tremendous amount** of publicity and hype around AI tools. Some of it is well-founded; there are legitimately impressive technological achievements! At the same time, balance is sorely lacking. The following resources provide substantive and nuanced critiques of AI technologies, politics, economics, and business cases far more eloquently than I could.

- AI Snake Oil is a blog that seeks to dispel hype, remove misconceptions, and clarify the limits of AI. The authors are in the Princeton University Department of Computer Science.
- Where's your Ed At is a newsletter and podcast that is deeply critical of the politics and business of AI
- Tech Won't Save Us is a podcast that covers the tech industry, including but not limited to AI, from a critical political perspective.

You may find that you agree or disagree with these critiques, but you are strongly encouraged to seek a broad set of perspectives.

## 5 AI in Risk Analysis

*Coming soon*

- There are specific instances of AI tools accelerating scientific discovery, when used appropriately and when claims are verifiable [1]

## 6 AI in Learning

*Coming soon: Discussion of how AI can enhance and potentially harm the learning process.*

- Strong and highly publicized claims that using AI led to reduced learning [2], [3], although others have argued that the study focused on a particularly inappropriate use of AI for writing and is not necessarily representative of all AI-enhanced writing
- Everyone in the education system is trying to figure out what AI means [4]
- Gemini has a learning mode that works best if you give it reliable, vetted material
- NotebookLM can be helpful for reading papers – though it is an LLM that hallucinates and also is only as good as its text extraction from the underling PDF which is often a pain point

## 7 Some Suggestions

*These are things that I have tried and found useful. Please add your own suggestions*

1. I disable autocomplete in VS Code, I find it not only annoying but that it robs me of my own thinking
2. Asking for feedback on your work can be helpful.
  - **Note:** the AI is not a person. Do not ask it “what do you think?” Instead, ask it to simulate or role play. For example: “imagine you are a college professor who is notoriously pedantic about efficient writing. Please provide constructive feedback on my draft.”
  - The advice provided is often pretty bad. Trust yourself!

3. Don't just ask it to write code for you from scratch. Instead:
- First, ask it to help you think through how to structure the problem.
  - Then, ask it to help you find documentation and correct your syntax.

## 8 References

### Bibliography

- [1] S. Bubeck *et al.*, "Early Science Acceleration Experiments with GPT-5." Accessed: Nov. 23, 2025. [Online]. Available: <http://arxiv.org/abs/2511.16072>
- [2] N. Kosmyna *et al.*, "Your Brain on ChatGPT: Accumulation of Cognitive Debt When Using an AI Assistant for Essay Writing Task." Accessed: Jun. 15, 2025. [Online]. Available: <http://arxiv.org/abs/2506.08872>
- [3] H. Bastani, O. Bastani, A. Sungu, H. Ge, Ö. Kabakçı, and R. Mariman, "Generative AI without Guardrails Can Harm Learning: Evidence from High School Mathematics," *Proceedings of the National Academy of Sciences*, vol. 122, no. 26, p. e2422633122, Jul. 2025, doi: 10.1073/pnas.2422633122.
- [4] United Kingdom Department for Education, "Generative Artificial Intelligence (AI) in Education." Accessed: Jun. 17, 2025. [Online]. Available: <https://www.gov.uk/government/publications/generative-artificial-intelligence-in-education/generative-artificial-intelligence-ai-in-education>