

# LEAD 399 AI for College and Career

## Purpose

This is a topics course for juniors and seniors with the goal of exposing students to AI skills and knowledge to prepare you for careers. The course is aimed at a general audience (any major). A diverse group of faculty have met to discuss what is important for such a course, and there was agreement that the following are important: high level understanding of large language models, practicing AI skills, being exposed to drawbacks and common failures of AI, discussing ethical and environmental concerns.

## General Information

**Credits:** 1 credit hour

**Prerequisite:** junior or senior standing

**Mode:** face to face

**Lecture:** Tuesdays 3:30-4:20pm

**Section and CRN:** LEAD 399-001, CRN 53095

**Faculty working group for the course:** Dr. Majid Afshar (Computer Science), Dr. Sean Bartz (Physics), Prof. Farhad Bahram (Communication/Art & Design), Dr. Terry Dean (Music), Dr. James Greene (English), Dr. Molly Hare (Kinesiology, FCTE), Dr. Alicia Jay (Theater), Dr. Jeff Kinne (Computer Science), Dr. Nathan Myers (Political Science), Dr. Cat Paterson (Applied Medicine & Rehabilitation )

**Instructors of record:** Dr. James Greene (English), Dr. Jeff Kinne (Computer Science)

Faculty from the working group will collaborate to deliver the course.

## More Details

The remainder of this document contains a working draft of the course schedule and assignments. The faculty working group will develop the course over the summer.

These details are subject to change, but what follows should be a good approximation of what the course will entail.

We will also take into account student interests/requests once the course gets started. If students have any questions, they can get in touch with any of the faculty in the working group.

## Core emphasis

Practical AI literacy, ethical use, critical evaluation, and responsible application.

## Catalog Description

This one-credit seminar introduces undergraduate students to foundational concepts in artificial intelligence with emphasis on practical literacy, ethical use, and critical evaluation. Students explore how AI tools generate text, images, code, and audio; compare major tools and their strengths and limits; and practice responsible prompting for academic, professional, and everyday use. The course also examines privacy, security, bias, inaccuracy, and AI failures so students can engage AI tools with skill and caution.

## Course Purpose

Students already encounter AI in class, work, and daily life. This seminar helps them become thoughtful users rather than passive consumers. The course emphasizes hands-on practice, discussion, and evaluation rather than technical depth.

## Student Learning Outcomes

- Explain in simple terms how large language models and related AI tools work.
- Use basic prompting strategies to improve AI outputs.
- Compare common AI tools for text, image/design, code, and audio tasks.
- Evaluate AI outputs for accuracy, usefulness, bias, and reliability.
- Identify ethical, privacy, and security concerns in AI use.
- Distinguish between chatbots and more agentic AI systems.
- Describe common AI limitations and failures in real-world settings.
- Make informed decisions about when AI use is helpful, risky, or inappropriate.

## Course Materials and Setup

- Learning management system access
- Access to multiple instructor-selected AI tools
- Notebook or digital space for prompt logs and reflections
- Institutional policies on AI use, privacy, and academic integrity

## Assignments and Grading

Suggested assignments are intentionally short and practical to fit a one-credit seminar.

Assignment	Weight	Purpose
Attendance and participation	20%	Seminar discussion and in-class engagement
Weekly AI lab notes	25%	Short reflections on tool use, output quality, and lessons learned
Prompt log	10%	Tracks prompt revision and improvement over time
Tool comparison brief	15%	Compares AI tools on the same task
Ethics / privacy case response	10%	Applies course ideas to a realistic scenario
Final applied reflection or demonstration	20%	Uses one real task to show practical AI literacy

## Weekly Course Schedule

Weeks can be adapted to local calendars. The sequence below assumes one seminar meeting each week.

### Week 1 — What Counts as AI?

Objectives

- Define AI in broad, student-friendly terms.
- Identify where students already encounter AI.

In-class focus: Myths versus realities; everyday examples of AI.

Assignment: AI Lab Note #1: Where do I already meet AI?

### Week 2 — How Large Language Models Work

Objectives

- Explain, at a basic level, how LLMs generate responses.
- Distinguish prediction from understanding.

In-class focus: Tokens, patterns, prediction, and why fluent output can still be wrong.

Assignment: Short reflection: What surprised me about how AI works?

### Week 3 — Prompting Basics

Objectives

- Practice writing clearer prompts.
- Revise prompts to improve output quality.

In-class focus: Role, task, context, constraints, and prompt revision exercise.

Assignment: Prompt Log entry #1 with three prompt revisions.

#### **Week 4 — AI for Text**

Objectives

- Test AI tools for brainstorming, summarizing, drafting, and revising.
- Evaluate when text generation is useful and when it becomes risky.

In-class focus: Helpful support versus overreliance; quality check of generated writing.

Assignment: AI Lab Note #2 using a text-based task.

#### **Week 5 — AI for Images and Design**

Objectives

- Explore how image and design tools generate outputs.
- Evaluate usefulness, originality, and limitations.

In-class focus: Prompting for visuals; when good-looking is not the same as good.

Assignment: Submit one AI-generated visual with critique.

#### **Week 6 — AI for Code and Problem Solving**

Objectives

- Examine how AI supports coding or structured problem solving.
- Recognize the risks of trusting generated solutions too quickly.

In-class focus: AI as helper versus answer machine; debugging AI output.

Assignment: AI Lab Note #3 on a code or logic task.

#### **Week 7 — AI for Audio and Sound**

Objectives

- Identify how AI tools generate or manipulate audio.
- Discuss creative uses and concerns.

In-class focus: Voice, sound, and music tools; authenticity and misuse.

Assignment: Short discussion post on one audio or sound application.

### **Week 8 — Comparing Popular AI Tools**

Objectives

- Compare tools for quality, speed, usability, and trustworthiness.
- Match tools to appropriate tasks.

In-class focus: Side-by-side tool comparison; strengths and weaknesses.

Assignment: Tool Comparison Brief assigned.

### **Week 9 — Accuracy, Hallucinations, and Verification**

Objectives

- Define hallucination in plain language.
- Practice checking AI claims against reliable sources.

In-class focus: Confident nonsense and basic verification strategies.

Assignment: AI Lab Note #4: Find and analyze one incorrect output.

### **Week 10 — Bias and Fairness**

Objectives

- Recognize that AI outputs can reflect bias.
- Evaluate how biased outputs can affect real people.

In-class focus: Examples of biased outputs and fairness discussion.

Assignment: Ethics / Privacy Case Response prompt released.

### **Week 11 — Privacy, Security, and Risk**

Objectives

- Identify what should not be entered into AI tools.
- Explain major privacy and data risks.

In-class focus: Personal, school, and workplace data; safe-use rules.

Assignment: Short checklist: safe and unsafe AI uses.

### **Week 12 — Ethical and Responsible AI Use**

Objectives

- Distinguish ethical help from misuse in coursework.
- Reflect on transparency and responsibility.
- Discuss broader societal impacts of AI including environmental sustainability.

In-class focus: Course policy examples, academic integrity scenarios; energy consumption and environmental costs of large AI systems and trade-offs between AI benefits and sustainability

Assignment: Ethics / Privacy/ Societal Impact Case Response due.

### **Week 13 — AI in Workplaces and Careers**

Objectives

- Explore how employers may expect graduates to use AI.
- Discuss skill, judgment, and human oversight.

In-class focus: AI as a workplace literacy skill; resume, communication, and planning examples.

Assignment: AI Lab Note #5: workplace-use scenario.

### **Week 14 — Chatbots vs. Agentic AI**

Objectives

- Distinguish chatbot-style interaction from agentic systems.
- Discuss what changes when AI can act, not just respond.

In-class focus: Assistants, agents, automation, benefits, and new risks.

Assignment: Prompt Log entry #2: compare a chatbot task and an agent-like workflow.

### **Week 15 — AI Failures and What They Teach Us**

Objectives

- Analyze real or simulated AI failures.
- Explain why failure matters for trust and decision-making.

In-class focus: Failure cases and human oversight.

Assignment: Final project workday or proposal.

### **Week 16 — Final Demonstrations and Reflection**

## Objectives

- Demonstrate practical AI literacy.
- Reflect on responsible future use.

In-class focus: Student presentations or mini demonstrations; course wrap-up.

Assignment: Final Applied Reflection or Demonstration due.

## Assignment Details

**Weekly AI Lab Notes:** 150–250 words. Students document the tool used, the prompt or task attempted, what worked, what failed, and what they learned.

**Prompt Log:** Four to six entries across the semester showing prompt revision and how changed wording affected output.

**Tool Comparison Brief:** Two to three pages or a short slide deck comparing multiple AI tools on the same task using shared criteria such as accuracy, clarity, ease of use, trust, and best use case.

**Ethics / Privacy Case Response:** One to two pages applying course ideas to a realistic case involving privacy, bias, misinformation, academic use, or workplace use.

**Final Applied Reflection or Demonstration:** Three to four pages, a five-minute presentation, or equivalent. Students present a real task, explain tool choice, show sample output, evaluate the result, and decide whether they would trust the tool again.

**Academic integrity and AI use:** Students may use approved AI tools for course activities, but they must disclose when and how AI was used and remain responsible for checking accuracy and appropriateness.

**Implementation note:** For easy grading in a one-credit seminar, weekly work can be assessed as Complete, Incomplete, or Strong.