



# TEACHING NOTE for an in-person or hybrid class

Course Title: Mastering Prompt Engineering: Enhancing AI Interactions

## Teaching Objectives:

To provide students with a comprehensive understanding of the principles and techniques of prompt engineering.

To equip students with practical skills in designing and refining prompts for AI models.

To foster an understanding of the ethical considerations in prompt engineering and an awareness of future trends in the field.

## Teaching Strategy:

This course is designed to be interactive and hands-on. While there is a theoretical component, the focus is on practical skills that students can apply in real-world AI applications. The course is suitable for all types of students, regardless of their AI or computer science background.

### Lesson 1: The Basics

Objective: Introduce students to the fundamentals of AI models and the principles of prompt design.

Strategies:

1. **Lecture:** Begin with a lecture on AI models and how they respond to prompts. Use real-world examples to illustrate these concepts.
2. **Group Activity:** Have students work in groups to design simple prompts for a given AI task. This will give them hands-on experience with prompt design.
3. **Discussion:** Facilitate a class discussion on the challenges of prompt design. Encourage students to share their experiences from the group activity.

### Lesson 2: Advanced Prompt Engineering

Objective: Delve into advanced techniques for prompt design, including eliciting specific responses, handling ambiguity, and designing prompts for complex tasks.

Strategies:

1. **Lecture:** Start with a lecture on advanced prompt design techniques. Use examples to illustrate these techniques.
2. **Individual Activity:** Have students design and refine prompts for a complex AI task. This will give them hands-on experience with advanced prompt engineering.
3. **Discussion:** Facilitate a class discussion on the challenges of advanced prompt engineering. Encourage students to share their experiences from the individual activity.

### Lesson 3: Ethical Considerations and Future Trends

Objective: Explore ethical considerations in prompt engineering, including mitigating bias and handling harmful or unwanted responses, and discuss future trends in the field.



### Strategies:

1. **Lecture:** Begin with a lecture on ethical considerations in prompt engineering and future trends in the field. Use real-world examples to illustrate these concepts.
2. **Group Activity:** Have students work in groups to analyze a case study on ethical issues in prompt engineering. This will give them hands-on experience with ethical analysis.
3. **Discussion:** Facilitate a class discussion on the ethical considerations and future trends in prompt engineering. Encourage students to share their insights from the case study analysis.

### Proposed Assessment:

**Class Participation (20%):** Students will be assessed on their active participation in class discussions.

**Final Project (80%):** Evaluation will be based on creating and refining prompts. Students will be assessed on their ability to design effective prompts, refine them based on feedback, and apply ethical considerations in their prompt design. The evaluation will consider the prompts' clarity, specificity, and effectiveness, as well as the students' understanding of the principles and techniques of prompt engineering.