CMSC 4200 - Artificial Intelligence
Spring 2026
Course Project
-- AI as Problem Solvers --

Artificial Intelligence (AI) has become an important tool for driving efficiency, innovation, and economic growth by automating complex and repetitive tasks, solving problems, and analyzing massive datasets to uncover insights. It enhances decision-making, reduces human error, and powers advancements in fields like healthcare, finance, and engineering.

This document provides information about the course project, its requirements and deadlines. In addition, it provides some ideas for your project proposal.

You can work individually or as part of your current assignments group, or you may establish a new group with other students for this project if you have a common interest. The maximum number of members of any group is 3 students. It is expected that bigger groups will have more work and contributions to their projects. This semester, we will focus on analyzing the capabilities of Generative AI chatbots, AI assistants, and Large Language Model (LLM) tools such as ChatGPT, Gemini, and Copilot in solving problems. You need to select one type of problem to analyze the capabilities of such AI tools to solve.

Some possible ideas are:

1. Using AI for writing programs using a specific programming language.
2. Using AI for debugging programs written in a specific programming language.
3. Using AI to improve and add new features for existing programs written in a specific programming language.
4. Using AI to solve problems of a specified computer science subject.
5. Using AI to solve problems of some mathematical topics.
6. Using AI to solve problems of some other topics.
7. Using AI to predict future trends of some aspects such as stock prices.

This project has three submission components listed in the table:

#	Project Components	Due Date	Grade	D2L Submission Dropbox
1	**Project Proposal:** In this proposal, you need to include information about: 1. The group members 2. The title of your project 3. General description of your project 4. What is the type of problem you plan to investigate? 5. What AI tools do you plan to use? 6. What are you expecting to achieve? 7. Why is this project important?	Thursday 2/26/2026 at 11:59pm EST.	10%	Project Proposal
2	**Project Presentation**: You need to prepare a 15-minute presentation that answers these questions: 1. What was your project about? 2. What was your approach in conducting this analysis? 3. What were the AI tools you used? 4. What were the problem examples you used to conduct your investigation? 5. Could AI solve both basic and complex problems within the project topic? 6. Were there any limitations in solving some problems? 7. What are the reasons for these limitations? 8. What was the success rate in solving problems? 9. What were other observations from your analysis? 10. Do you have any recommendations based on your findings? **Note**: You need to send me an email to inform me that you plan to present your project 24 hours before your presentation time.	During any class time but before the class of 5/2/2026	35%	Project Presentation
3	**Project Paper**: Your paper should provide the details of your findings and all presentation questions. In addition, you need to answer those questions: 1. What do you think about the future of AI? 2. How will the future of AI impact us? What should we do? **Note**: Your paper should be a minimum of 6 single-space pages.	Monday 5/4/2026 at 11:59pm EST.	55%	Project Paper