

CSCI 377: Artificial Intelligence

Fall 2018

Basic Information

Professor: Mark Hopkins, hopkinsm AT reed DOT edu

Class Schedule: MWF 9-950am in Eliot 314

Office Hours: Tu 445-545pm, W 10-11am, Th 1030-1130am in Library 314

Textbook: *Artificial Intelligence: A Modern Approach (3rd edition)* by Stuart Russell and Peter Norvig. Make sure to get 3rd edition! AI has progressed a lot since the first edition.

Website: <http://markandrewhopkins.com/csci-377-artificial-intelligence/>

Overview

This course teaches you the fundamentals you need, in order to be an informed, well-rounded practitioner of artificial intelligence. At a high level, it focuses on three topics: logic, search, and probability. While (hopefully!) you have some experience with all three of these subjects in previous classes, the focus of this course will be on: (a) coming to terms with the fact that almost everything we want to do is NP-hard or worse, and then (b) sometimes successfully doing it anyway.

Coursework

Homework: There will be short but very regular homework assignments. They are important to do, so that you can learn the material well. It is less important that you get the answers correct than that you give a good faith effort. We will spend a good chunk of class time tackling homework assignments together. You will be required to hand in homework solutions, with the freedom to skip **four** homeworks over the course of the semester without penalty. I would, however, encourage you not to exercise this freedom unless necessary.

Projects: There will be four projects during the course. These are the famous “Pac-Man” projects developed at UC Berkeley. You will have two weeks to complete each project. You will have **two** slack days to spend (cumulative, for all four projects).

Exams: There will be three exams during the course: two midterms and a final. Each exam is weighted equally and covers one module of the course. In other words, there will be one exam about logic, one exam about search, and one exam about probability. The final will not be comprehensive of the entire course and will not be worth more than the midterms. This means that once you take the logic exam, you can forget everything you ever knew about logic, but I hope you don't.

Grading

Your final grade will be according to the following formula: 15% homework, 45% exams (15% for each exam), 40% projects (10% for each project).

Collaboration

Collaborating on homework and projects is permitted, but each student must write up homework independently, and must do the actual programming on the projects independently (no cutting and pasting somebody else's code!) Also, you should acknowledge the names of anyone who you collaborated with.

Reading Assignments

Reading assignments will be posted on the website a minimum of two days in advance of each lecture. I will assume that the reading is done prior to lecture.

Disability Accommodation

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your professor and the Office of Disability Support Services, disability-services@reed.edu or 503-517-7921 as early as possible in the semester. Please be aware that requests may take several weeks to implement once approved, and that accommodations are not retroactive.