CSE 312: Foundations of Computing II — Spring 2018

Course Syllabus

Information At-A-Glance

Instructor:

Name: **Adam Blank**
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Office: CSE 444

Office Hours:
`Mon:` 10:00am – 11:00am
`Tue:` 12:00pm – 1:00pm
`Fri:` 2:30pm – 3:30pm

Or by private meeting.

Course Website:

`http://cs.uw.edu/312`
Visit early. Visit often.

Lecture

MGH 389 on MWF
1:30 PM – 2:20 PM

Optional Textbooks:

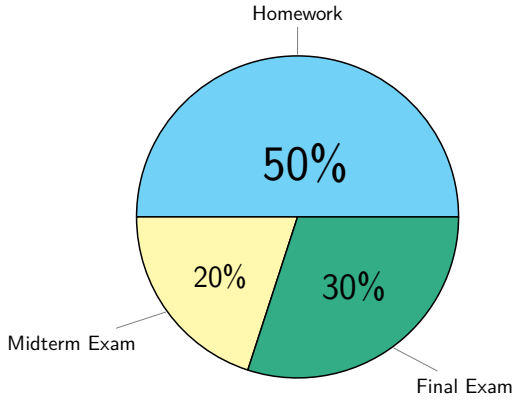
- Bertsekas and Tsitsiklis, *Introduction to Probability*
- MIT 6.042 Text
- Rosen, *Discrete Mathematics and Its Applications*

Course Overview

This course covers combinatorics and probability from a computer science lens. Prerequisite: CSE 311. Examines fundamentals of enumeration and discrete probability; applications of randomness to computing; polynomial-time versus NP; and NP-completeness.

Assessments

Every assessment we give you has a very important purpose to your understanding of the material. Here's a handy pie chart that explains how your grade will be calculated:



Homework. The homework is the heart and soul of this course. You will practice the concepts we discuss in class in three types of questions:

- Some of the questions will be *written exercises*. These will usually be logical analyses.
- Some of the questions will be *programming exercises*. These will usually be applications of the material we're studying.

Exams. We will have one midterm and one final exam. The midterm will be held in lecture.

To pass the course, you must turn in an attempt at every homework assignment.

Grading Policy

For each homework question, we will determine if it is "substantially correct" or not. If it is, you will receive full credit for that question (even if there are minor errors). If it is not, you will receive a zero for that question. You will be allowed to re-submit any and all questions at most *two* times without penalty after you have received feedback. Our goal is *mastery* of the material–not point collection.

If unusual circumstances truly beyond your control prevent you from submitting an assignment or attending an exam on time, you should discuss this with the instructor, preferably in advance. (Even if you're sick in bed at home, you should still be able to send an email.) If you contact the instructor well in advance of the deadline, we may be able to show more flexibility in some cases. Mental health is just as valid of an excuse as physical health is; please make sure to reach out if you need to.

Extra Credit

Assignments will often have extra credit problems. They will be scored separately from the regular problems, and they will have relatively little impact on course grades. The main incentive for doing the extra credit problems is for the challenge of doing the problems. Extra credit will be factored into the grade *after grades have already been calculated*.

Getting Help

Please don't be afraid to ask for help if you don't understand something. Adam holds *at least three* office hours a week, and he gets lonely and bored if you don't show up! He also shows up early to lecture and is happy to answer any questions you might have before or after lecture.

At office hours, you can ask for clarification on a lecture (or for a *repetition* of the lecture!). You can ask for help with a frustrating part of the homework. You can even show up just to tell us you're frustrated and vent.

Here's some first steps on how to get help:

- Come to office hours
- Ask someone on course staff questions before/after lecture, before/after section, etc.
- Post on Piazza asking a question

Collaboration & Academic Integrity

As above, there are three types of homework questions: written, programming, and online. These three types of questions have different collaboration policies.

Written and Programming Questions. These must be *written* individually, but it is okay to *discuss* these problems with several other students. You may not *write* up solutions in a group or record anything from your discussions, but we *want* you to attempt them together.

You may *not* consult the Internet for problems or key-phrases. This includes Google, MathOverflow, reddit, and any other website.

If you turn in work that violates the cheating policy, you will be reported to the University.