CS 24: Introduction to Computing Systems — Fall 2023

Course Syllabus

Information At-A-Glance

Instructor	
Name:	**Prof. Blank**
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Office:	ANB 115
Office Hours:	`Tue:` 5pm - 7pm `Fri:` 6pm - 7pm Or by private meeting.

Course Website
`https://com.puter.systems`
Visit early. Visit often.

Lecture
ANB 105
02:00 PM – 02:55 PM

Course Overview

Prerequisites: CS 2 and CS 3.

Basic introduction to computer systems, including hardware-software interface, computer architecture, and operating systems. Course emphasizes computer system abstractions and the hardware and software techniques necessary to support them, including virtualization (e.g., memory, processing, communication), dynamic resource management, and common-case optimization, isolation, and naming.

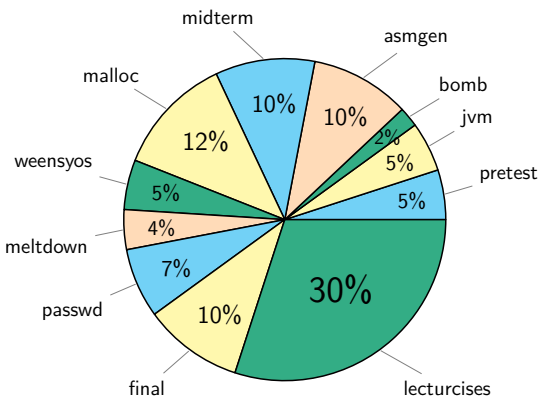
Course Learning Outcomes

By the end of the course, you will be able to:

- Differentiate between how Java and C code run on modern machines
- Translate between high-level and low-level programming languages
- Defend trade-offs between efficiency, security, readability, and performance in your programs
- Explain the mechanisms modern systems use to protect, manage, and virtualize memory
- Describe how modern computers give the illusion of running multiple things at once
- Design a concurrent program which does not have any race conditions

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:



Lecturcises

In most lectures, Prof. Blank will ask students to do "interactive exercises" some subset of which we will call out as "lecturcises". Every week, you will submit written solutions to at least *three* of the lecturcises for credit; each of these is worth approximately 1% of your final grade.

Since the lecturcises are during lecture, this means you'll have both an opportunity to collaborate on them AND hear a sketch of a solution from Prof. Blank! However, after lecture ends, **all lecturcises become completely nocollab with no TA help**. Note that, while you can collaborate during lecture, you should not **write your solutions during lecture**; instead, the write-up is expected to be solo. Though, you can obviously take notes about the solution. Note that if you do not attend a lecture, you can still turn in the lecturcises; they just become solo.

Grade Cutoffs

Please note that there is no way to receive a D in this course. Any score at or below 69% is considered an F, 69-70 is a D+, 70-80 is some kind of C, 80-90 is some kind of B, and 90-100 is some kind of A.

Programming Projects

The projects are the heart and soul of this course. We prefer the term *project* to *set* because all the individual parts of the assignment will come together to create a single finished product that you will be proud of.

Final Exam

The final exam will be **cumulative** with an equal emphasis on all the material in the course. It will likely have both written/typed components and programming components. The time limit will be *24 hours* though we expect nobody will use anywhere near that much time.

Extra Credit

We will keep track of any extra credit you implement. You won't see these affecting your grades for individual projects, but they will be accumulated over all projects and used to bump up borderline grades at the end of the quarter. They are meant to be fun extensions to the assignments.

Late Policy

In this course, you will earn one "late token" per week. On every Saturday of the term, your late token count will increment automatically. Each late token will allow you to submit a project up to 24 hours late; tokens are indivisible and you may not go into "token debt". You may not use more than two late tokens per project.

You do not need to use tokens for serious medical (physical or mental) or emotional circumstances; in such situations, contact the instructor to work out a plan for completing the work in a reasonable time frame.

Getting Help

Please don't be afraid to ask for help if you don't understand something. Prof. Blank holds *at least three* office hours a week, and they get lonely and bored if you don't show up! They also show up early to lecture and are 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
- Post on Ed asking a question

Collaboration & Academic Integrity

See our "collaboration table" on the website. We reserve the right to modify or clarify this policy as needed.