



CS 246 Syllabus C and Unix

Spring 2023

Course Description

3 credits. An introduction to the Unix operating system and programming in C. The history of Unix and C. Unix file systems, common used Unix commands, shells, editors, pipelines, redirection, filters, regular expressions, programming in scripting languages. Programming in C including input and output, control constructs, data types and structures, files, and the interaction between C and Unix.

Prerequisites: Some knowledge of programming, including loops and arrays.

Instructor

Fred Sullivan

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Course Objectives

Students successfully completing this course should:

- Understand the history and evolution of C and Unix.
- Be able to use a shell without the use of windows or a mouse.
- Be able to manipulate Unix files, both locally and remotely.
- Be able to efficiently manipulate text files using filters and pipelines.
- Be able search with regular expressions.
- Write scripts in Bash and AWK.
- Write C programs to do numeric computation, implement filters, etc.
- Write C programs that interact with Unix.

Grading

Two Exams	20% each
Final Exam	20%
Quizzes	10%
Labs and Homework	30%

You must have an average of at least 60% on homework and exams (separately) in order to pass the course.

Makeup examinations or quizzes will only be given for an absence due to a documented case of COVID. If an exam is missed, the final exam grade will count in its place.

Academic Honesty

Working together on programs is not allowed. Copying of programs from any source, including classmates and the Internet, is not allowed. You are allowed to talk to classmates and others about programs, but you are not allowed to look at anyone else's code, either to give or receive help, other than the textbook or code provided by the instructor.

For a first offense, your course grade will be reduced by 1.0. For a second offense, your course grade will be 0.

Cheating on an exam will result in a failing grade for the course.

Help on Programs

If you need help, come to office hours. Make sure that you start programs early enough that you will have time to get help. Coming in for help an hour before a program is due is unlikely to be profitable.

You can email for help, but coming in person is much more likely to be helpful.

Recommended Textbooks

A Practical Introduction to Linux Commands, Editors, and Shell Programming, 4th Edition
by Sobell

Unix and Linux: Visual Quickstart Guide, Fifth Edition by Ray and Ray

The C Programming Language, Second Edition by Kernighan and Ritchie

C for Programmers with an Introduction to C11 by Deitel and Deitel