

University of Washington

CSE 391: System and Software Tools, Course Syllabus, Autumn 2019

Instructor

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Course Overview

In this course you will learn about topics such as:

- basics of navigating a Unix/Linux environment; setting up a basic Unix/Linux system
- using a Unix command-line shell
- Unix file system; file and directory management; processes and process management
- permissions, groups, and users
- pipes and redirection
- connecting to remote servers and using multi-user shared Unix systems
- regular expressions and related tools
- string and text processing basics: filtering, substituting, etc.
- compiling and executing programs from a command line; Makefile basics
- version control basics
- bash shell scripting

You will master none of these skills, but you will gain familiarity with them. An important goal of the course is to become better able to **teach yourself** new concepts through your own reading, searching, and asking questions. This is an important skill expected of all CSE majors, especially important since lecture time here is limited to one hour per week.

Lecture Time

Tuesdays 1:30 PM - 2:20 PM, CSE2 G20

Course Web Site

<http://www.cs.washington.edu/391/>

All resources from class will be posted here. Check the web site daily for any important course-related announcements.

Textbooks

Barrett, D. *Linux Pocket Guide*. 3rd ed., 2016. **Optional**.

No assignments or required readings will be given directly from the textbook, so you may choose not to purchase it if you like. However, it can make a useful reference for looking things up on homework assignments.

Computer Access and Software

The recommended software for the course is the Linux operating system (Ubuntu or Fedora distributions), and related utilities such as `bash`, `make`, `git`, and other standard Unix commands. The department offers a virtual machine for use to students taking this course. The course web site contains links to download this software free of charge.

Students in the CSE major may also access the necessary tools in computer labs in the CSE/CSE2 buildings (CSE 002, 003, and 006 and CSE2 110, 124, and 129) and on the CSE department shared server machine (`attu`).

"Grading" (earning credit in the course)

This is a Credit / No Credit (CR/NC) course; you either get credit or not. All students who earn a total of **at least 14 points** on the nine weekly homework assignments will be considered to have "passed" the course. Our intention is that every student who makes a legitimate effort to learn and complete the material will pass the course. The class is intended to be **low-stress** and geared toward learning and exploration of concepts.

Homework and Lateness

Homework consists of nine weekly individual assignments submitted electronically from the course web site. Weekly homework assignments will be graded on a two point scale. You earn...

- 2 points for a strong attempt at solving the homework assignment. A strong attempt means you have completed every part of the assignment and your answers are of high quality and are nearly correct.
- 1 point for a weak attempt at solving the homework assignment. A weak attempt means that you have put forth some effort, but the answers given are largely incorrect or incomplete or there are unanswered portions of the assignment.
- No points for an assignment that has many missing parts or partial solutions.

Each assignment will have a specific due date in its spec and on the web site. **Assignments will not be accepted late.** If you do not complete a given assignment on time, you will not receive credit for it. But recall that you do not need to turn in every assignment to receive credit for the course. Extensions will not be given on assignments for any reason, except in extreme unavoidable circumstances, as determined by the instructor.

Academic Integrity Policy

This class has a looser collaboration policy than other courses such as CSE 142/143. You are encouraged to talk and work with other students as you complete assignments and to learn from your classmates. However, **the work you submit for the weekly assignments must be entirely your own**. You may discuss general ideas of how to approach an assignment, and you may also talk about some specific details of commands or syntax to use ("try using the tail command on #3" or "I used a for-each loop over the directories"). You should **document any help you receive** from another student or other person at the top of your assignment file(s), listing the person's name(s) and how much / what kind of help they gave you. If you provided significant help to another student or worked closely with another student, you should also document this at the top of your assignment file(s).

Our policy does still have a few **restrictions** on collaboration:

- You may **not** show another student your assignment solution, nor look at his/her solution, in whole or in part.
- You may **not** refer to solutions from previous offerings of this course.
- You may **not** write an assignment for another person nor have someone else write your solution for you.
- You may **not** provide another person with every detail of how to solve a given problem or assignment.

An example of the line between appropriate and inappropriate help would be: It's perfectly fine for a friend to sit with you and show basics about how to use a Linux terminal, or even to show you that the `ls` command is helpful to solve problem #4, and how to find help about the `ls` command in the Linux manual (`man`) pages. But it would not be appropriate for one person to tell another, "I typed exactly `'ls -laR * | grep example | sort -R'` for Problem #4."

As a sanity check, we will run similarity detection software a few times per quarter over student assignments, including assignments from previous quarters. A student who violates the policy may be offered zero credit for that assignment and/or sent to a University committee. The end goal is to learn the material, and this only comes from attempting the work yourself. The assignments are designed to give you practice with the material while providing an environment that is supportive of discussion with other students and a grading policy that is forgiving of answers that are close but not quite perfect. This course allows more collaboration than some others, and in general we encourage you and your classmates to help each other, **but submitting copied work is NOT ACCEPTABLE**. Please do not hesitate to contact the instructor if you are unsure whether a particular behavior is acceptable under our policy.