

University of Washington

CSE 390 A: System and Software Tools, Course Syllabus, Autumn 2014

Instructor

name: Ruth Anderson
email: rea@cs
office: CSE 360
office phone: (206) 616-1742
office hours: *see course web site*

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, HCK 132

Course Web Site

<http://www.cs.washington.edu/390a/>

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*. ISBN 9781449316693, 2nd ed., 2012 (1st ed. 0596006284 is also fine). **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

Most students should be able to use the CSE departmental Virtual Machine (VM) image for this course. The course web site contains links to download the CSE Virtual machine software free of charge. Current CSE majors will also have access to Linux machines in the CSE labs and the CSE server `attu`. The recommended software for the course is the Linux operating system (Ubuntu or Fedora distributions), and related utilities such as `bash`, `make`, `cvs`, `svn`, and other standard Unix commands.

"Grading" (earning credit in the course)

- weekly homework assignments
- take home "final" assignment

This is a Credit / No Credit (CR/NC) course; you either pass or fail. All students who earn **at least 12 points** on the 8 weekly homework assignments (each worth a total of 2 points) and a **passing mark on the "final" assignment** 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 a total of 8 weekly individual electronic assignments submitted from the course web site and one take home "final" assignment. The 8 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.

Academic Integrity Policy

This class has a looser collaboration policy than other courses such as CSE 143. The work you submit for the weekly assignments should be your own, but **we encourage you to talk to and work with other students along the way.** You can talk at greater length and in more detail than you might have in CSE 142/143. 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 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 all student assignments, though we consider it unlikely that students will be accused of violating our policy. A student who violates the policy might be offered zero credit for that assignment. But once again: This course allows more collaboration than others, and in general **we encourage you and your classmates to help each other.** The end goal is to learn this material, and this course does not have a large number of TAs or office hours to provide help, so we will rely on students to help each other out along the way. Please contact the instructor if you are unsure whether a particular behavior falls within our policy.