

# COSC 301: Monday, 27 August 2012

- Logistical stuff
  - Textbook: last-minute change. We're going to use "Operating Systems: Three Easy Pieces" by Remzi and Andrea Arpaci-Dusseau. It is available *free* at <http://pages.cs.wisc.edu/~remzi/OSTEP/>, and a print version can be ordered from Lulu.com (see the OSTEP website for the link).  
You can still use the Silberschatz book if you wish; the syllabus will include the relevant reading sections in that text.
  - Major course goals
    - \* OS design concepts, algorithms, key ideas
    - \* C skills: C is still one of the most important languages to know
    - \* Software dev skills: version control, collaboration, debugging, "systems" programming
    - \* Improve abilities to explain technical concepts
  - Course structure: first two weeks on C, then on to core OS topics
    - \* Periodic homeworks and in-class problem solving. Labs are mainly programming problems in C; we'll stay mostly in user-land (i.e., not in the OS kernel). Lots of important skills to develop through this course... You'll each do a 20-25 minute presentation on a topic in OS that goes beyond what we cover in class, or on a current topic of OS research. More details on that soon. Two midterms (during lab time) and a final.
  - You are responsible for reading the details in the syllabus (on Moodle and Piazza).
- Assignments
  - Complete Piazza signup (you'll get a signup email today)
  - Install virtualbox <http://virtualbox.org> on your personal machine and install the courseware virtual machine appliance (posted on Moodle).
    - \* You can alternatively (and in addition) get an account on our Linux systems in the department. Talk to me and I'll set you up.
  - Sign up for an account on Github or Bitbucket if you don't already have one. We will use the Git distributed version control system this semester. For now, some references to learning git:
    - \* Pro Git: <http://git-scm.com/book> (a free and good book)
    - \* `man gittutorial` (the git tutorial "man" page). Run `man gittutorial` in a terminal in your Linux VM.
  - Read the Bash shell tutorial available on Google: <http://code.google.com/edu/tools101/index.html>
  - Homework 1 is posted in the courseware git repo  
Once you have the Linux VM installed or an account on department systems, do `git clone git@github.com:jsommers/cosc301ware.git`
    - \* Homework is on getting accustomed to the *bash* shell. You'll do most of your lab work in this class through a terminal ("shell") environment.
    - \* No lab this week, but the homework is due Wednesday night
  - If you get all that done, start reading a C reference
    - \* Either Parlante's "Essential C" (posted on Moodle), or Prata's book ("C Primer Plus"), or the classic Kernighan and Ritchie book