

Overview - CS 168 / Fall 2015

Description

This is an undergraduate level course covering the fundamental concepts of networking as embodied in the Internet. The course will cover a wide range of topics; see the lecture schedule for more details. While the class has a textbook, we will not follow its order of presentation but will instead use the text as a reference when covering each individual topic. The course will also have several projects that involve programming (in Python).

Prerequisites

Required: CS 61A, 61B, Math 53 or 54.

You should know programming, data structures, and software engineering. In terms of mathematics, your algebra should be very solid, you need to know basic probability, and you should be comfortable with **thinking abstractly**. The TAs will spend very little time reviewing material that is not specific to networking. We assume that you either know the material covered in those courses, or are willing to learn the material as necessary. We won't cover any of this material in lecture.

The projects will be programmed in Python, but we expect that it will be easy for students to learn enough Python on-the-fly to complete the assignments.

Textbooks

Required:

- [*Computer Networking: A Top-Down Approach, 6th edition*](#) by [Jim Kurose](#) and [Keith Ross](#), 2012.

Computing Facilities

Students enrolled in the class will be given an instructional account, cs168-??@cory. Account information will be emailed to your berkeley.edu account (limit one per student). Most of the Unix systems have cross-mounted file systems, so you can generally work on other EECS Unix systems. Your final run for each assignment must be done under that account, and must run on x86 Solaris machines.

Assignments & Grading Policy - CS 168 / Fall 2015

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Grade Components

Homeworks	15% (3x5%)
Projects	40% (10% + 10% + 20%)
Midterm exam	20%
Final exam	25%

The course will be graded on a curve, with a mean of B (10% A, 15% A-, 15% B+, 20% B, 15% B-, 15% C+, 10% C). A+ is reserved for the best student (or perhaps two) in the class. The curve can shift up for an excellent class, as indicated by strong classroom interaction and outstanding effort; the TAs have significant input into this assessment. Graduate students and reentry students are not included in establishing the curve, but they will receive grades based on where they would fall on the curve. This is [EECS Department policy](#).

Regrades

For HWs, Midterm and Final exams

Any requests for grade changes or regrading must be made within **one week** of when the work was returned. To ask for a regrade, attach to your work a page that specifies:

- The problem(s) you want to be regraded
- For each of these problems specify clearly why do you think the problem was misgraded.

Without this page, your work will **not** be regraded. Even if you ask for only one problem to be regraded, your **entire** work may be regraded, so your score could **decrease**, stay the **same**, or **increase**.

For Projects

Each project would have its own regrade policy defined by the lead GSI for that project. This will be explained when the project is released. Regrade policies across projects may not be **consistent**.

Exams

There will be one midterm and one final. If you have a conflict with any of the exams, let us know as soon as possible to attempt to schedule a makeup.

- The midterm exam will be closed book with a single 8.5" by 11" (both sides) crib sheet.
- The final exam will also be closed book, with **two** 8.5" by 11" (both sides) crib sheets. So you can keep your midterm sheet to reuse it for the final.
- **The crib sheets must be handwritten.** E.g., copy&paste of lecture slides is forbidden.

The exams will cover material from lecture, sections, the readings, and projects. In particular, you are likely to do poorly on the exams and in the course if you do not do your share of the homeworks and projects.

Homework Assignments

Homework assignments are due 1 hour before lecture (unless otherwise noted) on the due date.

Programming Projects

Projects will be graded by a script which will run the submitted code under a variety of conditions. These grades will be determined automatically from the results from the script.

Projects are designed to be solved independently, but you may work with a partner if you wish (but at most two people can work together). Grading will remain the same whether you choose to work alone or with a partner; both partners will receive the same grade regardless of the distribution of work between the two partners (so choose a partner wisely!). You may not share code with any classmates other than your partner. You may discuss the assignment requirements or general programming decisions (e.g., what data structures were used to store routing tables) - away from a computer and without sharing code - but you should not discuss the detailed nature of your solution (e.g., what algorithm was used to compute the routing table). Also, it is your responsibility to **make sure your code is not publically accessible to others in any way**. For example, if you are using *Github*, or other such services, ensure that your repository access is set to private. Likewise, ensure that you do not put your code on public clipboard sites such as *pastebin*. If we find that someone has copied your code (even without your knowledge), you will be deemed equally responsible and will face the same penalty as the person who copied it.

Late Policy

The policy is simple: **no slip dates**. If assignments are late, they are penalized as follows: < 24 hours late, you lose 10%; < 48 hours, 20%; < 72 hours, 40%. More than three days late, **you can no longer hand-in the assignment**.

Cheating

It's OK to ask someone about the concepts, algorithms, or general approaches needed to do the homework and project assignments. We encourage you to do so; both giving and taking advice helps you to learn. However, what you turn in **must be your own**; copying other people's code, solution sets, Google safaris, or from any other sources is **strictly prohibited**. If you are unsure, then **ask**.

Some specifics:

One technique we will use to detect cheating is an automated system that performs comparisons across documents. It flags suspicious similarities, which we then inspect manually.

If elements of two assignments are determined to be clearly very similar (i.e., we believe that they were done together or one was copied from the other), then the **course grade** for all students involved in the incident will be **reduced by one letter grade** for the first offense, and **to an F** for the second offense. ("All" means both the copy-ers and the copy-ees). The grade for that assignment will also be reduced to 0. The reduction in grade may be taken without discussion or warning; the first notice you receive may be a letter indicating the penalty. In addition, for every instance, a letter to the Office of Student Conduct will be attached to your permanent record, and a copy will be placed in the CS division office. More serious cases of cheating (e.g., cheating on exams) will engender accordingly more severe penalties.

Again, note that you are responsible for not leaving copies of your assignments lying around and for protecting your files from unauthorized reading.