cs230 Course information

cs230 – Data Structures
Spring 2002

Allen B. Downey
Computer Science Department

- Professor: Allen B. Downey, adowney@wellesley.edu, Science Center E106, x3318.
- Class time: Monday and Thursday 9:50–11am, SCI E111.
- Lab Instructor: Stella Kakavouli Science Center E131, x3120.
- Lab time: Tuesday 1:30–2:40pm or 2:50–4:00pm, Linux Lab.
- Textbooks: Downey, *How to Think Like a Computer Scientist*, and Stutz, *The Linux Cookbook*. I will distribute both books in class.
- Web page: The handouts that I produce (as opposed to the ones I photocopy from other sources) will be available from the class web page. The URL is

  `http://rocky.wellesley.edu/cs230`

- Class-related email: I don't use a Macintosh or a Windows machine, so please don't send me attached documents in formats other than plain text. I also hate FirstClass and minimize my use of it. You might want to read

  `http://rocky.wellesley.edu/downey/firstclass.html`

Coursework

Work in this class will include readings from the textbook and from additional sources I provide, weekly programming homeworks, two one-hour exams, a final exam, and written quizzes.

The total course load is intended to be 11 hours per week (including class time); the load should be spread evenly across the semester.

- Grading: Final grades are determined by the weighted average of exam scores (15% for the two one-hour exams, 25% for the final), quizzes (15%), homeworks (25%), and class participation (5%). The January Option is not appropriate for the format of this class, so it is not available.
- Exams: The two midterm exams are scheduled for Thursday 28 February and Thursday 11 April. If you cannot attend one of the exams, please let me know as soon as possible so that we can make arrangements.

  If you miss a midterm for an extremely legitimate reason, your final grade will be based on the other exams. If you miss a midterm without a legitimate reason, you will receive a zero. If you miss two midterms or the final for any reason, you cannot pass the class.

- Homeworks: We will have weekly homeworks that are meant to give you an opportunity to apply and practice the material we cover in lecture. You will get the most benefit from these homeworks if you work on them alone, although you are of course free to discuss the problems with other students and me.

  Most homeworks will be distributed in lab on Tuesday so that you will have that time to look them over, get questions answered, and get started. The completed homeworks will be due the following Monday at the beginning of class (9:50am). Late homeworks will be penalized by one point out of 10 for each 24 hour period after the due date. Each student is awarded 2 late days that may be used at any point during the semester, but both may not be used on the same homework.

  In other words, you must turn in every homework, even if it is incomplete, before the beginning of the next lab.

Collaboration

In any class like this, it is difficult to draw a sharp line between accceptable and unacceptable forms of collaboration. Here are some guidelines that might help:

1. In general, it is acceptable to talk about programs using natural languages, but not acceptable to use any formal language, and especially not Java. In other words, you should not be looking at other people's code or showing them yours.

2. It is never acceptable to present someone else's work as if it were your own. Unless stated otherwise, I will assume that all work you hand in is yours and yours alone. If you work with another student, you must acknowledge that student's contribution in writing on your homework. If you get help from me or a TA that constitutes a significant part of the homework, you should acknowledge that, too. If you are not sure, err on the side of caution.

3. It is sometimes tempting to make superficial changes to copied code to disguise it, but I should warn you that (1) similarity between programs is often more obvious than you think, and (2) an attempt to disguise cheating is evidence of guilt, and is a more serious offense since it compounds plagiarism with further deceit.

You reputation for honesty is one of your most valuable assets. If you lose it, you will find it very difficult to recover. There is no grade that you will receive on any quiz, homework, or exam, that is worth risking your reputation for honesty.

Syllabus

The following are the topics we will be covering, in the order we will be covering them.

Topic 0: Review of Java.
Topic 1: Object-oriented programming.
Topic 2: Linked data representations.
Topic 3: Recursion.
Topic 4: Stacks.
Topic 5: Priority Queues.
Topic 6: Trees.
Topic 7: Tables and hashing.
Topic 8: Sorting.
Topic 9: Huffman code.