# Syllabus for Computer Science 365b, Design and Analysis of Algorithms

## **Spring 2015**

[Home] [Schedule]

#### **Course Information**

• Where: DL 220.

• When: Tuesday and Thursday, 2:30-3:45

- **Required** Textbook : Algorithm Design by Jon Kleinberg and Eva Tardos.
- Instructor: <u>Daniel A. Spielman</u>. Office hours: Fridays, 3-5 (17 Hillhouse, room 340) or by appointment.
- Teaching fellows:
  - Newman Wu, Office hours: Wednesdays, 7-9 (AKW 311) Extra office hours: Tuesday, Jan 27, 6-8.
  - Chao Teng, Office hours: Mondays and Tuesdays, 7-8 (AKW 009) (starting after Jan 30)
  - James Williams, Office hours to start after Feb 16.
- You can email the course staff at cs365ta@cs.yale.edu
- The subject of every lecture, along with all readings, assignments and tests are listed on the <u>course schedule</u>. Please consult it regularly.

## **Prerequisites**

The prerequisites for this course are discrete math (CS 202 or Math 244) and CS 223. The background in discrete math is essential. You should be used to reasoning about graphs and have some experience writing proofs. Students will tell you that CS 223 is less essential. But, it would be better to take it first if you can. The main things that are taught in CS 223 that you must know are how to implement basic data structures in a language like C or Java. You should also be able to estimate how many basic operations are required by these implementations. I (Dan Spielman) expect to teach this course every Spring for the foreseeable future. If you have not taken the prerequisites, be sure to familiarize yourself with the material in Chapters 2 and 3 of Kleinberg-Tardos.

## **Course Requirements**

There will be 8 problem sets and two in-class tests. There will **not** be a final exam. The grading breakdown will be:

• Problem sets: 75%

• Tests: 25%

## **Problem Sets**

A perusal of the <u>course schedule</u> will reveal that all problem sets are due in class on Thursdays. However, they will be handed out less regularly. All problem sets must be turned in at the beginning of class. **The problem sets are only distributed via <u>Classes V2</u>, and do not appear here**.

#### **Solution Sets**

Solution sets are only distributed on paper. These solutions are for your own personal use, and are not to be given to other students or stored anywhere that students in future years might encounter them. The one exception to this rule is that you may give a copy of a solutio sets to another student who is presently enrolled in the course.

#### **Late Assignments**

As solution sets will be distributed at the end of class, late assignments will not be accepted. Students who have a Dean's excuse for a problem set will be assigned an alternate problem set.

#### **Collaboration Policy**

In a departure from my policy of previous years, some collaboration will be allowed on the problem sets. You are allowed to discuss the problem sets in small groups of no more than 4 students. However, you are forbidden from taking written notes during your discussions, and you must write your solutions independently and in your own words. You **must** list at the top of the problem set everyone (other than course staff) with whom you have discussed the problem set. Failure to list people with whom you have discussed a problem set is considered a violation of academic honesty.

### Referencing sources

Similarly, if your solution draws on sources such as books or web pages other than those supplied with the course, you must cite those as well.

#### Where to find information

- The course schedule page. Look here first.
- If there is information you need, and it is not on the course schedule page, please look at this page. It should be here
- If neither of these pages reveals what you need to know, you can email the course staff at <a href="mailto:cs365ta@cs.yale.edu">cs365ta@cs.yale.edu</a>. We may choose not to answer questions whose answers appear on these pages.
- If you miss a class and would like to find out what happened, ask another student in the course. Please do not ask the course staff. Also, do not forget to look at the course schedule page to find out which readings go with with lectures.