Welcome to CSE 100
Data Structures

Instructor: Cynthia Lee
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Office Hours: Th 12:20p - 2:00p in CSE 3254

TA: Brian McFee
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Office Hours: TBA

* Questions: All non-confidential questions should be posted to the webboard instead of by email to the instructor or TAs. This is to facilitate faster responses and allow all students the benefit of the answer.

Class Meeting: Tu/Th 11:00a - 12:20p in LEDDN AUD
Discussion: W 1:00p-1:50p in CSB 001
Final Exam: December 10, 11:30a - 2:29p, location TBA

Prerequisites: CSE 12, CSE 21 (or Math 15B), CSE 30 and CSE 70.

Textbook: Data Structures and Their Algorithms by Lewis and Denenberg will be used as a reference for this course. I have put 2 copies on reserve in the S&E library (inside the main library) for those who don't have a book, or ordered one online that hasn't arrived yet, etc. The campus bookstore also has this book.

Passwords:
- Lecture slides (CSE 100 FA08, password to join class: cse100)
- Gradesource (your passwords were emailed to you on the first day of class)
- Webboard (username is your UCSD email name, password is your PID (a############))

Why I think Data Structures are interesting

In data structures we learn how to organize our stuff. It used to be that a person's biggest organization challenges may have been their garage or their closet. Today, we live in an era characterized by an unprecedented deluge of data. We use Facebook to effortlessly organize and manage our interaction with some of the 6 billion people on this planet. In 1998, Google indexed 26 million web pages, and by July of this year their index had grown to 1 trillion (1,000,000,000,000) unique URLs. Going back to your closet—you have choices in how you organize, and those choices involve different amounts of work. If you dump your clothes in a big pile, it takes much less time than folding them and sorting them by type or color. But when you're late for class and trying to find something to wear in a hurry, you might wish you had done the folding and organizing.

These problems are magnified enormously when, instead of a few dozen items in your closet, you are trying to manage 1 trillion pieces of data. In this course, we will analyze a wide variety of clever solutions to the data organization problem and learn methods of formalizing this analysis. These data structures are the core of everything we do in computer science, from how we structure code execution itself (stacks), to how Facebook suggests “people you may know” (graphs).

This is why I think this course is interesting. It is important to me as an educator that you have an idea as to why you should be learning the material that we are covering. If you ever find yourself with any questions about this, be it during lecture or some other time, please don't hesitate to ask.

For more read this! [http://googleblog.blogspot.com/2008/07/we-knew-web-was-big.html](http://googleblog.blogspot.com/2008/07/we-knew-web-was-big.html)
Grading

Grades will be computed as follows:

- 40% Programming Assignments
- 25% Midterm Exam
- 35% Final Exam

Regardless of total percentage earned in the course, you must get a passing grade on the final exam to pass the course.

Class Participation

One goal of this course is to develop an ability to engage actively with the material and critically evaluate design decisions, their costs and benefits, and so on. As such, students are encouraged to ask questions, point out weaknesses, make observations and suggest alternatives during the lecture. (By no means should you take this to mean that only brilliant ideas are welcome during lecture! Lecture is for in-progress learning, not perfection.) Additionally, alerting the instructor when you are confused, lost, didn't hear something, or otherwise in need of additional explanation is encouraged.

There will also be frequent opportunities for structured active participation during lecture (solving problems), in which everyone is expected to participate.

Exams

There will be two examinations in this course. The exams will be closed book, but you will be provided with a "cheat sheet" as part of the exam booklet. Exactly what is on the cheat sheet will be explained prior to the exam. Because we will provide you with the details, the questions will stress conceptual understanding as opposed to memorization. The final will be comprehensive covering material from the entire course.

Grading Inquiries

Inquiries about your grade should be directed in writing (email) to the TA, no more than 7 days after the grade was posted online. All grades are fixed after 7 days.

Late Policy

Each individual in the class gets one “slip” day for the entire quarter. This means turning in an assignment up to 24 hours late with no penalty (there are no partial slip days—5 minutes late uses up the whole slip day). If a partnership turns in a late assignment, both partners have used up their slip day. (Exception: if one partner still has a slip day and the other doesn't, the assignment for the partnership may still be turned in one day late.) All other late assignments will receive a zero.

Collaboration

Quizzes and exams are to be completed individually. Programming assignments must be done strictly by the two individuals in the partnership only. Plagiarism of homework is a serious breach of academic integrity, and will affect your entire grade for the course, not just the portion allotted to homework.

Academic Integrity Policy

Do not cheat. If you are suspected of cheating, I will enforce the UCSD Policy on Integrity of Scholarship. This means that your case will be referred to the Dean of your college, who will determine your guilt or innocence, and who will determine your punishment if guilty. Punishment may be up to and including an F in the course, academic probation or suspension from UCSD. Use of any assistance not explicitly authorized by the instructor is considered cheating. Translation: you cannot assume something is ok just because I haven't said not to do it. If you have any questions about this, please ask.