San José State University

CS146, Data Structures and Algorithms, Section 1

Course and Contact Information

- CLO6. Solve recurrence relations representing the running time of an algorithm designed using a divide-and-conquer strategy
- CLO7. Understand the basic concept of NP-completeness and realize that they may not be able to efficiently solve all problems they encounter in their careers
- CLO8. Understand algorithms designed using greedy, divide-and-conquer, and dynamic programming techniques

Required Texts/Readings

Textbook

Cormen, Leiserson, Rivest and Stein, Introduction to Algorithms, 3rd Edition
ISBN-10: 0262033844
ISBN-13: 978-0262033848
MIT Press, 2009
You can find errata (bug reports) for the book http://www.cs.dartmouth.edu/~thc/clrs-bugs/bugs-3e.php

Other Readings

- Horstmann and Cornell, Core Java, Vol. I, Ninth edition, Prentice Hall, 2013.
- Kleinberg and Tardos, Algorithm Design, First edition, Addison Wesley, 2005.
- Dasgupta, Papadimitriou and Vazirani, Algorithms, McGraw-Hill, 2006.

Other technology requirements / equipment / material

Java Compiler (version 7 or later).

Course Requirements and Assignments

Success in this course is based on the expectation that sts0.2 (i) 02 (s. c q 0.24 0J1p(s) -0.2 (s) -0.2 (i) 0.2 (n t) 0.2 (hi

Final Examination or Evaluation

One final, written, and cumulative exam, split in two parts. The exams contain multiple-choice questions, short answer questions and questions that require pseudocode and/or computations.

Grading Information

No extra point options (only the final exam offers extra points option).
All exams are closed book, and final exam is comprehensive. No make-ups exams except in case of verifiable emergency circumstances.

Determination of Grades

Final Grade:
15% Programming assignments
5% Quizzes
40% Midterms (20% each)
40% Final

A+	A	A-	>90

The instructor might drop students that do not show up during the first two lectures.

CS146: Data Structures and Algorithms, Spring 2020

The schedule is subject to change with fair notice and announced on Canvas.

Course Schedule

Lesson	Date	Topic	Reading/Projects
1	1/23	Introduction: Algorithms & Computers	Ch 1 & Appendix A
2	1/28	Review Data Structures (lists, stacks, queues, trees), recursion, basic algorithms	Ch 10, Project 1