

Reading Assignments

CS 430 Introduction to Algorithms
Spring Semester, 2016

All reading assignments are from the text, *Introduction to Algorithms*, 3rd edition, by Thomas Cormen, Charles Leiserson, Ronald Rivest, and Clifford Stein, MIT Press, 2009.

You should have done the reading *before* the day in which that subject is covered. These reading assignments are very important for understanding the lectures and homework; plan to read, reread, and re-reread everything!

Lecture notes will be made available after each lecture; they are fragmentary, however, and cannot substitute for attending the lectures.

1. January 11—Review: Chapters 1–4, notes
2. January 20—Sorting: Chapters 6–9
3. February 3—Binary search trees: Chapters 12–13, omitting section 12.4
4. February 10—Augmenting data structures: Chapter 14
5. February 15—Exam 1
6. February 17—Dynamic programming: Chapter 15
7. February 24—Greedy algorithms: Chapter 16, omitting sections 16.4 and 16.5
8. February 29—Amortized analysis: Chapter 17
9. March 7—Disjoint sets: Chapter 21; section 21.4 optional
10. March 9—Exam 2
11. March 21—Heaps: Chapter 19
12. March 28—Graphs: Chapters 22–25, omitting section 25.3
13. April 11—NP-completeness: Chapter 34
14. April 25—Approximation Algorithms: Chapter 35, sections 35.1 and 35.2 only
15. April 27—Exam 3

The dates will be adjusted if the class goes more quickly or more slowly than anticipated.

Warning!

The text is *very* dense and cannot be read lightly with any significant comprehension. Plan on reading and then re-reading the material before the lecture, and then reading it again, very slowly, after the lecture.