Computer Science 477/677 Spring 2012
Analysis of Algorithms

Syllabus

Chapter numbers refer to Cormen/Leiserson, second edition.

1. Review of CS 302 Topics
   (a) Growth of Functions (Chapter 3)
   (b) Sorting algorithms (Chapters 6, 7, 8)
   (c) Elementary Data Structues (Chapter 10)
   (d) Other topics, as needed
2. Recurrences (Chapter 4)
3. Medians and Order Statistics (Chapter 9)
4. Dynamic Programming (Chapter 15)
5. Greedy Algorithms (Chapter 16)
6. Amortized Analysis (Chapter 17)
7. Advanced Data Structures (Chapters 11, 12, 14, 18, 19, 20, 21)
8. Graph Algorithms (Chapters 22, 23, 24, 25, 26)
9. NP-Completeness (Chapter 34)