

Chapter 6. Read all of it.	This chapter is a review of fundamental concepts. Questions on the final are only implicitly related to this chapter.
Chapter 8. 8.1 – 8.2 Read 8.3 Optional 8.4 Skip 8.5 Read 8.6 Skip 8.7 Skip	Important concepts such as recursion and proof by induction. This material permeates the course. The final will have questions that are implicitly related to this chapter
Chapter 18. Read all of it.	Basic ideas regarding trees. The final will have questions that are implicitly related to this chapter.
Chapter 19. 19.1 Read 19.1.2 Optional 19.2 Read 19.2.1. Optional 19.3 Read 19.4 Read 19.5 Read 19.6 Read 19.7 Optional 19.8 Read	Binary Search Trees. You should expect explicit questions on binary search trees, AVL trees, and AA-trees and B-Trees. For the case of AVL and AA-trees we will not question you on deletions from these trees, only insertions will be examined. You should be able to do single and double rotations in AVL trees, and Skew and Split operations in AA trees. Although the chapter is titled "Binary Search Trees" B-trees, a non-binary search tree is covered here as well. You can expect to be questioned on insertions into a B-tree. To avoid confusion regarding the definition of a B-tree we will use the definition used in questions for quiz #3. This definition, if needed, will be given to you on the quiz.
Chapter 20. Read all of it.	Hashing will be examined. You should know the different collision resolution schemes. You don't need to memorize the expected probe length formulae.
Chapter 21. Read all of it.	Heaps will be examined. Be sure to know the difference between a min-heap and a max-heap. You should be able to insert delete and build a heap. This chapter also has a section on external sorting. You need to study multi-way merge sorting. However, you may skip the stuff on polyphase merge sorting.
Chapter 13. 13.1.1, 13.1.2 Read 13.1.3 Optional 13.2 Skip	No need to study this chapter at all for the exam.

Chapter 11. 11.1 Skip 11.2.1 11.2.2 Read 11.2.3 Optional	A perfunctory look at games trees. A basic knowledge of game tree concepts will be quizzed.
Chapter 15. 15.1 Read 15.2.1 Read 15.2.2 Optional 15.3.1 Read 15.3.2 Optional 15.4 Skip 15.5.1 Read15.5.2 15.5,3 Optional 15.5.4 Optional	We will examine the following topics: Dijkstra's single source shortest path algorithm for graphs and/or digraphs with positive edge weights. Proof of correctness, and the use of a heap for an efficient implementation will <u>not</u> be examined. None of the other shortest path algorithms we studied will be tested. However you need to study topological ordering of a directed acyclic graph. The concepts of depth first and breadth first traversals of graphs will also be tested.