Here are some guidelines for the final exam. **Note:** The list below is not meant to be all-inclusive.

**NOTE:** Make sure that you have checked your book against the publisher’s book errata sheet and made corrections as appropriate.

1. Final-Term Exam covers textbook Chapters 1-9 (i.e., comprehensive)
2. The final exam will focus on problem solving type questions. However, there may be a few essay, multiple choice and true/false type questions.
3. Review all homework assignments. Use homework assignments as a study guide.
4. Review Quiz #1-5 (including the mid-term make-up quiz #6) and use as a study guide.
5. Review the quiz study guide.
6. Review the mid-term exam and use as a study guide.
7. Review the mid-term exam study guide.
8. Understand how MARIE and CAMERA works (including from an architecture viewpoint)
9. Know how to write a MARIE program using assembly language.
10. Know the differences between machine, assemble and high level computer programming languages.
11. Know the different types of addressing modes (chapter 5).
12. Know instruction set architectures and instruction formats.
13. Know the principles and concept of the memory hierarchy.
14. Understand the different types of cache memory, how each operates and how to compute cache memory hit ratios and effective access times.
15. Know how to apply Moore’s and Amdahl’s laws.
16. Understand the characteristics of rigid disk drives and their performance parameters.
17. Know how to computer effective access time (EAT) of memory hierarchic.
18. Understand the role of operating systems and the various programming tools.
19. Know the difference between RISC and CISC architectures and the advantages and disadvantages of each.
20. Review and answer the "review of essential terms and concepts" questions at the end of each chapter.
21. Work the exercises (that are similar to those assigned and/or discussed in class) at the end of each chapter that were not assigned as homework for extra practice.
22. Understand the examples shown though out each chapter as well as the examples covered in class.
23. Lectures and corresponding class discussion.
24. Review your student companion (lecture slides).
25. Your notes from the lectures should serve you as a good list of topics to know.
26. Check the link "tips on exam taking" on the course's useful links page as an added study aid.
27. Keep in mind that the final exam is closed book, closed notes (except for student reference sheets) and no calculators will be permitted.
28. Ensure that you have updated your textbook with all errata updates.

**NOTE:** Students are permitted to bring their own reference sheets (2 pages maximum, each page could be back-to-back format) for use on the final exam. Students can created these reference sheets using any means that are permitted by the university policies and US copyright law. **These sheets are to be submitted along with the final exam.** These reference sheets are not to include any of the following items: homework problems, mid-term exam problems/questions, quiz problems/questions, definitions, or textbook exercises.

**NOTE:** No reference sheets will be provided with the final exam.

23 April 2006