CS 470 - Operating Systems
Spring 2010 - Exam 2 Review Sheet

Reminders:

- Monday, March 29 has been set aside as a review day for Exam 2. Homework 7 is due at the beginning of class and we will go over it then. We will go over any questions you have about other homework problems as well.
- The memory management project is due Monday, April 5.
- Drafts of the case study paper are due one week before the presentation date the week so the first ones also are due Monday, April 5.

Exam 2 will be on Wednesday, March 31. You may bring one 8.5in X 11in sheet of paper with (your own, not anyone else's) notes on one side to the exam. You may print out the sheet, but it must be in a 9-point font or larger. E.g., please do not photoreduce or print 4 pages on a side. If you handwrite your notes, they may be as small as you like. You may handwrite notes in the margins of a printout.

The exam will consist of questions on the material in Chapters 7-11, and covered in lectures through Friday, March 26 and assignments through Homework 7. The exam will consist of questions similar to the homework problems.

The following is a list of topics that will be emphasized, but it is in no way to be construed as an exclusive list.

1. Deadlock, including the necessary conditions and algorithms for prevention, avoidance, detection, and recovery. You should understand these terms and how to apply them. You should be able to discuss the costs and benefits provided by each approach.
2. Real (i.e., static, complete allocation) memory management techniques. Contiguous and non-contiguous allocation strategies including paging and segmentation. Computation of effective memory access time.
3. Demand paging and virtual memory including the issues of page faults, page replacement algorithms, locality and working sets, and thrashing. Computation of effective memory access time.
4. File systems - API and implementation