

CMSI 387

OPERATING SYSTEMS

Spring 2007

Final Exam Review Sheet

The final exam will take place on May 1, at 11:00am. It will be open everything: book, notes, and handouts; open computer depends on whether or not everyone has access to a computer during class (which means that either we can have the test in the Keck lab, or everyone has a laptop that they can use). This guide should help you to prepare for the final properly.

Covered Material

The final exam covers the following areas, including all handouts and sample code that have been distributed in support of this content:

- SGG Chapters 1–12
- Working knowledge of how to configure and build a Linux kernel
- Working knowledge of C and the POSIX APIs
- Ability to express assorted operating system-related data structures and algorithms in code

Sample Tasks and Questions

In addition to the possible questions and tasks for the midterm, you may also be asked to accomplish one or more of the following:

- Manually perform some operating system algorithm; for example:
 - Banker's algorithm
 - Contiguous memory allocation for a given set of process
 - Logical to physical address translation
 - Page replacement for a given page reference string
 - Navigating or modifying a volume that uses a given file system
- Given multiple approaches to a particular operating system issue, compare their relative advantages and disadvantages, possibly making a definitive choice for a particular situation
- Navigate or interpret a hex dump for a volume using a given file system
- Answer a "big picture" operating system question — something that tests your understanding of an operating system's overall functionality