Operating Systems, Revision Topics: Second Semester

Please
(i) Read through the various Handouts, work through the tutorial sheets and look at the solutions provided (which I am gradually bring up to date).
(ii) Look through the last 3 years exam papers which are obtainable from the library - (previously called just ‘Operating Systems’ code CAS455). I have the solutions for Qs 3-6, last year only. I have them as a handout and will make a version available on my web site.

These are the topics we have covered:

1. Process definition, threads (concept), process - state model(s).
2. Interrupts, pre-emption.
3. Process scheduling, (e.g. different types of algorithms).
4. Concurrency, resource allocation (eg deadlock, starvation, bankers algorithm).
5. Synchronisation - critical sections, and semaphores/monitors.
6. Memory management: concept of, paging, segmentation, different approaches to page-tables, different strategies for page replacement.
7. Threats, security, access, trusted systems.
9. File management, file systems - Unix, NT.
10. I/O - eg different ways the operating system copes with data from a device.
11. Overview of distributed systems, parallel systems,

I shall be around most of the time over the exam period and in any case reading my email.