

SEP. 10 2002

# CS 3790 3 (3-0-2) UT - Fall 2001

## Operating Systems — Course Outline

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**Contents, Goals & Objective:** In this course the student will be introduced to concepts and features commonly found in operating systems. Class discussions will focus on traditional operating system topics (processes, memory management, file systems and input/output) as well as distributed operating systems topics (communications, synchronization, and distributed file systems). A variety of operating systems (MS-DOS, UNIX, Windows NT, OS/2, VMS, etc) will be studied as examples. This is a hands-on course with students experimenting (and modifying) with the internals of various operating systems. A good understanding of C as well as Java is required for the lab component of this course.

**Texts:**

- Applied Operating Systems, Abraham Silberschatz et al, First Edition, 2000
- Overheads and sources used in the class are available through WebCT.

**Prerequisite:** CS 1150

**Last Day to Drop:** Friday, Nov 2, 2001

**Course Grade:** The course grade is based on a student's overall performance through the entire Semester. The relative weights for the final grade is distributed among the following:

	Date	Weight
Quiz #1	9/27/2001	5% (30 minutes)
Midterm	10/23/2001	25% (1.5 hours)
Quiz #2	11/23/2001	5% (30 minutes)
Final	12/11/2001	35% (1.5 hours)
Programs and Assignments (4-6)	TBA	30%

**Examination Policy:** All examinations will be in class. Students may use their textbooks as reference material unless otherwise specified for specific tests or segments of a test.

**Make-Up Exam Policy:** Make-up examinations will be given only in case of serious need and only when the instructor is notified prior to the examination time. If this is not done, the grade is automatically 0 for that examination. It is the responsibility of the student to contact the instructor for arranging a make-up time. Written verification for the student's inability to take an exam will be required.

**Homework Policy:** All homework and assignments are due in class on the specified date. All assignments must be individually and independently completed and must represent the effort of the student turning in the assignment. Should two or more students turn in substantially the same solution or program, in the judgment of the instructor, the solution will be considered a group effort. Both or all involved in the group-effort homework will receive a zero grade for that homework/assignment. A student turning in a group effort homework/assignment more than once will automatically receive an "F" grade for the course.

**Assignment Pages:** All assignments must include

1. Cover page with assignment number, date due, date handed in, and explanation if late penalty was waived by prior arrangement
2. Listing of all files
3. Output of all test runs
4. Typed report containing discussion of your design, discussion of each result, discussion of any part of the assignment not implemented or not correct; report may refer to highlighted section of the syntax.

**Late Assignment:** An assignment is to be turned in at the beginning of class on the day it is due. An assignment turned in later than the due date will be penalized 10% of the total possible points for the assignment for each day late (excluding weekends and University holidays). No late assignment will be accepted after the assignment is graded and returned.

**Course Schedule:** The schedule of topics and their order of coverage is given below. Every effort will be made to follow this table, however, it will vary to some extent depending on the progress made. Reference column in the schedule includes names of power point files. These files will be used in the class. Other power point file names will be added to the reference list as and when they are ready and this addition will be announced in the class. Students are encouraged to download them and bring copies to the class.

## TENTATIVE SCHEDULES

DATE	DESCRIPTION	Reference
9/4/01 - 9/15/01	OS Overview, Computer-System Structure, OS Structure, Processes	Lectures 1-4
9/15/01 - 9/30/01	Threads, CPU Scheduling, Process Synchronization, Deadlocks	Lectures 5-8
9/27/01	Quiz #1	
10/2/01 - 10/14/01	Memory management, virtual memory, File Systems	Lectures 9-11
10/15/01 - 10/20/01	I/O Systems, Mass-Storage Structure	Lectures 12-13
10/23/01	Mid Term examination	
10/24/01 - 11/4/01	Network structures, distributed communication	Lectures 14-15
11/5/01 - 11/22/01	Distributed Coordination, Distributed File Systems	Lectures 16-17
11/23/01	Quiz #2	
11/24/01 - 12/10/01	Security, protection, & Window NT overview	Lectures 18-20
12/11/01	Final examination	