

CPSC/CPEN2800 INTRODUCTION TO OPERATING SYSTEMS

SEMSTER: Spring 2011
COURSE: CPSC 2800, Section 0, CRN 22971
CPEN 2800, Section 0, CRN 22966
TITLE: Introduction to Operating Systems
CREDIT: 3
ROOM: EMCS 302/312
TIME: TR 10:50 - 12:05 am
INSTRUCTOR: Li Yang, EMCS 314A
PHONE: 425-4392
OFFICE HOURS: MW 1:00 Pm - 4:00 pm or by appointment
EMAIL: Li-Yang@utc.edu

COURSE DESCRIPTION:

Introduction to operating systems. The compile, link edit, and execute processes. Interactive command languages. Cataloged procedures. Load modules and libraries. Linking object modules. Principally, a study of user and hardware interfaces to the operating systems. Prerequisites: CSPSC1110 with grade C or better.

COURSE OBJECTIVES:

- To introduce the concept of operating systems.
- To master processes, threads, and scheduling.
- To master synchronization and deadlocks.
- To master memory management and file system.
- To study different operating systems' environments.

COURSE REQUIREMENTS:

1. Regular class attendance is the main requirement of this course.
2. Active class participation, this means you must spend some quality time preparing for your next class.
3. Programming assignments, homework, and reports of hands-on labs must be turned in on time when they are due. Unfinished programs and non-working programs turned in on time will be graded; however, assignments not turned in on the due date will **NOT** be accepted. This means that you should start early to work on your programming assignments. Programs must be well-documented to be understood by a novice programmer.

4. Short quizzes may be given without prior notice and **there will be no making up of missed quizzes.**

5. Two examinations and a final examination will be given. There will be **NO** make up for missed exams.

6. You will be issued with one computer account for this class. You have a responsibility and an obligation to prevent abuse and misuse of the university computer resources. Please read the UTC Computer Use Code of Conduct.

7. Individual extra credit assignments for the purpose of propping up a bad grade will **NOT** be given.

Notes taking is encouraged. Notes for the class can be found at the bb4.utc.edu. You can also check the website of textbook for more resources.

GRADE DISTRIBUTION:

90+ = A; 80-89 = B; 70-79 = C; 60-69 = D; below 60 = F.

Linux and Simulation Labs:	15%
Homework	15%
Programming Assignment	15%
Exams (1 & 2)	30%
Final	25%
Total	100%

TENTATIVE SCHEDULE

Week	Tuesday	Thursday
Week1 Jan. 18	Introduction	Linux Lab#1: Installation and Essence
Week2 Jan. 25	OS Structures, HW#1	Linux Lab#2: Program in Java, C, and C++
Week3 Feb. 1	Processes & Thread (HW#1 due)	Linux Lab#3: File System
Week 4 Feb. 8	Processes & CPU scheduling, Programming#1	Simulation#1: Process scheduling

Week 5 Feb. 15	Processes & CPU scheduling, HW#2	Simulation #2: Producer & Consumer
Week 6 Feb. 22	Process synchronization (HW#2 due)	exam #1
Week 7 Mar. 1	Process synchronization & discussion, HW#3, Programming #1 due.	Linux Lab #4: File Processing
Week 8 Mar. 8	Deadlocks (HW#3 due), programming #2	Linux Lab #5: Advanced File Processing
Week 9 Mar. 22	Memory Management	Simulation #3: Address
Week 10 April 5	Virtual Memory, HW #4	Linux Lab#6: Shell script
Week 11 April 12	File System, (HW#4 due, programming#2 due)	exam #2
Week 12 April 19	Mass Storage Structure, HW#5	Simulation #4: Disk
Week 13 April 26	Protection & Security (HW#5 due)	Linux Lab#7: Linux Utilities
Final	TBA	Programming#3 (final replacement) due on reading day.

TEXT BOOKS:

Required: Silberschatz, A. & Galvin, Peter: Operating System Concepts with Java, 8th Edition, Addison-Wesley, 2010. ISBN: 978-0-470-50949-4.

ADA STATEMENT: Attention: If you are a student with a disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) and think that you might need special assistance or a special accommodation in this class or any other class, call the Office for Students with Disabilities at 425-4006, come by the office - 102 Frist Hall or see <http://www.utc.edu/OSD/>

If you find that personal problems, career indecision, study and time management difficulties, etc. are adversely affecting your successful progress at UTC, please contact the Counseling and Career Planning Center at 425-4438 or <http://www.utc.edu/Administration/CounselingAndCareerPlanning/>.

IMPORATANT DATES

January 18 (Tuesday) - classes begin

January 28 (Friday) - last day to change from credit to audit or audit to credit (contact the Records Office)

January 30 (Sunday) - last day to register, add, or change sections

January 30 (Sunday) - last day to drop before a W is recorded

February 28 - March 4 (Monday - Friday) - faculty notify students of mid-term grades

March 13 (Sunday) - **Last day for official withdrawal from any class with a W**

March 14 - 20 (Monday Sunday) - spring break - No Classes

April 22 (Friday) - spring holiday

TBA Last day of classes for spring semester

TBA Reading Day