CSE 460: Operating Systems

Spring 2013, Zemoudeh
School of Computer Science and Engineering
California State University, San Bernardino

Lecture Time and Place:	MW 12:00-1:15 in JB-146
Lab Time and Place:	M 10:00-11:50 in JB-359
Instructor:	Kay Zemoudeh, kay@csusb.edu
Office:	JB 347
Office Hours:	MW 4:00-6:00
Text:	Silberschatz, Galvin, Gagne, "Operating System Concepts", 9th Ed. (paper back) Wiley, 2009
Final:	Wednesday, June 12, 12:00-1:50
Website:	cse.csusb.edu/kay/cs460

Grading:	Final	30%	
	Midterm	20%	
	Assignments	30%	
	Lab	20%	
Letter Grade Assignment:		93-100% A	90-92% A –
	86-89% B+	83-85% B	80-82% B –
	76-79% C+	73-75% C	70-72% C –
	66-69% D+	63-65% D	60-62% D –
	0-59% F		

Tentative Syllabus:

Ch. 1: Introduction	Week 1
Ch. 2: OS Structure	Week 2
Ch. 3: Processes	Week 3
Ch. 4: Threads	Week 4
Ch. 5: CPU Scheduling	Week 5
Ch. 6: Process Synchronization	Week 6
Ch. 7: Deadlocks	Week 7
Ch. 8: Main Memory	Week 8
Ch. 9: Virtual Memory	Week 9
Ch. 13, 14 & 15: IO Systems and Security	Week 10

Course Description and Objectives:
CSE 460 covers basic OS design and implementation concepts through the coverage of selected topics in the text, as outlined above, and the design and implementation of a simple OS, as the on-going project in the lab. In both lecture and lab, we will cover process scheduling, process synchronization, and memory management in detail in addition to other topics, such as multi-threading, deadlocks, system security, etc.

The project consists of three phases: CPU/Assembler, Process Management, and Memory Management. The project could be a group effort where each group consists of two members.

The objective of the course is to gain an overall understanding of the internals, organization, and workings of operating systems. Once a student gains a fundamental understanding of Operating Systems, he/she could
a. design and develop better programs
b. dissect and understand (open-source) operating systems
c. develop new operating systems
d. efficiently and effectively use an operating systems

Policies:
Final and Midterm exams are open book, open notes. The exams will consist of 4-6 problem solving questions similar to the homework questions but at a level to allow for the limited time in the exam. The Final is comprehensive. Everybody must take the Final.

Home works will consist of programming assignments, algorithm design, and other problem solving exercises. Exams and home works must be individual effort. If it is demonstrated that two or more students have collaborated on an assignment, the assignment grade will be divided among them. If you find the solution of a problem on the Internet or other publicly available sources, be prepared to share your grade with the other students who have copied the same answer! Lab work may be completed by a group of two students. Any type of cheating or misconduct will result in an F in the course and possibly expulsion from the University.

Students with Disabilities:
If you are in need of an accommodation for a disability in order to participate in this class, please let me know and also contact Services to Students with Disabilities at UH-183, (909)537-5238.