CSE 430 Operating Systems, #71700, Fall 2010

LECTURE:  Tu-Th 3:00pm—4:15pm
LOCATION:  COWDN 215

INSTRUCTOR:  Georgios Varsamopoulos
OFFICE AND HOURS:  BYENG 448

TEACHING ASSISTANT:  Wei Wu
OFFICE AND HOURS:  BYENG 531AB

COURSE WEB PAGE:  http://impact.asu.edu/cse430fa10.html ASU Blackboard will be used.

CATALOG DESCRIPTION:  Operating system structure and services, processor scheduling, concurrent processes, synchronization techniques, memory management, virtual memory, input/output, storage management, and file systems.

PREREQUISITES:  CSE 330 (or EEE 230 or CSE 230), CSE 310.


MAJOR TOPICS:  - Introduction to Operating Systems
               - Operating System anatomy and data structures
               - Processes and Threads
               - CPU scheduling
               - Process synchronization and concurrency
               - Memory management
               - Filesystems
               - Distributed computing concepts

COURSE OBJECTIVES:  Students will learn the conceptual internals of OSs, the responsibilities of an OS and how they are achieved (designed), as well as implementation examples from the Linux and Windows operating systems.

HOME ASSIGNMENTS:  The homework assignments will consist of assignments on analyzing operating system functionality, and programming assignments on process management using OS system calls. There will be a total of about eight (8) homework assignments.

PROJECTS:  There will be a group project with both research and programming content.

QUizzes and EXAMS:  There will be unscheduled quizzes on a roughly biweekly basis, two mid-term exams (beginning of October and November, respectively), and a final exam. The final exam's grade will be compared with the project's grade, the highest will used.

WEIGHT DISTRIBUTION:  - Assignments 20%
                        - Quizzes 10%
                        - Project, exam 25% (highest)
                        - Midterms 20% each
                        - In-class participation 5%

GRADE SCALE:  A: 90% – 100%; B: 80% – 89%; C: 70% – 79%; D: 60% – 69%; E,F: <60%