

CS440 Operating Systems Course Syllabus, Spring 2008

Instructor: Zizhong John Wang, Ph.D.
Office: Blocker 205
Telephone: (757) 455-5710
Email: zwang@vwc.edu
Home page: <http://facultystaff.vwc.edu/~zwang>

Classroom: Clarke 214
Meeting time: M 6:00pm - 9:00pm
Office hours: MW 11:45am-12:30pm, 4:15pm - 4:45pm, and by appointment

Catalog description: The principles of operating systems are introduced with an emphasis on intrasystem communication. The concepts and techniques necessary for understanding and designing these systems are examined. Topics include I/O and interrupt structure, concurrent processes, process scheduling, and memory management and protection. Prerequisite: CS 212 or consent. CS 310 is recommended. Offered on demand.

Textbook: Operating Systems, 3th Edition, by Gary Nutt, Addison - Wesley, 2003. ISBN 0-201-77344-9.

Course goals:

1. To learn basic OS principles including device management, process and resource management, memory management, etc.
2. To understand the abstract concepts in OS
3. To be familiar with the UNIX environment

Evaluation:

1. There will be about 5-10 assignments. You may need two large envelopes or folders, and floppy disks or flash drives/CDs for the assignments.
2. There will be two tests (100 points each) and a final comprehensive exam (200 points). There may be mini-tests and quizzes if needed. NO MAKE-UP tests will be given. Please do NOT try to take it early or late also, especially the final exam.

Grading strategies:

1. Assignments, quizzes, and participations have a weight of 35%.
2. Tests have a weight of 35%.
3. The final exam has a weight of 30%.

The final score will be calculated as a percentage of points earned versus total points possible, with the final letter grade being assigned according to the scale as follows:

A (93 or above)		A- (90 – 92)
B+ (87 – 89)	B(83 – 86)	B- (80 – 82)
C+ (77 – 79)	C (73 – 76)	C- (70 – 72)
D+ (67 – 69)	D (63 – 66)	D- (60 – 62)
F (59 or less)		

Attendance policy: Attendance is *required*. Absence will be excused only at the discretion of the instructor. A maximum of four absences will be excused. Excessive absence will reduce your grade one letter for each absence in excess of four.

Accommodations for students with special needs: In order to arrange accommodations for a disability, the student must register with the college's disability services coordinator, Fayne Pearson (x3246 or fpearson@vwc.edu). Based on an evaluation of the student's documentation and discussion with the coordinator, reasonable accommodations will be determined. The instructor will be notified at the designation of the student.

Course Outline

Week	Date	Contents
1	01/28	Introduction and Linux basics
2	02/04	OS Development
3	02/11	Computer architectures
4	02/18	OS organization
5	02/25	Device management
6	03/03	I/O management. <i>Test I</i>
7	03/10	Processes and resources
8 (03/17 - 03/21)		Spring Break)
9	-	
10	03/31	OS Scheduler
11	04/07	Critical sections and semaphores
12	04/14	Deadlock
13	04/21	Banker's algorithm. <i>Test II</i>
14	04/28	Memory management
15	05/05	File management and security

Test I: Monday, March 3

Test II: Monday, April 21

Final Exam: Monday, May 12, 6:30pm - 9:00pm