

CSI 400/500 Spring 2009
Prof Robert Ekblaw

Course Syllabus

Lecture: Mondays and Wednesdays, 7:15-8:35PM, Humanities Rm 20
Lab: Tuesdays or Thursdays, 7:15-8:10PM, CS Computer Lab, LI 99

Office: Library 95J
Hours: Mondays and Wednesdays 9-10PM (after class)
 Fridays 3PM – 6PM
 Other times by appointment

Email: raekblaw@cs.ualbany.edu

TA: John Sasso
Office: LI 99
Hours: Tues and Thurs 6-9PM (includes lab time)

Texts: Operating Systems (3rd Edition) by Gary Nutt (Text 1)
Essential Linux Device Drivers by Sreekrishnan Venkateswaran (Text 2)

Course Schedule:

Date	Topic	Text
01-21	Course Introduction, Parts of an Operating System	Text 1: 3.1, 3.2
01-26	Functions of an Operating System	Text 1: 4.1 – 4.5
01-28	Processes	Text 1: 2.1-2.3, 6.1-6.4
02-02	Using Processes, Threads, and Kernels; Kernels in Linux	Text 1: 3.3, 6.5, 6.7; Text 2: p. 1-15
02-04	Using Linux Kernels	Text 2: p. 17-38, p. 56-61
02-09	Process Scheduling	Text 1: 6.8, 7.1 – 7.4
02-11	Scheduling in Kernels and Linux	Text 1: 7.5, 7.6; Text 2: p. 61-62, 553-557
02-23	Memory Management	Text 1: 11.1 – 11.3; Text 2: p.49-52
02-25	Memory Strategies using Dynamic Memory	Text 1: 11.4, 11.5; Text 2: p.65-74
03-02	Virtual Memory	Text 1: 12.1-12.6
03-04	File Manger	Text 1: 13.1 – 13.4
03-09	MIDTERM	
03-11	File Systems, Directories, Maps, and Flash Memory	Text 1: 13.5 - 13.7, 12.7; Text 2: p.504-516
03-16	I/O Managers and Drivers	Text 1: 5.1, 5.2; Text 2 p. 207-229
03-18	Interrupt Handling in Linux Kernels	Text 2: p. 92-102
03-23	Device Drivers	Text 1: 5.3-5.5; Text 2: p. 103-114
03-25	Linux Device Drivers	Text 2: p. 595-620, 634-639
03-30	Concurrency and Synchronization	Text 1: 2.4, Chpt 8; Text 2: p. 39-49
04-01	Monitors	Text 1: Chapter 9
04-06	Teamwork; Introduction to Deadlock	Text 1: 10.1, 10.2
04-15	Deadlock Detection and Prevention	Text 1: 10.3 – 10.5
04-20	Networks and Protocols	Text 1: 15.3 – 15.7
04-22	Remote files	Text 1: Chapter 16
04-27	Viruses and Intrusion	
04-29	Computer Security measures	Text 1: Chpt 14, 15.7
05-04	Review for Final	

Homework

There will be five assignments requiring individual effort and one group project. The group project will have three different deadlines, each deadline requiring some form of output to be turned in. Not all assignments will be programming assignments. Different assignments will require different items to turn in. Each assignment will list and briefly describe the items to turn in.

Exams

There will be a Midterm and Final exam. The Final Exam will be comprehensive, although more emphasis will be placed on the topics in the second half of the course. Both exams are closed book.

Grading Criteria

This is a merit course. That means you receive the grade you earned. There is no grading “on a curve”. That means it is possible for everyone to achieve an A, or nobody. Grading of assignments is based upon completeness (turning in everything requested), comprehensiveness (demonstrating a working knowledge of the subject matter covered by the assignment), and timeliness. You will lose five points for each day an assignment is late. Assignments are due by 11PM on the date specified for that assignment. Receiving an assignment at 11:01 PM constitutes a day late.

Extra Credit

Extra credit is arranged ONLY with prior discussion with the professor. If you choose to do extra effort on an assignment, that effort will not be graded unless previously approved by the professor. Extra credit is not an expected part of this course – extra credit will only be offered under extreme or unusual circumstances.

Originality

You are expected to do your own work in this course. I have an extensive library of previous assignments. I also check freelance consulting sites for students paying for their homework to be done. If any student turns in a copy of someone else’s work, from either this semester or a previous one, that student will receive a 0 for that assignment. **THERE ARE NO EXCEPTIONS TO THIS POLICY!!!**

Final Grade

Your final grade will be determined by weighing the following graded material:

Homework	20%	Group Project	30%
Midterm	20%	Final Exam	30%

Letter Grades

Grades for each assignment, test, and final grade will be determined using the following matrix: (N/A means that grade is not available. There is only one failing grade - F)

	A	B	C	D	F
+	97-100	83-86	69-72	55-58	N/A
	92-96	78-82	63-68	50-54	0-44
-	87-91	73-77	58-62	45-49	N/A