

Texas A&M University

Computer Science 410/611, Fall 2006

Operating Systems Concepts

Course: Operating Systems Concepts

Lectures: Tuesday & Thursday from 11:10am-12:25pm

Location: 104 Jack E. Brown Chemical Engineering Bldg (CHEN)

Homepage: <http://faculty.cs.tamu.edu/pike/teaching/410/2006C>

Description: Hardware/software evolution leading to contemporary operating systems; basic operating systems concepts; methods of operating systems design and construction; algorithms for CPU scheduling, memory and general resource allocation; process coordination and management; case studies of several operating systems.

Prerequisite: Computer Architecture (CPSC 321 or equivalent)

Textbook: *Operating Systems Concepts, 7th Edition*, by Silberschatz, Galvin, and Gagne, 2005. The textbook should be available at the **bookstore** in the **Memorial Student Center (MSC)**.

Instructor: [Scott M. Pike](#)

Email: [pike \[at\] cs.tamu.edu](mailto:pike[at]cs.tamu.edu)

Office: 325 H.R. Bright Bldg

Phone: 979.845.2369

Office Hours:

- Monday, 10:00-11:00am in H.R. Bright 325
- Tuesday, 12:30-1:30pm in CHEN 2nd floor lounge
- Also by appointment

Riccardo Bettati will be directing all programming aspects of the course.

Email: [bettati \[at\] cs.tamu.edu](mailto:bettati[at]cs.tamu.edu)

Office: 509C H.R. Bright Bldg

Phone: 979.845.5469

Office Hours:

- Tues/Thurs, 3:40-4:40pm in 509C
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Tentative Schedule

Wk	CIs	Date	Day	Topic	Read	Homework	Machine Problem
1	1	29-Aug	Tues	Intro and Perspectives			
	2	31-Aug	Thur	The Experience Economy			
2	3	5-Sep	Tues	Machine Problems			Handout MPO
	4	7-Sep	Thur	OS Overview	Ch 1		
3	5	12-Sep	Tues	OS Structures	Ch 2	Handout HW1	MPO due; Handout MP1
	6	14-Sep	Thur	Processes	Ch 3		
4	7	19-Sep	Tues	Threads	Ch 4	HW1 due Wed	
	8	21-Sep	Thur	CPU Scheduling	Ch 5		
5	9	26-Sep	Tues	Process Synchronization	Ch 6	Handout HW2	
	10	28-Sep	Thur	Process Synchronization	Ch 6		
6	11	3-Oct	Tues	Deadlocks	Ch 7	HW2 due Wed	MP1 due; Handout MP2
	12	5-Oct	Thur	Review for Midterm 1			
7	13	10-Oct	Tues	Midterm 1			
	14	12-Oct	Thur	Memory Management	Ch 8		
8	15	17-Oct	Tues	Virtual Memory	Ch 9	Handout HW3	
	16	19-Oct	Thur	File-System Interface	Ch10		
9	17	24-Oct	Tues	File-System Impl	Ch11	HW3 due Wed	MP2 due;
	18	26-Oct	Thur	Disk Management	Ch12		
10	19	31-Oct	Tues	I/O Systems	Ch13	Handout HW4	Handout MP3
	20	2-Nov	Thur	Security	Ch15		
11	21	7-Nov	Tues	Review for Midterm 2		HW4 due Mon	
	22	9-Nov	Thur	Midterm 2			
12	23	14-Nov	Tues	Distributed Structures	Ch16		
	24	16-Nov	Thur	Distributed File Systems	Ch17		
13	25	21-Nov	Tues	Distributed Coordination	Ch18		
	--	23-Nov	Thur	<i>Thanksgiving (no class)</i>			
14	26	28-Nov	Tues	Advanced Topics		Handout HW5	MP3 due
	27	30-Nov	Thur	Case Studies			
15	28	5-Dec	Tues	Course Review		HW5 due Mon	
--	--	8-Dec	Fri	Final Exam (Cumulative)			

Grading

- 25% Homeworks: 5 homeworks at 5% each
- 35% Machine Problems: MP0 = 5%, MP1 = MP2 = MP3 = 10% each
- 35% Test: Midterms = 10% each, Final Exam = 15%
- 5% Attendance and Minute-Quizzes

Course Policies

- **Cell Phones:** Any calls received during lecture will result in an automatic 5% penalty off your final course grade. Excuses will result in double the penalty. These points can be re-gained only by a written compensatory assignment of the instructor's choosing, and only if it is your first offense.
- **Attendance:** We will have approximately 30 class meetings. You are permitted to miss 3 of them without penalty. Each additional unexcused absence will result in a penalty of 3% per class missed off your final course grade.

Academic Integrity Statement

"An Aggie does not lie, cheat, or steal or tolerate those who do."

University Regulations, Section 42, define scholastic dishonesty to include acquiring answers from any unauthorized source, working with another person when not specifically permitted, observing the work of other students during any exam, providing answers when not specifically authorized to do so, informing any person of the contents of an exam prior to the exam, and *failing to credit sources used*. Disciplinary actions range from grade penalty to expulsion.

This course has a zero-tolerance policy. Academic misconduct on any assignment will result in failing the entire course! All such cases will be referred to the Aggie Honor Council for additional disciplinary action by the University. Finally, misconduct will also result in an "Unsatisfactory" rating on the annual departmental review of Ph.D. students. Please refer to <http://www.tamu.edu/aggiehonor/acadmisconduct.htm> for more information about the scope and meaning of academic misconduct.

Americans with Disabilities Act (ADA) Policy Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, the legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Cain Hall or call 845-1637.