

Operating Systems Principles

Fall 2008

CS 480-2/580-2

TTh 6:30–7:45 PM

PM 251

Instructor: Dr. Reva Freedman
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Phone: (815) 753–6944 (during office hours only)
Office hours: TTh 4:45–6:15 PM, or by appointment
Course web site: <http://www.cs.niu.edu/~freedman/courses/cs480/>

Textbook: Silberschatz, Galvin and Gagne, *Operating System Concepts*, 2009 (8th edition).

Contacting the instructor: The best way to contact me is in person, followed by email. I rarely pull the messages from my phone voice mailbox. I will be happy to talk to you about questions or concerns at any time. I encourage you to address small problems before they become big problems, not the day before the exam or the day before the program is due.

I try to respond to email by the next business day, but there are occasional exceptions. Questions that can be answered from reference material may not be answered. Questions requiring major debugging are best handled in person.

Late-breaking news, e.g., errors in assignments, will be sent to your official university email address. It is your responsibility to ensure that you have space in your inbox and to check it regularly.

Class attendance: You are responsible for all material covered in class. If you miss a class, you must get notes from another student before the next class, *not from the instructor*. Research has shown that students who attend class regularly do better regardless of other behaviors. Class participation is encouraged and will make the class more interesting for you and for the other students. If you have a question, there are probably three other people with the same question who are even more shy than you.

Class decorum: In classes for freshmen, I state the following rule on the syllabus: “No activity that interferes with learning is permitted in class. For example, eating, cell phone use, newspaper reading, and regularly being late or leaving early are not permitted.” In a class for seniors and graduate students, I assume it is not necessary to state such a rule explicitly.

Exams and quizzes: There will be three exams. Exams will be closed-book, closed-notes. The third exam will be given during the final exam slot. Quiz dates will be announced in class. There are no makeup quizzes.

You are expected to take the exams at the assigned time and date. Missing an exam is an extremely serious matter: makeup exams will only be given if *all* of the following requirements are satisfied: (a) an unavoidable reason (e.g. car accident), (b) advance notification, (c) written documentation, (d) permission of instructor, (e) for final exam, permission of department.

If you have another final exam at the same time, please let me know ASAP. Also please notify me ASAP if you meet the university’s criterion for rescheduling a final exam, namely that you have three finals on the same day and this course is the highest-numbered of the three. The university deadline for scheduling a makeup final is Monday of the last week of classes,

i.e. Mon., Dec. 1. Documentation is required to schedule a makeup final.

Homework: Homework will be assigned. It is up to you to verify that your answers are correct. Homework will not be graded, but the exam questions will be based on the homework.

Programs: Programs must be turned in at the *beginning* of the class period to be considered on time. *Late programs will lose 1 point per hour.* If your program will be more than a few hours late, please contact the instructor. If you cannot attend class, programs may be left in the instructor's mailbox or under my door provided they are received *before* class time.

Programs must run on turing.cs.niu.edu. The programming language for this course is C. Before the first assignment, we will spend a short time discussing differences between C and C++.

Programs must follow the printing, coding and documentation standards given out in class. In general, you will be expected to turn in a printed listing of the program and its output, a matching machine-readable version and possibly a writeup with answers to questions provided. To receive full credit, programs must (a) work, (b) follow the specifications, (c) be comprehensible to humans, (d) be accompanied by the requested writeup. Print programs using non-proportional type (e.g., Courier) in at least 10 point size. You may use proportional type for answers to questions, but make sure the type size is at least as large as this handout (i.e., 12 point). *This means that you may not print 2-up.* Programs should be turned in on 8 1/2 x 11 paper and must be stapled together. The upper right corner of the first page should contain (a) your name, (b) CS480, (c) the assignment number, (d) the date.

You are responsible for keeping a backup copy of your programs.

Academic honesty: You are expected to do your own work on the homework, programs and exams. Cheating includes, but is not limited to, copying work from other students, copying work from other textbooks, copying work from the Internet, or helping others to do the same.

All cheating will result in the filing of an academic misconduct form and will affect your course grade, with the possibility of failing the course. Note that a second academic misconduct offense may result in your expulsion from the university.

We may use mechanized source comparison on the programs.

Grading: The course grade will be based on a 1000-point total:

<u>Points</u>	<u>Grade</u>
900	A
800	B
700	C
600	D
below 600	F

Grades will be based on a 60/40 split, as follows:

Quizzes:	4 quizzes @ 25 points each	= 100
Programs:	3 programs @ 100 points each	= 300
<u>Exams:</u>	Three exams @ 200 points each	= <u>600</u>
<u>TOTAL</u>		<u>1000</u>

SCHEDULE

Date		Topic	Reading	
wk 1	T	Aug. 26	Introduction	Chapter 1
wk 1	Th	28		
wk 2	T	Sept. 2	OS Architecture	Chapter 2
wk 2	Th	4		
wk 3	T	9	Processes	Chapter 3
wk 3	Th	11		
wk 4	T	16	Threads	Chapter 4
wk 4	Th	18		
wk 5	T	23	CPU Scheduling	Chapter 5
wk 5	Th	25		
wk 6	T	30	EXAM	
wk 6	Th	Oct. 2	Process Synchronization	Chapter 6
wk 7	T	7		
wk 7	Th	9	Deadlock Handling	Chapter 7
wk 8	T	14		
wk 8	Th	16		
wk 9	T	21	Real Memory Mgmt	Chapter 8
wk 9	Th	23		
wk 10	T	28	Virtual Memory Mgmt	Chapter 9
wk 10	Th	30		
wk 11	T	Nov. 4		
wk 11	Th	6	EXAM	
wk 12	T	11	File Systems	Chapter 10-11
wk 12	Th	13		
wk 13	T	18		
wk 13	Th	20	I/O Systems	Chapter (12-)13
wk 14	T	25		
wk 14	Th	27	Thanksgiving Break – No Class	
wk 15	T	Dec. 2	Protection & Security	Chapter (14-)15
wk 15	Th	4		

Final Exam: Tuesday, Dec. 9, 6:00-7:50 p.m.