

CS 4348 Operating Systems Concepts

Fall 24 Course Syllabus

Course Description

This course covers concepts and topics related to the design of operating systems including processes and threads. Concurrency issues including semaphores, monitors and deadlocks. Simple memory management. Virtual memory management. CPU scheduling algorithms. I/O management. File management. Introduction to distributed systems.

Course Information

Course Title: Operating Systems Concepts
Course Number: CS/SE 4348.002
Term: Fall 24
Meeting At: Tuesday & Thursday 4:00pm - 5:15pm ECSW 1.365
Credit Hours: 3

Instructor's Contact Information

Name: Dr. Michael Christiansen
Email: michael.christiansen@utdallas.edu
NetID: mgc013000
Office: ECSS 4.201
Office Hours: Tuesday and Thursday 3:30-4:30PM in ECSS 4.201
and any time I am available via MS Teams.

Teaching Assistants Contact Information

Name:
Email:
Office Hours:
Office:

Academic Calendar

- Classes Start: 8/19
- Last Day of Classes: 12/5
- Midterm Exam: Oct 3-5 in the UTD Testing Center. The midterm duration is 90 minutes. A study guide will be provided.
- Final Exam: Dec 9-11 in the UTD Testing Center. The final duration is 120 minutes. A study guide will be provided.

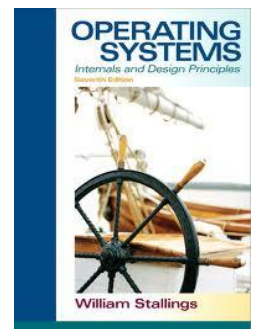
See the official UTD calendar for university holidays and closings [here](#).

Notice: The testing center requires that students reserve a seat on the exam dates through the UTD Testing Center site [here](#). There will be no opportunity to take exams outside of the assigned dates. Reserve seats for both the Midterm and Final Exams ASAP.

Textbook

Operating Systems, Internals and Design Principles.
Seventh Edition by William Stallings.
ISBN 0-13-230998-X, 978-0-13-230998-1

Other materials as provided in the “Supplemental Materials” folder of the eLearning site.



Course Prerequisites

1. CS 2340 Computer Architecture
2. CS 3345 Data Structures and Introduction to Algorithmic Analysis
3. Knowledge of Unix and the C Programming Language.

Course Learning Objectives

1. An understanding of processes.
2. An understanding of threads.
3. An ability to develop concurrent programs.
4. An understanding of simple memory management.
5. An understanding of virtual memory.
6. An understanding of scheduling algorithms.
7. An understanding of I/O management.
8. An understanding of file management.
9. An understanding of OS virtualization.

Grading Policy

Final grades are determined from a combination of the following percentages:

Programming Projects	20 %
Homework Assignments	10 %
Class Attendance	5%
Midterm Exam	30 %
Final Exam	35 %

- No bonus work, make-up work, dropped scores, or other means of raising your grade will be provided.

Undergraduate Grade Ranges and GPA Points

	Score	Letter Grade	GPA
A+	$X \geq 97$	A+ ⁽¹⁾	4.00
A Excellent	$93 \geq X < 97$	A	4.00
A-	$90 \geq X < 93$	A-	3.67
B+	$87 \geq X < 90$	B+	3.33
B Good	$83 \geq X < 87$	B	3.00
B-	$80 \geq X < 83$	B-	2.67
C+	$77 \geq X < 80$	C+	2.33
C Fair	$73 \geq X < 77$	C	2.00
C-	$70 \geq X < 73$	C-	1.67
D+	$67 \geq X < 70$	D+	1.33
D Poor	$63 \geq X < 67$	D	1.00
D-	$60 \geq X < 63$	D-	0.67
F Failure	< 60	F	0.00

Attendance Policy

University and department policy is students attend live, face to face lectures and to record attendance when possible. This is accomplished by circulating an attendance sheet for each class meeting. It is the responsibility of each student to ensure that their attendance is recorded during the lecture only.

Cheating the process (e.g. having a friend sign-in for you) will be reported to the university.

It is understood that some lectures may be missed for valid reasons e.g. sickness. But the course policy stands, attendance is only counted for signed roll sheets. To offset this inequity, each student receives an additional point to their final course grade. This extra point will more than offset the penalty of missing a few days throughout the semester.

Classroom Policy

Students are encouraged to attend live lectures in accordance with university policy.

Students will be required to interact with their assigned project teams regardless of their schedule, locality, or status as an asynchronous student.