

**UNIVERSITY OF TEXAS AT DALLAS  
COURSE SYLLABUS**

**COURSE INFORMATION:**

**Course Number:** CS 4348, Section 004  
**Course Title:** Operating Systems Concepts  
**Credit Hours:** 3  
**Term:** Spring 2024  
**Meeting Time:** Tuesday/Thursday 11:30 am - 12:45 pm

**PROFESSOR CONTACT INFORMATION:**

**Name:** Greg Ozbirn  
**Phone Number:** 972-883-4725  
**Office Location:** ECSS 3.608  
**Office Hours:** Monday/Wednesday 2:30-3:30 pm, in person or in Teams  
**Email Address:** [ozbirn@utdallas.edu](mailto:ozbirn@utdallas.edu)

**COURSE PRE-REQUISITES, CO-REQUISITES, AND/OR OTHER RESTRICTIONS:**

**Prerequisites:** (CS 2340 or SE 2340 or equivalent) and  
(CS 3377 or SE 3377) and  
(CE 3345 or CS 3345 or SE 3345)

**COURSE DESCRIPTION:**

An introduction to fundamental concepts in operating systems: their design, implementation, and usage. Topics include process management, main memory management, virtual memory, I/O and device drivers, file systems, secondary storage management, and an introduction to critical sections and deadlocks.

## STUDENT LEARNING OBJECTIVES/OUTCOMES

Ability to understand processes  
Ability to understand threads  
Ability to understand and develop concurrent programs  
Ability to understand simple memory management  
Ability to understand virtual memory  
Ability to understand scheduling algorithms  
Ability to understand of I/O management  
Ability to understand of file management  
Ability to understand OS virtualization

## REQUIRED TEXTBOOKS AND MATERIALS:

Operating Systems, Internals and Design Principles, Ninth Edition, by William Stallings, ISBN-13: 978-0-13-467095-9. © 2018 by Prentice-Hall, Inc.

## SUGGESTED COURSE MATERIALS

Extra material may be posted on eLearning.

## ASSIGNMENTS & ACADEMIC CALENDAR

Class	Date (30 classes)	Material Covered	Topic
1,2	Jan 16, 18	Introduction	Hardware Overview OS Overview
3,4	Jan 23, 25	Chapter 1, Chapter 2	
5,6	Jan 30, Feb 1	Chapter 2, Project 1	
7,8	Feb 6, 8	Chapter 3	Processes
9,10	Feb 13, 15	Chapter 4, Review	Threads
11,12	Feb 20, 22	<b>Exam 1</b> (ch.1-4), Chapter 5	Concurrency,
13,14	Feb 27, 29	Chapter 5, Project 2	Synchronization
15,16	Mar 5, 7	Chapter 6, Chapter 7	Deadlocks, Memory Mgmt
	Mar 12, 14	Spring Break	
17,18	Mar 19, 21	Chapter 8	Virtual Memory
19,20	Mar 26, 28	Chapter 8, Review	
21,22	Apr 2, 4	<b>Exam 2</b> (ch. 5-8), Project 3	Scheduling I/O, File Systems Virtualization
23,24	Apr 9, 11	Chapter 9, Chapter 10	
25,26	Apr 16, 18	Chapter 11, Chapter 12	
27,28	Apr 23, 25	Chapter 14	
29,30	Apr 30, May 2	Review, <b>Exam 3</b> (ch. 9-12,14)	

## **GRADING POLICY:**

The grade will be determined as described below. The lowest assignment score (assignments only, not projects or exams) is dropped. No other bonus work, make-up work, dropped scores, or other means of raising your grade should be expected. At the end of the semester, it is possible that grades may be curved, but a curve should not be expected.

Exam 1	20%
Exam 2	20%
Exam 3	20%
Project Average	30%
Assignment Average	10%

Letter grades are determined using the standard 10-point range for each letter, then dividing this range into three equal parts to determine the +/- designation.

## **COURSE & INSTRUCTOR POLICIES:**

Assignments and projects must be turned in on time. Due dates will be followed by a 24-hour grace period. After the 24-hour period ends, the score is recorded as a zero. It is your responsibility to upload your work early enough to avoid possible problems uploading to eLearning. It is your responsibility to ensure that you have submitted the correct items. It is recommended that you double-check your submission to ensure it is correct.

Exams must be taken on time. Exceptions require advance approval by the instructor. It is up to the instructor to determine whether an exception will be made, and will depend largely on proof of extraordinary circumstances. Otherwise, a missed exam will either incur a substantial penalty or be recorded as a zero.

Exams have time limits. Students who continue to write on the exam after time is called or who start writing before the exam begins are subject to a penalty.

Students are expected to attend all class lectures. If absent, the student is still responsible for any material covered or anything said which the student missed.

All assignments, projects and exams are to be individual efforts. You are not to collaborate with other students, give your work to other students, or discuss solutions with other students prior to submission. Copying of assignments, projects and exams, in whole or in part, from other students in this semester or previous semesters will be considered to be an act of scholastic dishonesty.

Grades are not based on needs or consequences, but are based only on performance.

## **CLASS MATERIALS:**

The instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

## **CLASS ATTENDANCE:**

The University's attendance policy requirement is that individual faculty set their course attendance requirements. Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

## **CLASS PARTICIPATION:**

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

## **CLASS RECORDINGS:**

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

The instructor may record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law.

**CLASSROOM CITIZENSHIP:**

All students are expected to conduct themselves appropriately in the course, including in the live lectures as well as in communication with the instructor and grader(s).

**OFF-CAMPUS INSTRUCTION AND COURSE ACTIVITIES:**

N / A

**COMET CREED:**

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:  
“As a Comet, I pledge honesty, integrity, and service in all that I do.”

**ACADEMIC SUPPORT RESOURCES:**

The information contained in the following link lists the University’s academic support resources for all students.  
Please see <http://go.utdallas.edu/academic-support-resources>.

**UT DALLAS SYLLABUS POLICIES AND PROCEDURES:**

The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus. Please review the catalog sections regarding the [credit/no credit](#) or [pass/fail](#) grading option and withdrawal from class.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

*The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.*