

## **Course Syllabus**

### **Course Information**

<i>Course Number/Section</i>	CS 4348/501 (MW 5:00pm - 6:45pm)
<i>Course Title</i>	Operating Systems Concepts
<i>Term</i>	Spring 22

### **Professor Contact Information**

<i>Professor</i>	Mr. Greg Ozbirn
<i>Office Phone</i>	972-883-4725
<i>Other Phone</i>	N/A
<i>Email Address</i>	ozbirn@utdallas.edu
<i>Office Location</i>	ECSS 3.608
<i>Online Office Hours</i>	2:30 pm – 3:30 pm, Monday, Wednesday
<i>Other Information</i>	MS Teams for office hours

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### **COVID-19 Guidelines and Resources**

The information contained in the following link lists the University's COVID-19 resources for students and instructors of record.

Please see <https://utdallas.edu/covid>.

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### **Course Pre-requisites, Co-requisites, and/or Other Restrictions**

Prerequisites: CS 2340 or SE 2340 or equivalent  
CS 3377 or SE 3377  
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***Required Texts*

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

*Required Materials*

N/A

**Suggested Course Materials**

N/A

Textbooks and some other bookstore materials can be ordered online or purchased at the [UT Dallas Bookstore](#).

**Academic Calendar**

Class	Date	Material Covered	Topic
1	Jan 19	Introduction	
2,3	Jan 24, 26	Chapter 1, Chapter 2	Hardware Overview
4,5	Jan 31, Feb 2	Chapter 2, Project 1	OS Overview
6,7	Feb 7, 9	Chapter 3	Processes
8,9	Feb 14, 16	Chapter 4	Threads, Concurrency,
10,11	Feb 21, 23	Chapter 5	Synchronization
12,13	Feb 28, Mar 2	Chapter 6	Deadlocks
14,15	Mar 7, 9	Review, <b>Exam 1</b> (ch. 1-6)	
	Mar 14, 16	Spring Break (no classes)	
16,17	Mar 21, 23	Chapter 7, Chapter 8	Mem Mgmt, Virt Mem
18,19	Mar 28, 30	Chapter 8, Project 2	
20,21	Apr 4, 6	Chapter 9	Scheduling
22,23	Apr 11, 13	Chapter 10, 11	I/O
24,25	Apr 18, 20	Chapter 12, 14	Files, Virtualization
26,27	Apr 25, 27	Related examples	
28,29	May 2, 4	Review, <b>Exam 2</b> (ch. 7-12, 14)	

## **Grading Policy**

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.

The following weights are used in determining the final score.

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

## **Course Policies**

### *Make-up exams*

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.

### *Extra Credit*

The lowest assignment score (but not the lowest project score or exam score) 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.

### *Late Work*

Due dates will be followed by a 24-hour grace period. After the 24-hour period ends, the score is recorded as a zero.

### *Special Assignments*

N/A

### *Class Participation*

If a student appears to have stopped participating, for example, no longer submitting assignments, the student will be reported to the department for follow-up.

### *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).

## **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](#).

## **Classroom Conduct Requirements Related to Public Health Measures**

UT Dallas will follow the public health and safety guidelines put forth by the Centers for Disease Control and Prevention (CDC), the Texas Department of State Health Services (DSHS), and local public health agencies that are in effect at that time during the Spring 2022 semester to the extent allowed by state governance. Texas Governor Greg Abbott's Executive Order [GA-38](#) prohibits us from mandating vaccines and face coverings for UT Dallas employees, students, and members of the public on campus. However, we strongly encourage all Comets to get vaccinated and wear face coverings as recommended by the CDC. Check the [Comets United: Latest Updates webpage](#) for the latest guidance on the University's public health measures. Comets are expected to carry out [Student Safety](#) protocols in adherence to the Comet Commitment. Unvaccinated Comets will be expected to complete the [Required Daily Health Screening](#). Those students who do not comply will be referred to the Office of Community Standards and Conduct for disciplinary action under the [Student Code of Conduct – UTSP5003](#).

## **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. Faculty have the discretion to set an attendance policy for their in-person meetings, but the absences due to COVID-19 cannot be counted against a quarantined student.

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## **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](#).

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## **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.

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## **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 go to [Academic Support Resources](#) webpage for these policies.

**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.***