

# Course Syllabus

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## Course Information

*Number:* CS/SE 4348

*Title:* Operating System Concepts

*Section:* 004

*Semester:* Spring 2021

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## Professor Contact Information

*Instructor:* Neeraj Mittal

*Phone:* (972) 883 2347

*E-mail:* neerajm@utdallas.edu

*Office:* ECSS 4.202

*Office Hours:* Monday, Wednesday 11:30 pm - 12:30 pm. Alternatively, a student can also schedule an appointment by email.

*Other information:* Office hours will be held via Blackboard Collaborate.

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## Teaching Assistant Contact Information

*Name:* Sahil Dhoked

*E-mail:* sahil.dhoked@utdallas.edu

*Office:* Virtual using Blackboard Collaborate

*Office Hours:* Monday, Wednesday 4:30 pm - 5:30 pm

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## Course Modality and Expectations

<b>Instructional Mode</b>	Remote.
<b>Course Platform</b>	Blackboard Collaborate
<b>Expectations</b>	Make a sincere effort to learn
<b>Asynchronous Learning Guidelines</b>	Select the asynchronous option only if you are unable to attend the lectures at the established day and time. If you choose to take the examinations in asynchronous mode, then you should notify me at least one week in advance.

## 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 <http://go.utdallas.edu/syllabus-policies>.

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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. 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 Accessibility 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 Accessibility 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. Any recordings will be available to all students registered for this class as they are intended to supplement the classroom experience. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student Accessibility 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 Accessibility accommodation. 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. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

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### **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 Accessibility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

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

CS/SE/TE 3340 (Computer Architecture) or equivalent, CS/SE 3377 (C/C++ Programming in a UNIX Environment), and CS/SE/CE/TE 3345 (Data Structures and Introduction to Algorithmic Analysis).

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### **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.

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## Student Learning Objectives/Outcomes

The student is expected to learn the following topics:

- An understanding of processes
- An understanding of threads
- An ability to develop concurrent programs
- An understanding of simple memory management
- An understanding of virtual memory
- An understanding of scheduling algorithms
- An understanding of I/O management
- An understanding of file management
- An understanding of OS virtualization

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## Required Textbooks and Materials

*Title:* Operating System Concepts

*Author:* Abraham Silberschatz, Peter B. Galvin and Greg Gagne

*Edition:* Tenth

*Publisher:* John Wiley & Sons

## Other Books

*Title:* Operating Systems: Internals and Design Principles

*Author:* Williams Stallings

*Publisher:* Pearson Prentice Hall

*Title:* Operating Systems

*Author:* Gary Nutt

*Publisher:* Addison Wesley

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## Assignments & Academic Calendar

- Midterm examination: Wednesday, March 10, 2021
- Final examination: Monday, May 10, 2021

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## Grading Policy

The following grading distribution will be used.

Midterm examination	20%
Final examination (comprehensive)	30%
Quizzes and Homework Assignments	20%
Programming Assignments	30%

The grading will be on curve.

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## Course & Instructor Policies

*Examination and Assignment Information:* There will be mixture of individual and group programming assignments. Students are expected to **write their own code**. Code sharing or copying code from other sources is **strictly prohibited and will result in disciplinary action being taken**.

*Late Assignment Policy:* Late assignments carry a penalty of 5% per day (including weekends) and cannot be submitted for credit after the graded assignments have been returned. The late penalty may be waived under exceptional circumstances, provided the instructor is contacted before the penalty is incurred.

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## Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

## Course Access and Navigation

This course can be accessed using your UT Dallas NetID account on the eLearning website.

Please see the course access and navigation section of the Getting Started with eLearning webpage for more information.

To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage. UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

## Communication

This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the Student eLearning Tutorials webpage for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

## Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students webpage for more information.

### **Server Unavailability or Other Technical Difficulties**

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

### **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 go to UT Dallas Syllabus Policies webpage for these policies.

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