# **Computer Operating Systems**

Instructor : Prof. Amanda Bienz Email : bienz@unm.edu

TA : Aayush Gupta Email : aayush@unm.edu

Classroom: Online (Zoom) Class Time: T/Th 9:30-10:45

Office : Online (Zoom) Office Hours : TBD

Welcome to CS 481 / ECE 437! This website contains information about the course. Course description and policies can also be found in the <u>syllabus</u>. Slides and due dates will be posted alongside the schedule. Lecture recordings will only be available on UNM Learn due to privacy policies.

## **COVID 19 Information**

Due to the COVID-19 pandemic, UNM and the School of Engineering will require students, staff, and faculty to follow all health guidelines of the New Mexico Department of Health. Specifically, students, faculty and staff will adhere to social distancing guidelines, will wear masks in all buildings on campus (students are expected to provide their own masks), will maintain a distance of at least six feet from others, and will wash their hands frequently when on campus. To ensure social distancing, classes and laboratories that have enrollments larger than a third of the capacity of the scheduled classroom will be offered in a Face-to-Face + Remote Scheduled format. This will require that students attend class on campus only on certain days, watching the class live via the internet on other days. Your instructor will assign you to specific days to attend on campus – if you have a special need regarding timing, contact your instructor for an accommodation. If you have an underlying health condition that will preclude you from coming to campus, take care of a family member with an underlying condition, or simply do not feel comfortable coming to campus, you can attend remotely; please contact your instructor to make arrangements for this. It is possible that sometime during this semester the pandemic may worsen; if this happens it may be necessary to close campus and transition all classes to a remote delivery.

# **Course Information**

#### **Course Format**

This course will be offered in a remote schedule format. All assignments and exams will be online. The lectures will be presented live on zoom during each class, and recordings of all lectures will be posted on UNM Learn. You will be expected to read sections from the textbook before each class and we will discuss the content and step through examples together. Class attendance is not required and you can attend the course aynchronously if you would like, but are encouraged to attend the classes live so that you are able to ask questions and participate in discussions.

### **Course Description**

CS 481 / ECE 437 is an introductory class in operating systems. We will cover many topics including processes, threads and concurrency, CPU scheduling, synchronization, deadlocks, I/O, and file systems. The schedule (below) will be updated throughout the semester.

### Grading

Grades are given based on the standard 10-point scale (90-100 A, 80-89.9 B, etc.). Note, there will be minuses and pluses (e.g. 90-93 A-) and I rarely give A+'s. There will be no curve for the course. The grades are broken down as follows:

Component	Percentage of Grade
In-class questions	5%
Piazza discussion	5%
4 tests	40%

Component	Percentage of Grade
Homework assignments	50%

#### **Course Materials**

Required textbook: Operating System Comcepts, 10th Edition

- Automatically provided through Inclusive Access (UNM Learn, Course Materials)
- You are welcome to purchase the book elsewhere. To do this, you must opt-out of inclusive access by going Redshelf link in Course Materials on UNM Learn.
- About Inclusive Access

### **Prerequisites**

CS 431 (Computer Organization and Design) or similar. You must know how to use C before taking this course. You will be required to complete homework assignments in C and I will not be teaching the language.

Students are expected to have varying backgrounds in the topics of computer architecture, Parallel programming, and numerical methods. Prior to taking this course, each student should have experience with at least one of the following topics.

# **Class Schedule**

Date	Content	Due	Reading
01/19/21	Introduction to Operating Systems	Office Hour Poll	
01/21/21	<u>Virtualization, Concurrency, Persistence</u>	Piazza Introductions	
01/26/21			Pg. 105-110, 116-123
01/28/21			
02/02/21			
02/04/21			
02/09/21			
02/11/21			
02/16/21			
02/18/21			
02/23/21			
02/25/21			
03/02/21			
03/04/21			
03/09/21			
03/11/21			
03/23/21			
03/25/21			

Date	Content	Due	Reading
03/30/21			
04/01/21			
04/06/21			
04/08/21			
04/13/21			
04/15/21			
04/20/21			
04/22/21			
04/27/21			
04/29/21			
05/04/21			
05/06/21			

### **Course Policies**

### **Attendance Policy**

All classes can be attended online. Attendance (remote or online) is not required, but you will be responsible for material covered during each class. There are micro-assessments due throughout the semester (graded for participation). Missed micro-assessments cannot be made up. The purpose of these micro-assessments is to show how much of the covered material is understood and to determine if further time should be spent on a topic. In total, they only count for 5% of the final grade for the course.

### **Incomplete and Late Assignments**

Late assignments are accepted but penalized unless a valid excuse is communicated before the deadline. If the deadline is missed due to unforeseeable circumstances, we will work something out. Barring a valid excuse, an assignment will be accepted for a 50% reduction once grading has begun and solutions have been posted.

### **Regrading Requests**

Requests for regrading of assignments or exams should be made within two weeks of the date from which the assignment is returned. Assignments will not be regraded after that point. Regrading requests can be made via email.

# **Academic Integrity**

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet the standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course. Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

#### **Accomodations for Disabilities**

In accordance with University Policy 2310 and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as he/she are not legally permitted to inquire. Students who may require assistance in emergency

evacuations should contact the instructor as to the most appropriate procedures to follow. Contact Accessibility Resource Center at 277-3506 for additional information.

If you need accommodation regarding the course format or course requirements, please contact me as soon as possible. We will work with the Disability Services Office to develop a plan for accommodation.

#### Sexual Harassment and Title XI

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education \\ (see pg 15 http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf).\\ This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: https://policy.unm.edu/university-policies/2000/2740.html