

ECE437/CS481 Computer Operating Systems, Fall 2018

Course Syllabus

➤ Course Description:

Introduce the fundamental principles of modern operating systems, including processes, inter-process communications, monitors, message passing, remote procedure call, input/output device management, deadlocks, device drivers, memory management, file system design.

Prerequisites: ECE 331 (Data Structures and Algorithms),

ECE 344, or CS 341 (Introduction to Computing Systems).

➤ Instructor and Teaching Assistants

Course Information	ECE 437/CS 481	Learn.unm.edu
Lecture Time & Place	Tue & Thu 8:00-9:15 am	MECH 218
Course Instructor	Dr. Xiang Sun	sunxiang@unm.edu
Office Hour and Location	Tuesday 2:00-3:00pm	Room 224C, ECE (Temporary)
Teaching Assistant	Guanghui Leon Hang	???

➤ Textbook

1. Silberschatz, Peter Baer Galvin, and Greg Gagne, "Operating System Concepts," 9th edition, ISBN 978-1-118-06333-0, Wiley, Inc, 2013.
2. Robert Love, "Linux System Programming: Talking Directly to the Kernel and C Library, " 2nd edition, ISBN 978-1449339531, O'Reilly Media, June 8, 2013.

➤ Grading Scheme

1. Homework assignment & program projects (15%)
Homework assignments and programming projects are intended to be individual assignments unless a team work is allowed. Evidence of copy will be penalized with zero credit for all guilty parties. No late submission is allowed unless advance notice (at least 2 days) is received with reasonable excuse.
2. Quizzes (15%)
Quizzes will be taken at the beginning of a class. The scope of a quiz mainly includes the contents in the previous 1-2 classes. Notice of having quiz will NOT be notified in advance.
3. Two Mid-terms (20%+20%) and one Final Exam (30%)
Exams will cover material presented in class, programming projects, and homework assignments. Arrangements must be made at least 7 days in advance if you are unable to be present for an exam.

➤ Tentative Schedule

Weeks	Tuesday	Thursday
08/21-08/23	Introduction (§ 1,2,18,19)	Introduction (§ 1,2,18,19)
08/28-08/30	Introduction (§ 1,2,18,19)	Processes & Threads, § 3,4
09/04-09/06	Processes & Threads, § 3,4	Processes & Threads, § 3,4
09/11-09/13	Processes & Threads, § 3,4	Processes & Threads, § 3,4
09/18-09/20	CPU Scheduling, § 6	CPU Scheduling, § 6

09/25-09/27	Exam I (Tentative)	Process Synchronization, § 5
10/02-10/04	Process Synchronization, § 5	Process Synchronization, § 5
10/09-10/11	Process Synchronization, § 5	**Fall Break**
10/16-10/18	Deadlock, § 7	Deadlock, § 7
10/23-10/25	Files, § 10,11,12	Files, § 10,11,12
10/30-11/01	Files, § 10,11,12	Exam II (Tentative)
11/06-11/08	I/O Systems, § 13	Memory, § 8,9
11/13-11/15	Memory, § 8,9	Memory, § 8,9
11/20-11/22	Protection & Security, § 14,15	**Thanksgiving**
11/27-11/29	Protection & Security, § 14,15	Big data and Hadoop
12/04-12/06	Big data and Hadoop	Big data and Hadoop
12/11-12/13	Final Exam (8:00am-10:00am)	***Winter break***

➤ Communication Protocols

You may utilize the discussion board at learn.unm.edu to ask/answer/discuss questions, as well as posting articles, discussions, references, any topics relevant to the course. Information sharing (non-copyrighted material) is strongly encouraged. **If you need to email the instructor or TAs, you must leave your subject line starting with either "ECE437" or "CS481".** We will try our best to reply your email within 24 hours (except weekends or Holidays). Your submitted work (assignments, quizzes, exams, etc.) will be graded within 7-10 days except some programming assignments (in those cases, within 14-20 days instead). If you have any concerns about your grade, you have to request within 7 days from the date we make the grade available online.

➤ Attendance Policy

Regular and punctual attendance is required. UNM Pathfinder policies apply, which in part means instructor drops based on non-attendance are possible. This policy applies regardless of the grading option you have chosen.

➤ Accommodation Statement

Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office.

➤ Cell Phones

As a matter of courtesy, please switch your cell phones to vibrate or turn off your cell phones prior to the beginning of class.

➤ Library and Tutorial Services

UNM-Main campus provides many library services and some tutorial services for students. For library services, go to <http://www.unm.edu/libraries/> to link to a specific library or to contact a librarian. For tutorial services, go to <http://caps.unm.edu/services/online-tutoring/> to explore UNM's online services.