CSCI 460 Syllabus

Course

Operating Systems

Session

Fall 2017

Class Location and Time

9:00 AM – 9:50 AM Monday, Wednesday and Friday

Social Science 362

Instructor

William Knight

Office

Social Science 403

Office hours

3:00 to 4:00 PM Monday, Wednesday and Friday or by appointment

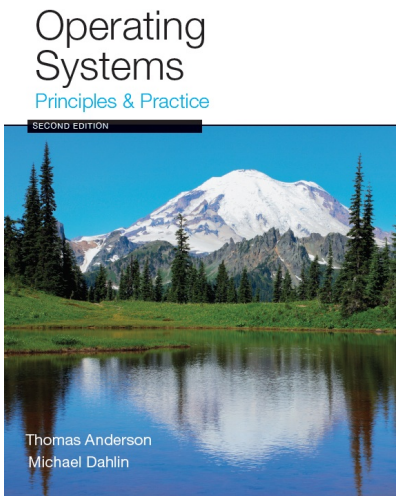
Email

William.Knight@umontana.edu

Course prerequisites

CSCI 205, CSCI 232

Required Text Book



Operating System Principles and Practice 2nd Edition by Thomas Anderson and Michael Dahlin. Publisher: Recursive Books

Learning Outcomes

After successful completion of this course students should be well acquainted with the role of the operating system in the implementation and management of:

- Programs and processes
- Multi-threaded programs
- CPU Scheduling
- Main Memory
- Virtual Memory
- Process Synchronization
- Deadlocks
- File-System
- I/O Systems
- Protection
- Security

Grade Distribution

Exams (2).....20%
Projects (5).....50%
Quizzes(5).....10%
Homework (10).....20%

Grading Scale

90 – 100.....A
87 – 89.....B+
80 – 86.....B
77 – 79.....C+
70 – 76.....C
67 – 69.....D+
60 – 66.....D
00 – 59.....F

Resources

Required Text

Other texts that are often useful

- Linux Kernel Development 3rd Ed., Robert Love
- Pthreads Programming – A POSIX Standard for Better Multiprocessing, Nichols et al.
- Modern Operating Systems 4th Ed, Tanenbaum and Bos

Academic Ethics

Ethics in academic activities are important at the University of Montana. We wish to graduate students who are responsible, hardworking, dependable, and who exhibit integrity and independence of thought.

While I do not mind if you discuss your assignments with your classmates, you are expected to design, edit and print your own assignments. You are expected to take tests without outside assistance. All work is expected to be your own.

Examples:

Splitting up the work in an assignment among several students is not acceptable.

Working together on the solution to an assigned problem, writing-it-up once, and then turning-in a copy, or a copy-and-pasted version, is not acceptable.

Overly similar work will be considered to be the result of copying. If you collaborate with another person for a graded assignment as in the example activities noted above, all parties involved will receive a zero for that assignment. If there are further assignments in which you have collaborated, the matter will be turned over to the Dean of Academic affairs for possible university imposed sanction. It is, therefore, imperative that if you need help on your assignments that you contact your instructor and NOT someone else.

The official University policies can be found in the Student Conduct Code.

Department Contact

Robyn Berg
SS 401
(406) 243-2866
robynb@cs.umt.edu

Disability Accommodations

The Department of Computer Science is committed to equal opportunity in education for all students, including those with documented physical disabilities or documented learning disabilities. University policy states that it is the responsibility of students with documented disabilities to contact instructor DURING THE FIRST WEEK OF THE SEMESTER to discuss appropriate accommodations to ensure equity in grading, classroom experiences, and outside assignments.

The instructor will meet with the student and the staff of the Disability Services for Students (DSS) to make accommodations.

Religious Observance

Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence.

Excused Absences for University Extracurricular Activities

Students participating in an officially sanctioned, scheduled University extracurricular activity will be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work.

Other Useful Information

- No make-up exams will be given without prior consent of the instructor.
- Any student wishing to contest a grade received on a test, program or research paper should contact the Instructor in a timely manner.
- Unless otherwise stipulated in the instructions, all programs must be developed in a UNIX environment using C.
- In-class students are required to turn in assignments and take tests on the date specified.
- Late materials will only be accepted at the discretion of the Instructor and are subject to a late penalty.

Schedule

Week	Dates	Topic	Monday	Wednesday	Friday
1	9/1	Course overview, Introduction			First day of class
2	9/4 – 9/8	Ch 1: Introduction to Operating Systems	Labor Day		
3	9/11 – 9/15	Ch 2: The Kernel	HW 1 due		Quiz #1
4	9/18 – 9/22	Ch 2: The Kernel Ch 3: Programming Interface	HW 2 due		Project 1 due
5	9/25 – 9/29	Ch 3: Programming Interface	HW 3 due		Quiz #2
6	10/2 – 10/6	Ch 4: Concurrency	HW 4 due		Project 2 due
7	10/9 – 10/13	Ch 4: Concurrency			Quiz #3
8	10/16 – 10/20	Ch 5: Synchronization			Midterm
9	10/23 – 10/27	Ch 5: Synchronization Ch 7: Scheduling	HW 5 due		Project 3 due

10	10/30 – 11/3	Ch 7: Scheduling Ch 8: Address Translation	HW 6 due		Quiz #4
11	11/6 – 11/10	Ch 8: Address Translation	HW 7 due		Veterans Day
12	11/13 – 11/17	Ch 9: Virtual Memory			Project 4 due
13	11/20 – 11/24	Ch 9: Virtual Memory	HW 8 due	Travel Day	Thanksgiving
14	11/27 – 12/1	Ch 11: File Systems	HW 9 due		Quiz #5
15	12/4 – 12/8	Ch 11: File Systems Ch 13: Directories	HW 10 due		Project 5 due
16	12/11 – 12/15		Last day of class	Study/Reading Day	Finals
17	12/18 – 12/22		Finals	Finals	Finals