Spring 2-1-2019

CSCI 460.01: Operating Systems

Douglas Raiford
University of Montana - Missoula

CSCI 460 Syllabus

Course

Operating Systems and Systems Software

Session

Spring 2019

Class Location and Time

3:30PM-4:50PM, Tuesday and Thursday

Social Science 362

Instructor

Douglas W. Raiford Ph.D.

Email

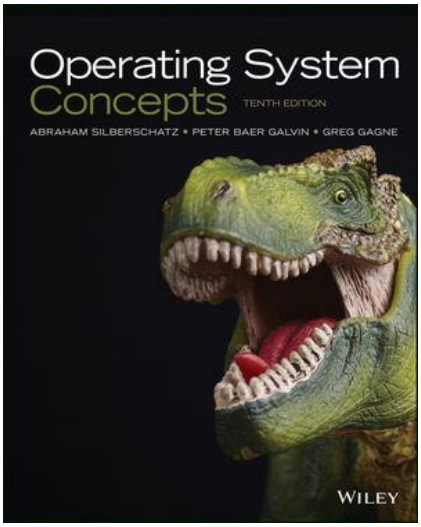
Douglas.Raiford@umontana.edu

Course prerequisites

CSCI 232 data structures

Strongly recommended: 205 programming languages, CSCI 361 architecture

Required Text Book



Operating System Concepts, Enhanced eText, 10th Edition

Office hours

Right after class (and sometimes before)

Or by appointment

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

CSCI 460 Grade Distribution:

Exams (3).....25%
Projects (8).....40%
Homework (6).....15%
Quizzes(15).....15%
Presentation.....5%

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

Helpful Resources

Required Text

the Student Companion Site for Operating System Concepts, Enhanced eText, 10th Edition

Other texts that are often useful

An alternative OS text widely used: Modern Operating Systems, 4th Edition, Andrew S. Tanenbaum
Operating Systems, 3/e Deitel
UNIX for Programmers and Users, 3/e Graham Glass

References

This course uses, predominantly, a Linux environment to illustrate the use of system calls, etc. The following text is a classic that can be useful in understanding these calls:

Advanced Programming in the UNIX® Environment (Addison-Wesley Professional Computing Series) (Hardcover), ISBN-10: 0201563177 · ISBN-13: 978-0201563177

Other tutorials, etc.

- Programming from off campus
- Programming in C
- C Language Tutorial
- Learning vi -- the "cheatsheet" technique
- UNIX Tutorial for Beginners
- Getting Started with Unix
- UNIX help for users
- GNU Make
- POSIX Threads Programming
- Linux Internals

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 or TA 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. Please contact Jim Marks in DSS (243.2373, Lommasson Center 154) for more information.

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 Dr. Raiford in a timely manner.
- Contact the TA to contest grades received on programs
- 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.
- Distance students are to turn in materials as soon as possible (but no later than 2 weeks without permission) after the specified in-class due date.
- Late materials will only be accepted at the discretion of Dr. Raiford and are subject to a late penalty.