

COSC 4302-01 Introduction to Operating Systems Spring 2008

Instructor:

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Class Hours:

MW 4:00pm – 5:15 pm, Maes 111

Office Hours:

T: 2:00pm - 4:00pm, W: 2:00pm – 3:30pm, R: 2:00pm – 4:00pm, and by appointment

Course Description and Objectives:

This course will provide an introduction to the design and implementation of operating systems. The operating system provides a convenient and efficient interface between users programs and the hardware of the computer they are running on. OS is responsible for sharing resources, providing common services needed by different programs, and protecting individual programs from interfering with one another. Students will learn to analyze and design a software solution, and implement a software design specification using C language.

Learning Outcomes:

At the conclusion of the course, students will be able to:

- Master fundamental concepts of operating systems
- Understand process management
- Understand memory management (segmentation, paging, and swapping)
- Understand file management
- Understand CPU scheduling
- Understand synchronization and deadlock
- Understand I/O management
- Understand basics of threads
- Develop corresponding programs using Unix system calls
- Program with the Unix operating system
- Analyze software development problems, design and implement software solutions

Textbook (Required)

- *Operating Systems*, Gary Nutt, Third Edition, Addison Wesley, ISBN: 0-2-0177344-9, 2003
- *Unix System Programming*, K.A. Robbins and S. Robbins, Prentice Hall, ISBN: 0-13-042411-0, 2003

Prerequisite

C programming, data structure

Class Website:

<http://galaxy.cs.lamar.edu/~bsun/OS/OS.html>

This website contains the latest information about the class. Please do check this page frequently.

Grading Policies

Attendance:	5%
Homework/Project:	25%
Midterm Exam:	30%
Final Exam:	40%

No makeup exam will be given due to personal reasons.

Student with Disabilities

This course complies with university policies on disabilities. Please see the Student Handbook for more details.

Academic Honesty

Scholastic dishonesty will not be tolerated. We encourage discussions of assignments. However, the final submitted homework must be the individual work of the student turning it in. Anyone caught copying on a homework assignment (including copying of whole programs or portions of programs) will get a 0 on that assignment. Anyone caught cheating on an exam will get a 0 on that exam.

This course complies with university policies on academic honesty as printed in the Student Handbook.

Late policy

All assignments must be turned in at the beginning of the class on the due date specified. Late assignments will be penalized 10% per day and will be accepted within maximum 2 days after the due date. **Assignments that are more than 2 days late will not be accepted.** All assignments should be typed. Handwritten assignments will not be accepted.