Syllabus
Operating Systems (CS 440) -- Fall 2013

This page contains the syllabus for Operating Systems for Fall 2013. "The course syllabus contains important information regarding course requirements and the grading system utilized. It is the responsibility of the students to read the syllabus and consult the instructor if they have questions." (from UNC 2013-2014 Undergraduate Catalog)

CS 440 007 - Operating Systems - 3 credits
Fall 2013

Class meeting time and location: Monday, Wednesday and Friday, 1:25pm - 2:15pm in Ross Hall 2230G (Linux Lab)
All class material is accessible through Blackboard.

Instructor: Mehrgan Mostowfi, Ph.D. (mer-gone mos-tow-fee)
School: Mathematical Sciences
Office location: ROSS 2240B
Office hours: Monday, Wednesday and Friday, 9:00am - 10:00am, or email to schedule an appointment.
Email: mehrgan.mostowfi@unco.edu
Homepage: http://www.mathsci.unco.edu/facstaff/mostowfi/

Required textbook: The required textbook is Operating System Concepts, 9th Edition, by Abraham Silberschatz, Peter B. Galvin, and Greg Gagne. There will be assigned readings to complement the lectures. These readings will come from handouts and/or material in the textbook.

Catalog course description: Study operating systems history, concepts/structure and design; process, processor, memory, file system and input/output management; and representative operating systems.

Course objectives: As a result of successfully completing this course, students will:

1. Understand the principles of modern operating system design.
2. Recognize and appreciate the differences among most common operating systems.
3. Understand concurrency.
4. Learn scheduling techniques.
5. Understand memory management.

Prerequisites:

- CS 301 -- Algorithms and Data Structures
- Knowledge of C or C++ programming.

Course topics: This course will cover the following topics:

- Week 1 (Aug 26 - Sep 1, 2013): Overview of operating systems
- Week 2 (Sep 2 - 8, 2013): OS structures, system calls
- Week 3 (Sep 9 - 15, 2013): Processes
- Week 4 (Sep 16 - 22, 2013): Processes, IPC
- Week 5 (Sep 23 - 29, 2013): Threads, thread libraries
- Week 6 (Sep 30 - Oct 6, 2013): Wrap-up for Exam 1, Exam 1, Synchronization
- Week 7 (Oct 7 - 13, 2013): Synchronization
- Week 8 (Oct 14 - 20, 2013): Synchronization
Detailed course outline: A detailed course outline that includes readings, assignment and project deadlines, and exam dates is here.

Grading: Students will earn a grade based on assignments, projects, mid-term exams, and a comprehensive final exam. The grade breakdown is:

- Assignments: 20% (five assignments, assigned roughly every third week)
- Project: 20% (due on Sunday, December 15, 2013 by 11:59pm - early submission is very highly recommended, late submissions will not be accepted)
- Midterm exams: 30% (two exams, held in class on Wednesday, October 2, 2013, and Friday, November 8, 2013)
- Comprehensive final exam: 30% (held in class on Friday, December 13, 2013, 1:30pm - 4:00pm)

The grading scale is "no worse than" (+" or -" grades MAY be given to marginal performance, but do not expect them):

- A = 90% through 100% and above
- B = 80% through 89.99%
- C = 70% through 79.99%
- D = 60% through 69.99%
- F = Less than 59.99%

Course policies:

- If you must submit work late you need to talk to me at least one-week before the due date in question. Otherwise, late work cannot be accepted except in cases of verifiable emergencies.
- It is highly recommended that you attend class. I may choose to track attendance.
- We will be observing all university policies regarding religious holidays and disability policies. Any student requesting disability accommodation for this class must inform the instructor giving appropriate notice. Students are encouraged to contact Disability Support Services (www.unco.edu/dss) at (970) 351-2289 to certify documentation of disability and to ensure appropriate accommodations are implemented in a timely manner.
- Incomplete ("I") grades will only be given in the case of severe hardship including verifiable medical emergencies or legal troubles. Simply being "overloaded" and unable to complete your work is not grounds for an "I" grade.
- Out of courtesy to other students please make sure that you turn off, or place in silent mode, your cell phone.

Academic Integrity/Academic Dishonesty: I expect students to be honest and not cheat on their assignments, project, and exams. Students may work together on the project with one other person in the class. Both students will earn the same grade. The exams must be completed without giving or accepting assistance from other students. Any source code copied from another source must be credited as such. Open source software used must maintain all headers and other information as required by the open source license used. I expect you to know the University's policies on student conduct, academic dishonesty, etc. UNC's policies and recommendations for academic misconduct will be followed. For additional information, please see the Dean of Student's website, Student Handbook link and current catalog.

Every part of this syllabus is subject to adjustment as the semester progresses. Please contact me as soon as possible if you have particular interest in material that is relevant to the class topic but not covered in enough detail; I will be happy to accommodate reasonable requests for modifications.

Last update on December 1, 2013