UCF
School of computer Science
COP 5611: Operating Systems Design Principles
Spring 2005

Syllabus

Instructor: Eurípides Montagne  Tele.: 823-2684  email: eurip@cs.ucf.edu
Lecture meetings: TR 3:00 (noon) – 4:15 p.m. (ENG 224)
Office hours: MW from 9:00 a.m. to 11:00 a.m (CSB 239)
TR from 4:30:00 p.m. to 6:30 p.m (CSB 239)

TA: Xingbo Gao  Tele.: TBA  email: xbgao@cs.ucf.edu
Office hours: Wednesday, 2:00 p.m. - 4:00 p.m. (CC1 203)

Course Outline:

We cover Process Scheduling, Process Synchronization, Deadlocks, I/O system, Files system and Protection, Performance evaluation, Concurrent programming, and some Case Studies.

Programming projects are a major part of this course. The purpose of these projects is to implement different modules of an operating system. In addition, there will be programming assignments. You will use the concurrent programming languages BACI and you will have the chance of write programs using semaphores and monitors. Since Concurrent BACI is an extension of the C language, a good knowledge of C is essential to this course.

Each student will give two presentations: a paper presentation (see reading list) of an operating system and a second presentation on some modules of the source code and data structures of UNIX version 6.

Prerequisites:

- COP 4600 – Operating System Concepts.
- Proficiency in C and Familiarity with UNIX.

If you have not satisfied all of the above prerequisites, you do not belong in this class and have little chance of passing.
Reference Guide:

Required readings:


Other recommended books:


Style of Class Meetings:
Class meetings will not consist of traditional lectures, with the instructor doing most of the talking and the student doing most of the listening. Rather, meetings will consist of discussions on each topic and the instructor will help guide the discussion by asking questions.

The Semester Plan: Tentative.

   Interrupts
   Concurrent execution of programs.
   Scheduling
   Process Synchronization
   Process Communication.
   Deadlocks.
   Memory Management
   Virtual Memory
   File Systems
   I/O Systems
   Performance Analysis Techniques.
   Protection.
Grading Policy:
- (15%) Exam #1 – closed book, closed notes exam given in class.
- (10%) Paper review and presentation.
- (15%) Source code presentation
- (20%) Final Exam – closed book, closed notes comprehensive exam. Note: You must score at least 60% on this exam to pass the course.
- (20%) Programming project
- (20%) Programming assignments and HWs

Letter grades:
Over 89: A.
Over 79: B.
Over 69: C.
Over 50: D.
Below 50: F.

Important Dates:
- Classes Begin January 10th.
- Withdrawal Deadline is March 4th.
- Classes End April 25th.
- Spring Holidays are:
  - Martin Luther King Jr. Day January 17th.
  - Spring Break March 14 - 19.
- Final Exams:
  - Monday 4/21(3:00 p.m. to 4:15 p.m.)