

Spring Quarter 2005

CSE660

Introduction to Operating Systems

Instructor: Mario Lauria

CSE660 Intro to Operating Systems

- Instructor: Mario Lauria, email: lauria@cse.ohio-state.edu
 - office location: DL 783, ph: 292-7027
 - office hours: M T 1:30-2:30pm or other time by appointment
- Grader: Bijendra Vishal, email: vishal@cse.ohio-state.edu
 - Office location: CL400, ph: 292-6139
 - Office hours: T W 12 - 1pm
- Text: “*Operating System Concepts, Seventh Edition*”, A. Silberschatz, P. B. Galvin and G. Gagne, John Wesley & Sons 2005
- Exam schedule:
 - mid-term on May 9 (Mon)
 - final exam on Jun 6 (Mon) @ 9:30am
- Class web site:
 - <http://www.cis.ohio-state.edu/~lauria/cse660/>

Grading and homeworks

- Grading
 - Homeworks: 35%
 - Midterm: 25%
 - Final: 40%
- Homework calendar (tentative):
 - Apr 8
 - Apr 22
 - May 4
 - May 20
 - Jun 3

Course Objectives

- to give students an understanding of
 - functions and structures of operating systems
 - issues in the design of operating systems;
- to provide students with appreciations of the process concept and process synchronization/communication;
 - a process is an operating system concept that captures the idea of a program in execution

Course Syllabus

<u>No. of weeks</u>	<u>Topics</u>
1	Introduction to operating systems, overview of related computer architecture concepts (CPU modes of operation, exceptions/interrupts, clock)
2	Process concepts, File system (Unix like) related system calls, Process Control Block, Memory and CPU protection, Process (Unix like) related system calls, Process hierarchy, Shell, Process interactions
1	Process (CPU) Scheduling
2	Process synchronization (critical section problem, synchronization problems, etc), and inter-process communication, Threads
0.5	Deadlocks
2.5	Memory Management (contiguous allocation, paging, segmentation, virtual memory)
1	Disk allocation and disk arm scheduling,

More about the instructor ...

- I joined the CSE Dept in March 2000
 - Education:
 - Laurea and PhD from “Federico II” Univ. of Napoli (Italy), MS from Univ. of Illinois at Urbana-Champaign
 - Postdoc at UIUC and UCSD
 - Currently:
 - I am currently one of the faculty members in the Systems Group, and have a joint appointment with Dept of Biomedical Informatics and Biophysics Program
- My research interests:
 - Cluster architecture
 - communication, cluster file systems
 - High performance computing
 - Data intensive applications, Grid middleware
 - Bioinformatics
 - Algorithms for sequence alignment, biologically inspired computing, cellular computation

More about you ...

- Please raise your hand if you ...
 - ... know how to change the IP address of your machine
 - ... have ever used a system call besides file I/O (i.e. open, read, write)
 - ... have ever used a semaphore