

# CSCI530

## OPERATING SYSTEMS

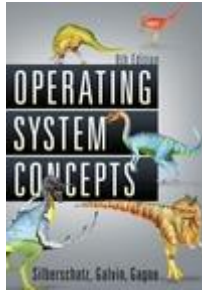
Summer II, 2012  
*Tentative Course Syllabus*

**Instructor:** Sang C. Suh, Ph.D. Professor and head, Department of Computer Science  
Texas A&M University - Commerce  
Office Hours: Walk-ins OR by appointment  
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**Class Meetings:** Web-based

**Course Description:**

General theory and concept behind operating system design are discussed in this course. Topics include operating system structures, memory management, process scheduling, process synchronization and communication, deadlocks, and case studies of other commercially available operating systems. Moderate-size programming project will be used to demonstrate the understanding of design concept of operating systems.



**Textbooks:**

Operating Systems Concepts, 8<sup>th</sup> Edition  
by Abraham Silberschatz, Peter B. Galvin, and Greg Gagne  
Prentice-Hall Inc., 2001, 0-13-031999-6 ISBN

*Operating System Concepts*, now in its *eighth edition*, continues to provide a solid theoretical foundation for understanding operating systems. The eighth edition includes more coverage of the most current topics in the rapidly changing fields of operating systems and networking, including open-source operating systems. The use of simulators and operating system emulators is incorporated to allow operating system operation demonstrations and full programming projects. The text also includes improved conceptual coverage and additional content to bridge the gap between concepts and actual implementations. New end-of-chapter problems, exercises, review questions, and programming exercises help to further reinforce important concepts, while *WileyPLUS* continues to motivate students and offer comprehensive support for the material in an interactive format.

**Recommended Reading:**

Operating Systems *Internals and Design Principles* --- 4th Edition by William Stallings  
Prentice-Hall Inc., 2001, 0-13-031999-6 ISBN

**Topics and chapters to be covered:**

(10%)	Part One: Overview (Chapters 1 and 2)
(30%)	Part Two: Process Management (Chapters 3,4,5,6, and 7)
(20%)	Part Three: Memory Management (Chapters 8 and 9)
(20%)	Part Four: Storage Management
(20%)	Part Eight: Case Studies

**Course Objectives:**

The course objectives are two-fold:

- To learn general theory, concept, and techniques related to the design of operating systems,
- To practice the design of an operating system by performing UNIX programming exercises.

**Course Requirements:**

There will be regularly assigned homework problems. There will be programming projects, which will require the students to spend time in the computer laboratory. To plan a minimum of three hours of outside preparation for each hour of class is a safe time allocation for successfully completing the course. Due dates for all assigned materials will be announced in class in advance. It is the student's responsibility to have all assignments ready on time. Any student who has to be absent on an assignment due date must arrange to have the assignment submitted early. Late assignment may not be accepted. Additional requirements of the course include a number of quizzes, tests, a term paper, and a project report.

**Students with Disabilities Act Compliance:**

Students requesting accommodations for disabilities must go through the Academic Support Committee. For more information, please contact the Director of Disability Resources & Services, Halladay Student Services Bldg., Room 303D, (903) 886-5835

**Academic Ethics:**

"All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (See Student's Guide Handbook, Policies and Procedures, Conduct).

**Attendance Policy:**

Students are expected to be present at all class lectures. If a student is absent from class on the due date of any assignment, they are expected to make alternative arrangements to assure that the assignment is turned in ON TIME. Any student wishing to withdraw from the course must do so officially as outlined in the class schedule. THE INSTRUCTOR CANNOT DROP OR WITHDRAW ANY STUDENT.

**Course Requirement Deadlines:**

Credit will be given for ONLY those exam(s), program(s), and/or project(s) turned in no later than the deadline(s) as announced by the instructor of this class unless prior arrangement has been made with the instructor.

**Method of Evaluation (Tentative):**

Two tests (60%  $\Rightarrow$  20% for the midterm and 40% for final)  
Assignments/Quizzes (20%)  
Class Project (20%)

Final average	Letter grade
90-100	A
80-89	B
70-79	C
60-69	D
Below 60	F