



# Course Weekly Outline

Course Name : Operating System 2

<b>Course Instructor</b>	
<b>E-mail</b>	
<b>Title</b>	
<b>Course Coordinator</b>	
<b>Course Objective</b>	To present operating systems objectives, concepts, structure and mechanisms. To develop students practical knowledge of operating systems by means of advanced use and system programming.
<b>Course Description</b>	(1) Memory Management: Fixed Partitions, Variable Partitions, Virtual Memory, Paging, Page Replacement Algorithms, Segmentation; (2) Input/Output Management; (3) Operating Systems Practice: Linux Operating System, Linux System Programming, Win32 System Programming.
<b>Textbook</b>	-Peterson, Operating System Concepts, Prentice Hall
<b>References</b>	-Tanenbaum, Andrew S. Modern Operating Systems. Prentice Hall. -Hantelmann, Fred. Linux Start-up Guide. Springer. -Kernighan, Brian W. e Ritchie, Dennis M. The C Programming Language (ANSI C). Prentice-Hall. -Robbins, Kay A. Practical UNIX Programming. A Guide to Concurrency, Communication, and Multithreading. Prentice-Hall.
<b>Course Assessments</b>	Term Tests    Laboratory    Quizzes    Project    Final Exam
	C1=15%    10%    10%       50% C2=15%
<b>General Notes</b>	



### Course Weekly Outline

Week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1		Asynchronous Concurrent Processes		
2		Critical section, semaphores, monitors		
3		Memory Management, strategies, allocation		
4		Multiple Partition allocation (MFT, MVT)		
5		Placement, Fragmentation,		
6		Paging method		
7		Segmentation method		
8		Virtual memory, Replacement algorithms		
9		Thrashing, Working set, locality		
10		Disk scheduling algorithm		
11		Caching and Intro to File Systems		
12		Security and the File System		
13		Authentication and Security		
14		File System Implementation		
15		File System Implementation - Performance		
16		Distributed and Networking		

**Instructor Signature:**

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