

## CSC 251 - Operating Systems Lab Outlines

### General Information

<b>Course Number</b>	<b>CSC-251L</b>
<b>Credit Hours</b>	1 (Theory Credit Hour = 0, Lab Credit Hour =1 )
<b>Prerequisite</b>	None
<b>Course Coordinator</b>	Abbas Mehdi

### Course Objectives

The main objectives of the course are to give students the basic concepts of an operating system, types of an operating system, computer system structures, process management, CPU Scheduling, Process synchronization, Deadlock, Memory management and Virtual memory management. Furthermore the students will learn the operating system design algorithms often based on those used in existing commercial operating systems. Our aim is to present these concepts and algorithms in general setting that are not tied to one particular operating system.

### Catalog Description

**CSC-251 L**

### Course Content

- Lab 01: Installation and Linux Commands
- Lab 02: Directories & Files permission and c programs basics
- Lab 03: Script Programming of Shell
- Lab 04: More on Script Programming of Shell
- Lab 05: System Calls
- Lab 06: Process
- Lab 07: Pipes
- Lab 08: Threads
- Lab 09: Implicit Threading using OpenMp
- Lab 10: Synchronization in threads

### Course Learning Outcomes

	Course Learning Outcomes (CLO)
1	Develop an understanding of minimum functionality of operating system
2	Understand the role of critical components like initialization, IVT, system call table, process manager, and file system in operating system

### CLO-SO Map

	SO IDs											
CLO ID	GA 1	GA 2	GA 3	GA 4	GA 5	GA 6	GA7	GA 8	GA 9	GA 10	GA 11	GA 12
CLO 1	1	0	0	0	1	0	0	0	0	0	0	0
CLO 2	1	0	0	0	1	0	0	0	0	0	0	0

### Approvals

Prepared By	Abbas Mehdi
Updated By	Abbas Mehdi
Approved By	Not Specified
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