CSLR42 - Operating Systems Lab

Course Code	:	CSLR42
Course Title	:	Operating Systems Lab
Number of Credits	:	0-0-3-2
Pre-requisites(Course Code)	:	___
Course Type	:	PL

Course Objectives

•To understand the concept of Operating System

•To have insight knowledge on different system calls and Unix Utilities

•To experience the practical side of the functioning of various blocks in OS

•To design a real world application by considering process synchronization, Memory management

Exercises

1.Hands on Unix Commands.

2.Shell programming for file handling.

3.Shell Script programming using the commands grep, awk, and sed.

4.Programs on Multithread using Pthread.

5.Implementation of CPU scheduling algorithms.

6.Implementation of Synchronization problems using Semaphores, Message Queues and Shared Memory.

7.Implementation of Memory Management -Allocation, Placement and replacement Algorithms.

8.Implementation of various Disk scheduling algorithms.

Course Outcomes

Upon completion of the course, the students will be able to:

•Write program on shell script and Pthread

•Solve synchronization problems

•Compare and contrast various CPU scheduling algorithms, Memory allocation policy

•Differentiate the disk scheduling algorithms

Text Books

1.Silberschatz, Galvin, Gagne, "Operating System Concepts", Ninth Edition, John Wiley and Sons, 2013.

2.William Stallings, "Operating Systems –Internals and Design Principles", Eighth Edition, Pearson Publications, 2014.

Reference Books

1.Behrouz A. Forouzan, and Richard F. Gilberg, "UNIX and Shell Programming : A Textbook", Brooks/Cole-Thomson Learning, 2003.

2.Andrew S. Tanenbaum, "Modern Operating Systems", Fourth Edition, Pearson Publications, 2014.

Mapping of Course Outcomes with Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	√		√		√							
CO2	√				√				√		√	
CO3	√	√	√									
CO4	√	√										