Course Type	Course Code	Name of Course	L	T	P	Credit
DP	NMCC524	Operating Systems Lab	0	0	3	1.5

Course Objective

- To inculcate the Shell programming skill and its application. To understand the concept of processes, threads, Scheduling and Deadlocks via programming

Learning Outcomes

- Upon successful completion of this course, students will able to know the fact and figures of computing programming with exposure of Shell Programming with special reference to Process and thread creations, CPU Scheduling Algorithms, Deadlock.

Sl. No.	Name of Experiment/Lab	Contact Hours	Learning Outcomes
1.	Introduction to Shell Programming: Syntax, various commands etc.	2	Students will Come to Know about the basics of shell Programming
2.	Algorithm and coding for Shell Programming	2	They will Come to Know about the logic and coding skill of Shell programming
3.	Execution of Shell Programming	2	They will Come to Know about the execution of Shell programming and skill
4.	Shell Programming continued	2	Finally, they will Come to Know about Shell programming skill
5.	Programming based on Processes	2	They will Come to Know about the programming for process creation
6.	Programming based on Threads	2	They will Come to Know about the programming for Threads creation
7.	CPU Scheduling algorithms-FCFS	2	They will Come to Know about the programming for FCFS
8.	CPU Scheduling algorithms-SJF	2	They will Come to Know about the programming for SJF
9.	CPU Scheduling algorithms-RR	2	They will Come to Know about the programming for RR
10.	CPU Scheduling algorithms- Priority	2	They will Come to Know about the programming for Priority

11.	Programming based on Deadlock	2	They will Come to Know about the programming for Deadlock
12.	Page Replacement Algorithm	2	They will Come to Know about the programming for page replacement algorithm
13.	Learning Practice session	2	They will Come to get the confidence of knowledge input delivered
14.	Practice and Review	2	Practice and Review
Total		**42**	

Text Books

1. Abraham Silberschatz, Peter Baer Galvin and Greg Gagne, Operating Systems Principles, John Wiley and Sons, 2005

Reference Books

1. J. Archer Harris, Operating Systems, Mc Graw Hill,2002
2. Y P Kanetkar, Unix Shell Programming, BPB Publication, New Delhi,1996.