Course Type	Course Code	Name of Course		Т	Р	Credit
DP4	CSC211	Operating Systems Lab	0	0	2	2

Course Objective

Practical experiments will be set based on the topics covered in the theory subject, operating system. It includes programming assignments for practicing and designing on different algorithms used in operating system.

Learning Outcomes

Enhance the ability to implement different algorithms or techniques in the operating system domain.

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Basic Unix commands and shell programming	2	Learn the Unix basics and advanced commands and shell programming which is required for unix based OS programming
2	Implementation of CPU Scheduling algorithm	6	Simulate the results of various algorithms of CPU scheduling and can compare how good various algorithms under different conditions
3	Implementation of Process synchronization methods	4	Simulate the results of various algorithms of Process synchronization and handling various difficult situations.
4	Implementation of Deadlock handling methods	6	Simulate the results of various algorithms of Deadlock detection, avoidance and recovery.
5	Implementation of Disk scheduling algorithms	4	Simulate the results of various algorithms of Disk scheduling.
6	Project Implementation	6	Live tasks of industry or research topics in operating as a project for implementation as well as testing.

Text Books:

1. Abraham Silberschatz, Peter B. Galvin, Greg Gagne, Operating System Concepts, 9th Edition, Wiley Global Education, 2012.

Reference Books:

 William Stallings, Operating Systems: Internals and Design Principles, GOAL Series, Pearson international edition, 2009.