1.	Title of the course	Operating Systems
2.	Course number	CS309L
3.	Structure of credits (L-T-P-C)	3-0-0-3
4.	New course/modification to	Modified with CS305L/OPERATING SYSTEMS
5.	To be offered by	Computer Science and Engineering
6.	Proposed by	V Mahendran
7.	Prerequisite	None
8.	**Course Objective(s):** To discuss the fundamental concepts of modern operating systems on the broad perspectives of process, memory and storage management.	
9.	**Course Content:** Introduction: review of computer organization, history of operating systems; Process management: concepts of threads and processes, processor scheduling including multicore architectures, process synchronisation, deadlocks; Memory management: swapping, paging, segmentation, virtual memory management demand paging, page replacement and frame allocation; Storage management: file concepts, file system implementation, disk scheduling and management, redundant array independent disks, input/output hardware overview, application input/output interface, kernel input/output subsystems; Introduction to secure operating systems.	
10.	**Textbook(s):** 1. Arpaci-Dusseau R and Arpaci-Dusseau A, Operating Systems: Three Easy Pieces, Arpaci-Dusseau Books LLC (2014). 2. Silberschatz A, Galvin P B and Gagne G, Operating System Concepts, 9th Edition, Wiley (2012).	
11.	**Reference(s):** 1. Robbins K A and Robbins S, UNIX Systems Programming: Communication, Concurrency and Threads, 2nd Edition, Pearson (2008). 2. Kerrisk M, The Linux Programming Interface, No Starch Press (2010). 3. Bach M J, The Design of UNIX Operating System, Pearson (1986).	