

Course Code: 202	Operating System	Credits:04	Marks : 100 (Internal -20 External -80)
Course Outcomes	After completion of this course students will be able to- <ol style="list-style-type: none"> 1) Possess knowledge of Operating Systems and their types. 2) Apply the concept of a process and scheduling algorithms. 3) Realize the concept of deadlock and different ways to handle it. 4) Understand various memory management techniques and file system. 		
Unit No.	Descriptions	No. of Periods	
I	Introduction of Operating System- Definition, Objectives, Functions, Generations of OS, Types of OS (Batch, Multiprogramming, Time Sharing, Realtime, Distributed, Personal, Mobile). OS Structure (Monolithic, Layered, Microkernel, Exokernel, Client-Server).	15	
II	Process Management- Process Management-Introduction to Processes, Process Model, Process creation, Process termination, Process hierarchy, Process states.	15	
III	Memory Management- Memory Management-Introduction to memory management, Requirements (Relocation, Protection, Sharing Logical organization, Physical organization). Memory partitioning-Fixed partitioning, Dynamic partitioning, Paging, Segmentation. Concept of Virtual memory.	15	
IV	File System- Files & Filesystem, File structure, File types, File access, File attributes, Basic file operations. Directories-Single-level & Hierarchical directory systems, Path names & Directory operations. Differentiate between Windows and Linux OS.	15	
	Books Recommended: <ol style="list-style-type: none"> 1. Modern Operating Systems, Andrew S Tanenbaum, 3rd Edition, PHI, 2010. 2. Operating Systems, Achyut S Godbole, 2nd Edition, McGraw Hill Publications. 3. Operating Systems, Internals & Design Principles, 4. William Stalling, 6th Edition, Pearson Publications, 5. Operating System, Abraham Silberschatz, Peter Bar Galvin, and Greg Gagne, 2008 6. Operating System, Abraham Silberschatz, Peter Baer Galvin, and Greg Gagne, 7th Edition, 2004 		