GLA University, Mathura		
Learning Delivery Plan: Operating System		
S.No.	**Topic**	**Subtopic**
1	**Introduction+System structure+Process Management**	Functions and Services
		Operating System Classification - Batch, Interactive, Multiprogramming, Time sharing, Real time, MultiProcessing, Multithreading, etc.
		System Calls
		Operating System Structure- Layered, Monolithic and Microkernel Systems
		Process Concept, Process States
		Process State Transition Diagram
		Process Control Block (PCB)
2	**CPU Scheduling**	Basic Concepts
		Scheduling Criteria
		Scheduling Algorithms
		Multiple-Processor Scheduling
3	**Process Synchronization**	The Critical-Section Problem
		Peterson's Solution
		Semaphores
		Classic Problems of Synchronization
		Inter Process Communication models and Schemes
4	**Deadlock**	System Model
		Deadlock Characterization
		Methods for Handling Deadlocks
		Deadlock Prevention
		Deadlock Avoidance
		Deadlock Detection
		Recovery from Deadlock
5	**Memory Management**	Contiguous Memory Allocation
		Paging
		Structure of the Page Table
		Segmentation
6	**Virtual Memory**	Demand Paging
		Page Replacement
		Thrashing
7	**Storage Management**	File System-Access Methods, Directory and Disk Structure, Allocation Methods, Free-Space Management
		Disk Structure
		Disk Scheduling