GOAPAL KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY
GOURAHARI VIHAR, PO: RANIPUT, JEYPORE – 764 005

LESSON PLAN

Name of the Subject: CSPC3002 OPERATING SYSTEMS

Session : 2025-26
Name of the Faculty: Amod Kumar Bagh
Semester:5th **Branch:**Computer Sc. & Engg.
Semester From: JULY 2025 **No. of Hours: 40**

Week	Day	Theory Topics	Classes
		Module-I (10hours) ,.	**10**
1	1	Introduction to OS- About an OS,	1
	2	Simple batch system,	1
	3	multiprogramming and time-sharing system.	1
2	4	Operating system structure	1
	5	operating system services	1
	6	system components, protection system	1
3	7	OS service, System call	1
	8	Process Management- Process Concepts, Process Scheduling,	1
	9	Operation on process, IPC	1
4	10	multi-threading models, Threading issues, Process Scheduling Algorithms	1
		Module-II (10hours)	
	11	Process Coordination & Synchronization	2
	12		
5	13	Critical Section Problem, Peterson's solution	1
	14	Synchronization hardware, Semaphores	1
	15	, Classical problems of Synchronization	1
6	16	Dead-locks – System model	1
	17	Deadlock Characterization,	1
	18	Methods for handling Deadlock	1
7	19	Deadlock Prevention, Deadlock Avoidance	1
	20	Deadlock Detection, Recovery from Deadlock.	1
		Module-III (08 hours)	**8**
	21	Memory Management-Memory Management Strategies	1
8	22	Logical v/s Physical Address Space,	1
	23	Swapping, Contiguous Allocation,	1
	24	Paging, Segmentation	2
9	25		
	26	Virtual Memory-Background	1

	27	Demand Paging, Page Replacement Algorithm,	2
10	28	Allocation of Frame, Thrashing, Demand segmentation	
		Module-IV (08 hours)	**08**
	29	Storage Management- File System concept, Access Methods	1
	30	File System Structure	1
11	31	implementation, Efficiency & Performance	1
	32	Recovery, Overview of Storage Structure, Disk Structure	2
	33		
12	34	Disk Scheduling, Disk Management, Swap Space Management	2
	35		
	36	I/O System overview, I/O Hardware , application I/O interface, Kernel I/O subsystem Transforming I/O request to H/W operation.	1
13		**Module-V (04hours)**	**04**
	37	Distributed systems -	**1**
	38	Distributed file systems,	1
	39	Distributed operating sytems,	1
14	40	Real time systems.	1
	41	Case Studies/ Revisions	
	42		