



**SYNERGY SCHOOL OF ENGINEERING, DHENKANAL**  
**DEPARTMENT OF COMPUTER SCIENCE ENGINEERING**

**LESSON PLAN**

2023 - 24

Discipline: Computer Science & Engineering	Semester: 4 <sup>th</sup> Session:	Name of the Teaching Faculty : Smruti Mayee Mishra
		Subject Code: Th1
Subject: Operating System	No. Of Days/Week Class Allotted: 4	Semester From Date: 16.01.24 To Date: 27.04.24
		No. Of Weeks: 15
Week	Class Day	Theory/Practical Topics
1st	1st	<b>INTRODUCTION:</b> Objectives and Explain functions of Operating system.
	2nd	Evolution of Operating system
	3rd	Structure of operating system
	4th	<b>PROCESS MANAGEMENT :</b> Process concept, process control
2nd	1st	Interacting processes, inter process messages, Implementation issues of Processes.
	2nd	Process scheduling.
	3rd	Job scheduling
	4th	Process synchronization, semaphore (cont...)
3rd	1st	Process synchronization, semaphore.
	2nd	Principle of concurrency, types of scheduling.(cont..)
	3rd	Types of scheduling.
	4th	Question Answer Discussion
4th	1st	Monthly Class Test-1
	2nd	<b>MEMORY MANAGEMENT :</b> Memory allocation Techniques • Contiguous memory allocation
	3rd	Noncontiguous memory allocation(cont..)
	4th	Noncontiguous memory allocation
5th	1st	Swapping
	2nd	Paging
	3rd	Segmentation
	4th	Virtual memory using paging,
6th	1st	Demand paging

	2nd	Page fault handling
	3rd	Question Answer Discussion
	4th	<b>DEVICE MANAGEMENT</b> :Techniques for Device Management: Dedicated
7th	1st	Techniques for Device Management : shared
	2nd	Techniques for Device Management : virtual
	3rd	Device allocation considerations
	4th	I/O Schedule
8th	1st	I/O Device handlers.
	2nd	SPOOLING.
	3rd	I/O traffic control
	4th	Question Answer Discussion
9th	1st	Question Answer Discussion
	2nd	<b>DEADLOCKS</b> : Concept of deadlock, System Model
	3rd	Deadlock Detection
	4th	Resources allocation Graph
10th	1st	Methods of Deadlock handling
	2nd	Deadlock avoidance
	3rd	Recovery from deadlock
	4th	Bankers Algorithm
11th	1st	Safety Algorithm
	2nd	Question Answer Discussion
	3rd	Monthly Class Test-2
	4th	<b>FILEMANAGEMENT</b> : File organization , Directory &file structure
12th	1st	Sharing of files
	2nd	File access methods,
	3rd	File systems, reliability
	4th	Allocation of disk space (cont...)
13th	1st	Allocation of disk space
	2nd	File protection
	3rd	Secondary storage management (Cont...)
	4th	Secondary storage management.

14th	1st	Question Answer Discussion
	2nd	<b>SYSTEM PROGRAMMING:</b> Concept of system programming And show difference from Application Compiler:
	3rd	Compiler, functions of compiler
	4th	Compare compiler and interpreter
15th	1st	Seven phases of compiler, brief description of each Phase (Cont...)
	2nd	Seven phases of compiler, brief description of each phase
	3rd	Question Answer Discussion
	4th	Quiz Test

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Prepared By:

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09/01/24  
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