

SWARNANDHRA
COLLEGE OF ENGINEERING AND TECHNOLOGY
(AUTONOMOUS)
SEETHARAMPURAM, NARSAPUR-534280, WG- DT, AP
DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

TEACHING PLAN

Course Code	Course Title	Year / Sem.	Branch	Contact Hr/ week	Academic Year	Date of Commencement of Semester
20MC1L03	OPERATING SYSTEMS LAB	I/I	MCA	3	2024-25	26.08.2024

Course Outcomes (COs): At the end of the course, student will be able to

Course Outcomes		Knowledge Level (K)#
CO1	Implement various CPU scheduling algorithms and compare results	K5
CO2	Implement various disk scheduling algorithms and compare results	K5
CO3	Implement page replace algorithms	K2
CO4	Implement various memory management techniques.	K2
CO5	Execute basic Linux commands	K1

S.No	EXERCISE/PROGRAM	Proposed Number Labs
EXERCISE-1		
1	1. Study of Unix/Linux general purpose utility commands 2. Study of Bash shell, Bourne shell and C shell in Unix/Linux operating system .	1
EXERCISE-2		
2	1. Study of UNIX/LINUX File System(tree structure). 2. C program to emulate the UNIX ls -l command 3. C program that illustrates how to execute two commands concurrently with a command pipe. Ex: - ls -l sort	1

EXERCISE-3		
3	1. Multiprogramming-Memory management-Implementation of fork (), wait (), exec() and exit (), System calls	1
EXERCISE-4		
4	1. Simulate the Following CPU Scheduling Algorithms A) FCFS B) SJF C) Priority D) Round Robin 2. Multiprogramming-Memory Management- Implementation of fork(), wait(), exec() and exit()	1
EXERCISE-5		
5	1. Simulate The Following a) Multiprogramming with A Fixed Number Of Tasks (MFT) b) Multiprogramming with A Variable Number Of Tasks (MVT) 2. Write a program to implement first fit, best fit and worst fit algorithm for memory management.	1
EXERCISE-6		
6	1.Simulate Bankers Algorithm for Dead Lock Avoidance 2. Simulate Bankers Algorithm for Dead Lock Prevention.	1
EXERCISE-7		
7	1. Simulate The Following Page Replacement Algorithms. a) FIFO b) LRU c) LFU	1
EXERCISE-8		
8	1. Simulate the Following File Allocation Strategies a) Sequenced b) Indexed c) Linked	1
EXERCISE-9		
9	1. Write a Shell program to check whether given number is prime or not. 2. Write a shell script which will display Fibonacci series up to the given range.	1
EXERCISE-10		
10	1. Write a shell script to check whether the given number is Armstrong or not. 2. Write a shell script to accept student number, name, marks in 5 subjects.	1
EXERCISE-11		
11	1. Find total, average and grade using the following rules: Avg>=80 then grade A Avg<80&&Avg>=70 then grade B Avg<70&&Avg>=60 then grade C Avg<60&&Avg>=50 then grade D	1

	Avg<50&&Avg>=40 then grade E	
EXERCISE-12		
12	1. Write a shell script to find minimum and maximum elements in the given list of elements. 2. Write a shell program to check whether the given string is palindrome or not.	1
EXERCISE-13		
13	1. Write an awk program to print sum, avg of students marks list 2. Write a shell script to compute no. of characters and words in each line of given file	1
Lab Internal Examination		

V. Madhulathe
Faculty

Ackow
Head of the Department

Ahmed
Principal