SWARNANDHRA
COLLEGE OF ENGINEEERIN G AND TECHNOLGY
(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	

Faculty **Head of the Department** **Principal**