

**FACULTY OF:** Computer Science **DEPARTMENT OF:** M.Sc(CA & IT)

SEMESTER: II
CODE: 4CS02OPS1
NAME: Operating System

Sr · N o	Subject Code	Subject Name	Teaching Hours/Week				Cre dits	Evaluation Scheme/Semester					Total Marks	
1	4CS02OPS1	Operating	T	T	P	TOTA			Theo	ry	Practical			
		System	H	U	R	L		Sessio	onal	Universi	Session	nal	University	
								Exam		ty	Exam		Exam	
										Exam				
								Mar	Hr	Marks	Mar	Hr	Total	
								ks	S		ks	S	Marks	
			4	0	0	4	4	30	1.5	70	50	1.5	50	150

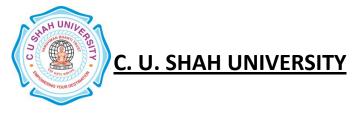
### **Objectives:-**

- Help students become familiar with the fundamental concepts of operating system.
- Help students become competent in recognizing operating systems features and issues.
- Provide students with sufficient understanding of operating system design and how it impacts application systems design and performance.

Sr.No	Course Contents	Total Hrs.
1	Computer and Operating System Overview. Computer system organization and Architecture, Evolution of operating system, Operating system structure and operations overview of Process, Memory, I/O, Storage	10
2	Processes Process states, PCB(Process Control Block), Operation on process, Process Scheduling, IPC (Inter Process Communication),Examples of IPC System Thread Overview, Multithreading model	12
3	File Management Overview, Access Methods, Directory structure, File System Mounting File Sharing, Protection	10
4	Basic Unix Command	10

## **Learning Outcomes:**

- He/She should be able to understand the concepts of Operating System.
- He/She should be aware of operating system failure of know error.
- He/She should be able to solve problems of application errors due to Operation of function and define base



architecture in terms of OS fundamentals.

# **Teaching & Learning Methodology:**

• The module will be delivered via lectures (by teaching aids i.e. Projectors PPT and PDF's) and assignments.

Students are also expected to undertake self-study during this course.

## **Books Recommended:**

- 1. Operating System Principles, **A. Silberschats, Peter Galvin, Greg Gagne,** WILEY-India 7th Edition.
- 2. Operating Systems, William Stallings, Pearson 6th Edition.
- 3. Operating Systems, Achyut Godbole, Tata McGraw-Hill.
- 4. Unix Systems Programming : Communication, Concurrency and Threads, **Kay Robbins**, 2-Edition, Pearson

#### Education

- 5. Unix concepts and applications, **Sumitabha Das**, TMH Publications.
- 6. Unix programming, Stevens, Pearson Education.