

Semester	4	
Course	Minor	
Paper Code	B2CS230412T / B2CS230412P	
Paper Title	OPERATING SYSTEMS	
No. of Credits	4	
Theory/ Practical / Composite	Composite	
Minimum No. of preparatory hours per week a student has to devote	5	
Number of Modules	One	
Syllabus	<ol style="list-style-type: none"> 1. Introduction to operating systems: OS functions, types of operating systems, concurrent processing, multiprogramming, multitasking, batch processing, time sharing. 2. Introduction to Organization of OS - Processor and user modes, kernels, system calls and introduction to system programs 3. Process Management – State of the process, types of resources, process state, threads, Process Scheduling algorithms. 4. Memory Management - Physical and virtual address space, Introduction to memory allocation strategies. 5. Introduction to Concurrent Processes and deadlock. 	
Learning Outcomes	<p>On completion of the course, the students will be able to:</p> <ol style="list-style-type: none"> 1. Understand Operating System Fundamentals 2. Comprehend the Organization of Operating Systems 3. Understand Process Management 4. Explore Memory Management 5. Understand Concurrent Processes and Deadlock 	
Reading/Reference Lists	<ol style="list-style-type: none"> 1. A Silberschatz, P.B. Galvin, G. Gagne, Operating Systems Concepts, 8th Edition, John Wiley Publications 2008. 2. A.S. Tanenbaum, Modern Operating Systems, 3rd Edition, Pearson Education 2007. 3. G. Nutt, Operating Systems: A Modern Perspective, 2nd Edition Pearson Education 1997. 4. W. Stallings, Operating Systems, Internals & Design Principles , 5th Edition, Prentice Hall of India. 2008 	
Evaluation	Theory CIA: 12 Attendance: 3 Semester Exam: 45	Practical CA: 38 Attendance: 2
Paper Structure for Theory Semester Exam	Answer 3 out of 5 of 15 marks each	