

BCSE102P	Structured and Object-Oriented Programming Lab	L	T	P	C
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Pre-requisite	NIL	Syllabus version			
		1.0			
Course Objectives					
<ol style="list-style-type: none"> 1. To impart the basic constructs in structured programming and object-oriented programming paradigms. 2. To inculcate the insights and benefits in accessing memory locations by implementing real world problems. 3. To solve real world problems through appropriate programming paradigms. 					
Course Outcome					
At the end of the course, students should be able to:					
<ol style="list-style-type: none"> 1. Understand different programming language constructs and decision-making statements; manipulate data as a group. 2. Recognize the application of modular programming approach; create user defined data types and idealize the role of pointers. 3. Comprehend various elements of object-oriented programming paradigm; propose solutions through inheritance and polymorphism; identify the appropriate data structure for the given problem and devise solution using generic programming techniques. 					
Indicative Experiments					
1.	Programs using basic control structures, branching and looping				
2.	Experiment the use of 1-D, 2-D arrays and strings and Functions				
3.	Demonstrate the application of pointers				
4.	Experiment structures and unions				
5.	Programs on basic Object-Oriented Programming constructs.				
6.	Demonstrate various categories of inheritance				
7.	Program to apply kinds of polymorphism.				
8.	Develop generic templates and Standard Template Libraries.				
Total Laboratory Hours					60 hours
Text Book(s)					
1.	Robert C. Seacord, Effective C: An Introduction to Professional C Programming, 1 st Edition, No Starch Press, 2020.				
Reference Book(s)					
1.	Vardan Grigoryan and Shunguang Wu, Expert C++: Become a proficient programmer by learning coding best practices with C++17 and C++20's latest features, 1st Edition, Packt Publishing Limited, 2020.				
Mode of assessment: Continuous assessments and FAT.					
Recommended by Board of Studies			03.07.2021		
Approved by Academic Council		No. 63	Date	23.09.2021	