Course Number and Name

BCS4L3 – OBJECT ORIENTED PROGRAMMING AND DATA STRUCTURES LAB

Credits and Contact Hours

2 & 45

Course Coordinator's Name

Dr C.Nalini

Text Books and References

Lab Manual

Course Description

- To learn various object oriented concepts through simple programs.
- To understand the concepts of searching and sorting algorithms

Prerequisites	Co-requisites
BCS1L1-Computer Practice Lab	BCS406-Object Oriented Programming and Data Structures

required, elective, or selected elective (as per Table 5-1)

required

Course Outcomes (COs)

CO1: Implement various object oriented concepts through simple programs.
CO2 : Implement different data structures usingC++
CO3 : Apply the different data structures for implementing solutions to practical problems
CO4 : Demonstrate searching algorithms.
CO5: Demonstrate sorting algorithms
CO6 : To develop the skills in programming using c++ which forms the basics for advanced Programming.

Student Outcomes (SOs) from Criterion 3 covered by this Course

COs/SOs	A	b	c	d	e	f	g	h	i	j	k
CO1	H	H				M		L			
CO2				M	M				M	M	
CO3		M		M	M		M		M	M	
CO4	M	M	M						M		
CO5	M		M						H		
CO6	H	H	M		M		H		H	M	

List of Topics Covered

LIST OF EXPERIMENTS

Programs forC++ Concepts

- Constructors and destructors
- Static data member
- Function overloading
- Operator overloading

- Inheritance

Data Structures

1. List
   - Arrayimplementation
   - Linked list implementation
   - Polynomial operations
2. Stack
   - Arrayimplementation
   - Linked list implementation
   - Applications
3. Queue
   - Arrayimplementation
   - Linked list implementation
4. BinarySearch tree
5. Sorting
   - Quick sort
   - Mergesort
6. Searching
   - Linear search
   - Binarysearch