CL-2001 Data Structure Weekly Lab Plan

1. Topics to be covered:			
List of Topics	No. of Weeks	Contact Hours	CLO
ADT, C++ Language Specification, Pointers revisited, Rule of Three, Dynamic Safe Arrays	1	3	1
Recursion, it's types, issues and Backtracking (with examples)	1	3	2
List (Singly Linked List), List (Doubly Linked List), List (Circular Linked List)	2	6	1, 3
Elementary Sorting Techniques	1	3	1, 3
========== Mid-term 1 Exam ==========			
Advanced Sorting Techniques and their issues, Linear, Binary & Interpolation Search	1	3	3
Stack, Queue, their implementation strategies and applications(Simulation of recursion)	1	3	1, 3
Priority Queues, Heaps as Priority Queues	1	3	1, 3
Binary trees and their properties (Full Binary Tree, Complete Binary Tree), Multi-way Trees/Tries Binary Search Trees, their operations and applications, skewness and issues	2	7	1, 2, 3
========== Mid-term 2 Exam ==========			
Balance in Binary Search Trees, AVL Trees	1	3	2, 3
Hashing, Hash Functions, Collision-resolution Techniques, Rehashing	1	3	1, 3
Graphs and their representation and traversal, Shortest Path	1	3	4

Problem, Minimum Spanning Trees, Graph Algorithms, Topological Sort			
Revision	1	3	
========== Final Exam ==========			
Total	14	43	