Course No. : CSE 3512
Course Title: Algorithm Design and Analysis Sessional
3rd year 1st Semester, B.Sc. in CSE

Course Credit: 1.5

Course Schedule

SL No.	Content
Lab 1	C++ STL: Vector, Map, Priority queue; Time complexity analysis of Quick sort and Merge sort
Lab 2	Time complexity analysis of Heap Sort
Lab 3	Depth First Search, Breadth First Search, Topological Sort
Lab 4	**Problem Solving Based on DFS, BFS and Topological Sort**
Lab 5	Minimum Spanning Tree - I (Kruskal)
Lab 6	Minimum Spanning Tree - II (Prim)
Lab 7	**Mid Term Examination (Syllabus: Lab 1– Lab 6)**
Lab 8	Dynamic Programming (0/1 Knapsack, Longest Common Subsequence (LCS))
Lab 9	Backtracking (N-Queens)
Lab 10	Graph Theory (Graph Coloring Problem)
Lab 11	Single Source Shortest Path Algorithm (Dijkstra, Bellman Ford)
Lab 12	Branch and Bound (Job Assignment Problem, 8 puzzle Problem)
Lab 13	**Lab Final Examination (Syllabus: Lab 8 – Lab 12)**
Lab 14	All Pair Shortest Path Algorithm - Floyd Warshall (Optional)

Grading Policy

- Attendance 10%
- Assignment (Class and Home) / Report 30%
- Mid Term 15%
- Final Exam 40% (Quiz 20% + Programming / Implementation 15% + Viva 5%)
- Viva 5%