

CISC2006: Algorithm Design and Analysis

Syllabus:

- Priority Queue
- Heap, Heapsort
- Binary Search Trees
- Merge-Sort, Quick-Sort
- Recursion, Divide-and-Conquer, Greedy
- Mathematical Induction
- Dynamic Programming
- Graph Traversals: BFS, DFS
- Shortest Path (Dijkstra's Algorithm)
- Minimum Spanning Tree (Kruskal's and Prim's Algorithm)

Reference Textbook:

Data Structures and Algorithms in C++
2th Edition, John Wiley & Sons, Inc. Wiley 2011
M.T. Goodrich, R. Tamassia, and M.H. Goldwasser
Chapters 1 to 8, 10 to 13

