**Algorithms | CSE 207 | Section B**

**Course Plan | Spring 2018**

Course Teacher:

**Sanjay Saha**

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Text book: **Introduction to Algorithms** by Charles E. Leiserson, Clifford Stein, Ronald Rivest, and Thomas H. Cormen

Reference book: **Grokking Algorithms: An Illustrated Guide for Programmers and Other …** by Aditya Y. Bhargava

Other References:

- Videos from YouTube channel **CSBreakdown**

- Videos from YouTube channel **MIT OpenCourseWare [**Playlist: MIT 6.006 Introduction to Algorithms Fall 2011**]**

- Videos from YouTube channel **Gate Lectures by Ravindrababu Ravula** [Algorithms and Data Structures]

Plan Breakdown:

Week 0: Analysis of Algorithms

Week 1: Sorting Algorithms

Week 2: Divide and Conquer, Quick Sort and Merge Sort, Solving Recurrences

Week 3: Heap Sort, Priority Queue, Huffman Coding

Week 4: Greedy Algorithms, Fractional Knapsack

Week 5: Dynamic Programming, 0-1 Knapsack, Longest Common Subsequence Problem

Week 6: Mid Term Exam

Week 7: Minimum Spanning Tree

Week 8: Graph Algorithms-I

Week 9: Graph Algorithms-II

Week 10: Backtracking Algorithms

Week 11: NP-Completeness

Week 12: Parallel Algorithms and/or String Matching

Week 13: <reserve/>

\*\* Keep Calm and Keep on STUDYING \*\*