**Course Outline**

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| **Syllabus** |  | * Step Count Analysis of Algorithms, and Time functions * Asymptotic Notation * Divide and Conquer Algorithms and their Analysis * Merge and Quick Sorts * Graph Fundamentals: Representations & Traverals * Greedy Algorithms: Shortest Paths and Spanning Trees * Dynamic Programming * Randomized Algorithms: Quicksort and other examples * Universal Hashing * Parallel Algorithms * NP-hard problems, backtracking and branch-and-bound |
| **Texts** |  | * Introduction to Algorithms, by Cormen et al.(CLRS) * Algorithms,by Christos Papadimitriou, Sanjoy Dasgupta, and Umesh Vazirani |
| **Grading** |  | * Midterms 30% * Final 40% * Quizzes 10% * Homeworks 20% |
| **Policy regarding Plagiarism** |  | * Plagiarism is not tolerable in any form. Minimum penalty is an ‘F’ grade in the course. It is the responsibility of the student to protect their assignments from being copied. In case of cheating, both parties will be considered equally responsible. |