

LEC #	LECTURE NOTES
1	<u>Overview, Interval Scheduling (PDF)</u>
2	<u>Divide & Conquer: Convex Hull, Median Finding (PDF)</u>
3	<u>Divide & Conquer: FFT (PDF)</u>
4	<u>Divide & Conquer: Van Emde Boas Trees (PDF)</u>
5	<u>Amortization: Amortized Analysis (PDF)</u>
6	<u>Randomization: Matrix Multiply, Quicksort (PDF)</u>
7	<u>Randomization: Skip Lists (PDF)</u>
8	<u>Randomization: Universal & Perfect Hashing (PDF)</u>
9	<u>Augmentation: Range Trees (PDF)</u>
10	<u>Dynamic Programming: Advanced DP (PDF)</u>
11	<u>Dynamic Programming: All-pairs Shortest Paths (PDF)</u>
12	<u>Greedy Algorithms: Minimum Spanning Tree (PDF)</u>
13	<u>Incremental Improvement: Max Flow, Min Cut (PDF)</u>
14	<u>Incremental Improvement: Matching (PDF)</u> <u>Baseball Elimination Notes (PDF)</u>
15	<u>Linear Programming: LP, Reductions, Simplex (PDF)</u>
16	<u>Complexity: P, NP, NP-completeness, Reductions (PDF)</u>
17	<u>Complexity: Approximation Algorithms (PDF)</u>
18	<u>Complexity: Fixed-parameter Algorithms (PDF)</u>
19	<u>Synchronous Distributed Algorithms: Symmetry-breaking, Shortest-paths Spanning Trees (PDF)</u>
20	<u>Asynchronous Distributed Algorithms: Shortest-paths Spanning Trees (PDF)</u>
21	<u>Cryptography: Hash Functions (PDF)</u>
22	<u>Cryptography: Encryption (PDF)</u>
23	<u>Cache-oblivious Algorithms: Medians & Matrices (PDF)</u>
24	<u>Cache-oblivious Algorithms: Searching & Sorting (PDF)</u>