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| Week | Date | Topic | Sections |
| 1 | 01/12 | * Introduction * Stable Matching Problem | 1.1-1.2 |
| 2 | 01/18 | * Basics of Algorithm Analysis – Part 1   + Computational Complexity * Big-O, Theta, Omega Notation | 2.1, 2.2 |
| 3 | 01/24 | * Basics of Algorithm Analysis – Part 2   + Implementing Stable Matching Algorithm * A Survey of Common Runtimes | 2.3, 2.4 |
| 4 | 01/31 | * Graphs – Part 1   + Priority Queue – A More Complex Data Structure   + Graphs – Connectivity and Traversal | 3.1, 3.2 |
| 5 | 02/07 | * Graphs – Part 2   + Implementing Graph Traversal Using Stacks and Queues   + Testing Bi-partness – An Application of BFS   + Connectivity in Directed Graphs   + Directed Acyclic Graphs and Topological Ordering | 3.3 - 3.6 |
| 6 | 02/14 | * **Exam 1** |  |
| 7 | 02/21 | * Greedy Algorithms – Part 1   + Interval Scheduling   + Scheduling Minimum Lateness   + Proof of Correctness Techniques     - Stay Ahead     - Exchange Argument | 4.1, 4.2 |
| 8 | 02/28 | * Greedy Algorithms – Part 2   + Shortest Paths in a Graph   + Minimum Spanning Tree Problem | 4.4, 4.5 |
|  | 03/07 | * Break |  |
| 9 | 03/14 | * Divide and Conquer – Part 1   + The Mergesort Algorithm   + Further Recurrence Relations | 5.1, 5.2 |
| 10 | 03/21 | * Divide and Conquer – Part 2   + Counting Inversions   + Finding the Closest Pair of Points | 5.3, 5.4 |
| 11 | 03/28 | * Dynamic Programming – Part 1   + Weighted Interval Scheduling   + Iteration over Subproblems | 6.1, 6.2 |
| 12 | 04/04 | * Dynamic Programming – Part 2   + Segmented Least Squares   + Subset Sums and Knapsacks | 6.3, 6.4 |
| 13 | 04/11 | * **Exam 2** |  |
| 14 | 04/18 | * Polynomial Time Reduction | 8.1 |
| 15 | 04/25 | * **Final Exam** |  |