

## Tentative Schedule CS 325-400

Week(s)	Topics & Readings from CLRS and JE	Supplements	Assignments
1	Ch 1, 2, 3: Role of Algorithms, Insertion sort, Analysis and Design, Asymptotic notations	KA: Intro to Algorithms. Binary Search Insertion Sort KA: Asymptotic Notation	Quiz 1 HW 1 & Discussion
2	Ch 4: Divide and Conquer  JE: Appendix II: Solving Recurrences	KA: Recursive Algorithms Merge Sort Towers of Hanoi	Quiz 2 HW 2 & Discussion
3	Ch 15: Dynamic Programming JE: 5. Dynamic Programming		Quiz 3 HW 3 & Discussion
4	Ch 16: Greedy Algorithms		Quiz 4 HW 4 & Discussion
5	Mid-term Review	Mid-term Practice	Midterm Exam
6	Ch 22: Elementary Graph Algorithms Ch 23 Minimum Spanning Tree Ch 24: Shortest Path  JE: Basic Graph Algorithms	KA: Graph representation Breadth-first search	Quiz 5 HW 5 & Discussion
7	Ch 29 Linear Programming	LINDO Software available at <a href="http://engineering.oregonstate.edu/computing/citrix/">http://engineering.oregonstate.edu/computing/citrix/</a>	Quiz 6 HW 6 & Discussion
8	Ch 34 NP Completeness, Travelling Salesman Problem  JE: 30. NP Hardness		Quiz 7 HW 7 & Discussion
9 & 10	Ch 35 Approximation Algorithms	Review for Final Exam	Quiz 8 HW 8 & Discussion
11	<b>Final Exam</b>		

\*Note: For this class the Week starts on Monday and ends on Sunday at 11:59pm.

CLRS: Introduction to Algorithms, 3<sup>rd</sup> Edition, Cormen, Leiserson, Rivest and Stein

KA: Khan Academy – Computer Science Algorithms created by Tom Cormen and Devin Balkcom

JE: Algorithms, Etc. by Jeff Erickson, <http://jeffe.cs.illinois.edu/teaching/algorithms/>