

CS5206 (Fall 2010)

Foundations in Algorithms

Course Web: <http://www.comp.nus.edu.sg/~cs5206/2010/>

Tuesday, 6:30 – 8:30pm SR2 (COM1-204)

Leong Hon Wai, COM1 03-41

Tentative Course Schedule (Rev: 07/27/2010)

Wk	Date	In / Out	Topic
1	10/8	HW1 out	<i>Motivation</i> : Stable Marriage Problem, Sample Problems, Interval Scheduling
2	17/8		<i>Analysis of Algorithms</i> (Master Theorem), <i>Divide and Conquer Algorithms</i> Randomized Quicksort (<i>analysis!</i>)
3	24/8	HW1 due HW2 out	<i>Greedy Algorithms</i> : Interval Scheduling, Shortest Path Algorithms, MST, Heaps
4	31/8		<i>Dynamic Programming Algorithms</i> :
5	07/9	HW2 due LEDA out	DS: Data Abstraction, Augmenting Data Structures, LEDA, Binomial Heaps,
6	14/9	HW3 out LEDA due	DS: Amortized Complexity, F-Heaps
B	21/9		** Break **
7	28/9 01/10	Proj-M1 due	DNSRA Project & Problem Reduction MidTerm (Friday, 01-10-10, 7-9pm)
8	05/10	HW3 due HW4 out	<i>NP-Completeness & Proving NP-Completeness</i>
9	12/10	Proj-M2 due	<i>Cook's Theorem & Approximation Algorithms</i>
10	19/10		<i>Approximation Algorithms (continued) & Network Flows</i>
11	26/10	HW4 due	Network Flows & <i>Maximum Matching</i>
12	02/11	Proj-M3 due	<i>Graph Partitioning & BAP Case Study</i>
13	09/11		<i>Local Search Algorithms & Course Summary</i>
S	17/11	STUDY WK STUDY WK	** Project Presentation / Demo **
E	30/11		<i>Final Exam (Open Book)</i>