

The following schedule gives you an idea of the topics we will cover, along with the related reading and homework. It is subject to change.

Week 1 Feb 6 - 10	Introduction, stable matchings, some representative problems. Ch. 1, Ch. 2.1-4 & Ch. 3	hwk 1
Week 2 Feb 13 - 17	Greedy algorithms, minimum spanning trees. Ch. 4	hwk 2
Week 3 Feb 20 - 24	The divide & conquer technique, dynamic programming. Ch. 5.1-4 & Ch. 6.1-2	hwk 3
Week 4 Feb 27 - Mar 2	More dynamic programming. Ch. 6.3-5	hwk 4
Week 5 Mar 5 - 9	Yet more dynamic programming. Ch. 6.6-9	test #1
Week 6 Mar 11 - 16	An introduction to network flows, algorithms for flows. Ch. 7.1-3	hwk 5
Week 7 Mar 19 - 23	The min-cut max-flow theorem, matchings. Ch. 7.5-7	hwk 6
Mar 26 - 30	Spring Break	
Week 8 Apr 2 - Apr 6	Applications of flows and cuts. Ch. 7.8-12	
Week 9 Apr 9 - 13	Computational hardness, reductions, NP-complete problems. Ch. 8.1-4	hwk 7
Week 10 Apr 16 - 20	More NP-complete problems. Ch. 8.5-8	test #2
Week 11 Apr 23 - 27	Solving special cases of NP-hard problems. Ch. 10.1-3	hwk 8
Week 12 Apr 30 - May 4	Introduction to approximation algorithms. Ch. 11.1-3	hwk 9
Week 13 May 7 - 11	More approximation algorithms & online algorithms.	hwk 10
May 16	Take-home Final due by 9pm.	