

Math 331/CSci 331 Graph Theory Syllabus Spring 2010

Week	Date	Section(s)	Topic(s)	Homework
1	1/13		Counting, Permutations	1
	15		Combinations	2
2	18		--- MLK DAY ---	
	20	1.2, 1.3	Graphs, Notation, Examples	3
3	22	1.2	Walks, Trails, Paths, Circuits, Cycles	4
	25	1.2, 1.3	Bipartite & Connected Graphs	5
4	27	2.1	Degrees & First Theorem of Graph Theory	6
	29	2.2, 2.3	Regular Graphs & Erdős Algorithm	7
5	2/1		Review	
	3		Test #1	
6	5	3.1	Isomorphisms	8
	8	3.3	Automorphisms	9
7	10		--- DIVERSITY DAY ---	
	12	12.1	Distance, Eccentricity, Radius, Diameter	10
8	15		Dijkstra's Algorithm	11
	17	4.1, 4.2	Bridges & Trees	12
9	19	4.3	Kruskal's & Prim's Algorithms	13
	22	4.4	Counting Trees & Prüfer Algorithm	14
10	24		Review	
	26		Test #2	
11	3/1-5		--- SPRING BREAK ---	
	8	2.4	Adjacency & Incidence Matrices	15
12	10	5.1, 5.2	Cut Vertices & Blocks	16
	12	5.3	Connectivity	17
13	15	5.4	Menger's Theorem	18
	17	6.1	Eulerian Graphs	19
14	19		Fleury's & Chinese Postman Algorithms	20
	22	6.2	Hamiltonian Graphs	21
15	24	1.4, 7.1	Digraphs	22
	26	7.2	Tournaments	23
16	29		Review	
	31		Test #3	
17	4/2		--- GOOD FRIDAY ---	
	5	8.1	Matchings	24
18	7	8.2	Factors & Factorizations	25
	9	9.1	Planar Graphs	26
19	12	9.1	Euler's Formula	27
	14	10.2	Chromatic Number	28
20	16		Chromatic Polynomials	29
	19		DMP & Brelaz's Algorithms	30
21	21	11.1	Ramsey Numbers	31
	23		Review	
22	26		Test #4	
	28		Review, Teaching Evaluations, hand out Final	
23	5/3 (10 am)		Take Home Final Exam due	