

Lec	Day	Date	Topic	Reading 7e	pp	Homework
<b>Logic, Proofs, and Objects (sets, relations, functions)</b>						
1	Tue	4-Sep-12	Introduction to Course, Propositional Logic	1.1	15	HW 1 out
2	Thu	6-Sep-12	Propositional Equivalences	1.2, 1.3	20	
3	Tue	11-Sep-12	Predicates and Quantifiers	1.4, 1.5	33	HW 1 due; HW 2 out
4	Thu	13-Sep-12	Introduction to proofs	1.6, 1.7	23	
5	Tue	18-Sep-12	Proof Methods and Strategy	1.8	17	HW 2 due; HW 3 out
6	Thu	20-Sep-12	Sets, Set Operations	2.1, 2.2	23	
7	Tue	25-Sep-12	Functions	2.3	18	HW 3 due; HW 4 out
8	Thu	27-Sep-12	Sequences and Summations	2.4, 2.5	21	
9	Tue	2-Oct-12	Mathematical Induction	5.1	22	HW 4 due; HW 5 out
10	Thu	4-Oct-12	Strong Induction and Well-ordering	5.2	11	
<b>Estimating, Counting, and Probability</b>						
11	Tue	9-Oct-12	Basics of Counting, Pigeonhole Principle	6.1, 6.2	22	HW 5 due; HW 6 out
	<b>Wed</b>	<b>10-Oct-12</b>	<b>Midterm exam 1 (8-9:30 pm)</b>			
12	Thu	11-Oct-12	Permutations and Combinations, Binomial Coefficients	6.3, 6.4	16	
	Tue	16-Oct-12	fall break			HW 6 due; HW 7 out
13	Thu	18-Oct-12	Binomial Coefficients, Generalized Permutations and Combinations	6.4, 6.5	19	
14	Tue	23-Oct-12	Discrete probability	7.1, 7.2	23	HW 7 due; HW 8 out
15	Thu	25-Oct-12	Bayes' Theorem	7.3	9	
16	Tue	30-Oct-12	Expectation and Variance	7.4	17	HW 8 due; HW 9 out
<b>Relations, Orders, and Graphs</b>						
17	Thu	1-Nov-12	Relations and their properties	9.1, 9.2	18	
18	Tue	6-Nov-12	Representing relations, Closures	9.3, 9.4	16	HW 9 due; HW 10 out
19	Thu	8-Nov-12	Equivalence Relations, Partial Orderings	9.5, 9.6	25	
20	Tue	13-Nov-12	Graphs, Graph Terminology	10.1, 10.2	27	HW 10 due; HW 11 out
	<b>Wed</b>	<b>14-Nov-12</b>	<b>Midterm exam 2 (8-9:30 pm)</b>			
21	Thu	15-Nov-12	Connectivity	10.3, 10.4	25	
22	Tue	20-Nov-12	Euler and Hamiltonian Paths, Shortest Paths	10.5, 10.6	25	HW 11 due; HW 12 out
	Thu	22-Nov-12	<b>Thanksgiving!</b>			
<b>Algorithms and Complexity</b>						
23	Tue	27-Nov-12	Algorithms	3.1	13	
24	Thu	29-Nov-12	Growth of Functions, Complexity of Algorithms	3.2, 3.3	28	HW 12 due; HW 13 out
25	Tue	4-Dec-12	Recurrence (solving linear recurrences)	8.1, 8.2	26	
26	Thu	6-Dec-12	Divide-and-conquer algorithms and recurrence relations	8.3	10	HW 13 due
27	Tue	11-Dec-12	Final review			
	<b>Tue</b>	<b>18-Dec-12</b>	<b>Final exam (7-9 pm)</b>			