Course Outline

		7 Lecture 1: Proofs.	8	9 Lecture 2: Mathematical induction. Pset 1 out.	10 Recitation.
Feb	13 Tutorial.	14 Lecture 3: Structural induction.	15	16 Lecture 4: Sets, Cartesian products, relations. Pset 2 out.	17 Recitation. Pset 1 due.
Feb	20 MIT HOLIDAY. No tutorials.	21 Monday schedule.	22	23 Lecture 5: Equivalence relations, partitions, posets. Pset 3 out.	24 Recitation. Pset 2 due.
Feb	27 Tutorial.	28 Lecture 6: Functions, cardinality, countability.	1	2 Lecture 7: Graphs. Pset 4 out.	3 Recitation. Pset 3 due.
Mar	6 Tutorial.	7 Lecture 8: Trees.	8	9 Lecture 9: Directed graphs.	10 Recitation. Pset 4 due.

Mar	13 Tutorial.	14 Lecture 10: Logic.	15 Quiz 1, 7–9 PM	16 Lecture 11: Logic. Pset 5 out.	17 Recitation.
Mar	20 Tutorial.	21 Lecture 12: Growth of functions, analysis tools, Stirling's formula.	22	23 Lecture 13: Recurrences. Pset 6 out.	24 Recitation. Pset 5 due.
Mar	27	28	29 SPRING BREAK.	30	1
Apr	3 Tutorial.	4 Lecture 14: Linear recurrences.	5	6 Lecture 15: Basic counting, Permutations, combinations. Pset 7 out.	7 Recitation. Pset 6 due.
Apr	10 Tutorial.	11 Lecture 16: Multisets, more counting.	12	13 Lecture 17: Inclusion/ Exclusion, more counting.	14 Recitation. Pset 7 due.

Apr	17 VACATION	18 VACATION	19	20 Lecture 18: Intro. to probability, sample points, spaces, events, prob. laws. Pset 8 out. Quiz 2, 7 PM	21 Recitation.
Apr	24 Tutorial.	25 Lecture 19: Conditional probability, independence, Bayes thm.	26	27 Lecture 20: Examples and applications. Pset 9 out.	28 Recitation. Pset 8 due.
May	1 Tutorial.	2 Lecture 21: Random variables, joint distributions, expectation.	3	4 Lecture 22: Functions of random vars, variance, Markov and Chebychev inequalties. Pset 10 out.	5 Recitation. Pset 9 due.
May	8 Tutorial.	9 Lecture 23: Examples and applications.	10	11 Lecture 24: Binomial, Poisson, Normal dists., Central Limit Thm.	12 Recitation. Pset 10 due.
May	15 Tutorial.	16 Lecture 25: Bounds on tails.	17	18 Lecture 26: Random walks.	