

## Lecture Calendar

Week	Dates	Main lecture topics
1	Jan 16, 18	Introduction The basics of counting Inclusion-exclusion principle
2	Jan 23, 25	Pigeonhole principle Permutations, combinations Binomial coefficients
3	Jan 30, Feb 1	Balls into boxes: the 12-fold way Algorithms: stable assignments
4	Feb 6, 8	Probability Conditional probability Bayes' Theorem
5	Feb 13, 15	Independence Random variables Discrete distributions
6	Feb 20, 22	More on discrete distributions Expected value, variance ( <i>last topic on Midterm 1</i> ) Statistical tests
7	Feb 27, Mar 1	Parameter estimation Hypothesis testing, $\chi^2$ tests
8	<b>Mar 6</b> Mar 8	<b>MIDTERM #1</b> Catch-up day
9	Mar 13, 15	Recursion equations Differential equations Linear first-order ODE
10	Mar 20, 22	Partial fractions Nonlinear separable ODE Second-order linear ODE ( <i>last topic on Midterm 2</i> )
11	March 26-30	SPRING BREAK
12	Apr 3, 5	Algorithms: Euler's method Algorithms: Dynamic programming, DNA
13	Apr 10 <b>April 12</b>	Matrix algebra Inverses, determinants <b>MIDTERM #2</b>
14	April 17, 19	Algorithms: Gaussian elimination Eigenvalues, eigenvectors
15	April 24, 26	Least squares Linear regression Linear systems of ODE
RRR	May 1, 3	Review (specifics TBD)

## Section Calendar

Date	Assignment Due	Quizzes
W Jan 17		
F Jan 19		Quiz 1
M Jan 22	Homework 1	
W Jan 24	Homework 2	
F Jan 26		Quiz 2
M Jan 29	Homework 3	
W Jan 31	Homework 4	
F Feb 2		Quiz 3
M Feb 5	Homework 5	
W Feb 7	Homework 6	
F Feb 9		Quiz 4
M Feb 12	Homework 7	
W Feb 14	Homework 8	
F Feb 16		Quiz 5
M Feb 19	<i>(no class)</i>	
W Feb 21	Homework 9	
F Feb 23	Homework 10	Quiz 6
M Feb 26	Homework 11	
W Feb 28	Homework 12	
F Mar 2		Quiz 7
M Mar 5	<i>Review for Midterm 1</i>	
W Mar 7	Homework 13	
F Mar 9		
M Mar 12	Homework 14	
W Mar 14	Homework 15	
F Mar 16		Quiz 8
M Mar 19	Homework 16	
W Mar 21	Homework 17	
F Mar 23		Quiz 9
MWF Mar 26, 28, 30	<i>Spring Break</i>	
M Apr 2	Homework 18	
W Apr 4	Homework 19	
F Apr 6		Quiz 10
M Apr 9	Homework 20	
W Apr 11	<i>Review for Midterm 2</i>	
F Apr 13		
M Apr 16	Homework 21	
W Apr 18	Homework 22	
F Apr 20		Quiz 11
M Apr 23	Homework 23	
W Apr 25	Homework 24	
F Apr 27		Quiz 12