DATE	HW DUE	TOPIC
M 8.31		1.1: Course introduction: what is probability?
T 9.1		1.2: Probability spaces
W 9.2		1.3: Basic properties of probability spaces
R 9.3		*Activity:* Review of functions and inequalities
M 9.7		*No class - Labor Day*
T 9.8		1.3: Inclusion-exclusion problems
W 9.9	1-9	1.4: Conditional probability and independence
R 9.10		1.5: Law of Total Probability and Bayes' Law
M 9.14		2.1-2.2: Discrete random variables
T 9.15		2.3: Combinations and permutations
W 9.16	10-21	2.3: More combinatorics; hypergeometric random variables
R 9.17		*Activity:* Charts and pictures for I-E / Bayes style problems
M 9.21		2.4: Bernoulli processes and associated random variables
T 9.22		Review for Exam 1
W 9.23	22-32	**EXAM 1** - covers Chapters 1 and 2 (HW problems 1-39)
R 9.24		*Activity:* Review of derivatives and integrals
M 9.28		3.1-3.2: Continuous random variables
T 9.29		3.3: Transformations of real-valued random variables I
W 9.30	33-39	3.3: Transformations of real-valued random variables II
R 10.1		*Activity:* Review of series formulas
M 10.5		3.4: The Poisson process and associated random variables
T 10.6		3.5: The gamma function
W 10.7	40-48	3.6: Normal distributions
R 10.8		*Activity:* Review of multivariable calculus
M 10.12		3.7: Stirling's formula
T 10.13		Review for Exam 2
W 10.14	49-63	**EXAM 2** - covers Chapter 3 (HW problems 40-63)
R 10.15		4.1-4.2: Discrete joint distributions
M 10.19		*Activity:* Discrete joint distributions
T 10.20		4.3-4.4: Transformations of discrete joint distributions
W 10.21	64-75	5.1: Continuous joint distributions I
R 10.22		*Activity:* Continuous joint distributions
M 10.26		5.2: 5.2: Continuous joint distributions II
T 10.27		5.3: 5.3: Conditional densities
W 10.28	76-85	5.4: Transformations in higher-dimensions I
R 10.29		5.4: Transformations in higher-dimensions II
M 11.2		*Activity:* Practicing transformation problems
T 11.3		Review for Exam 3
W 11.4	86-104	**EXAM 3** - covers Chapters 4 and 5 (HW problems 64-104)
R 11.5		6.1: Expected value

DATE	HW DUE	TOPIC
M 11.9		6.1: Properties of expected value
T 11.10		6.1: Generalized expected value formula
W 11.11		6.2: Variance and covariance
R 11.12		*Activity:* Medians, means, modes and quartiles
M 11.16		6.3: Conditional expectation
T 11.17		7.1: Probability generating functions
W 11.18	105-121	7.2: Moments and moment-generating functions
R 11.19		*Activity:* Review of matrix operations
M 11.23		7.2: Applications of moment-generating functions
T 11.24	122-131	7.2, 7.3: Joint moment-generating functions
W 11.25		*No class - Thanksgiving*
R 11.26		*No class - Thanksgiving*
M 11.30		7.3: Bivariate normal distributions
T 12.1		Review for Exam 4
W 12.2	132-145	**EXAM 4** - covers Chapters 6 and 7 (HW problems 105-145)
R 12.3		8.1,8.2: Markov and Chebyshev inequalities; laws of large numbers
M 12.7		8.3: Central Limit Theorem: statement and proof
T 12.8		8.3: Central Limit Theorem: applications
W 12.9	146-159	*Activity:* Applications of the Central Limit Theorem
R 12.10		Review for Final Exam
T 12.15		**FINAL EXAM** - cumulative (4 PM in SCI 336)