DATE	DUE	TOPIC
M 8.29		1.1: Course introduction: what is probability?
T 8.30		1.2: Probability spaces
W 8.31		1.3: Basic properties of probability spaces
R 9.1		*Activity 1:* Review of functions and inequalities
M 9.5		*No class - Labor Day*
T 9.6		1.3: Inclusion-exclusion problems
W 9.7		1.4: Conditional probability and independence
R 9.8	1-12	1.5: Law of Total Probability and Bayes' Law
M 9.12		2.1-2.2: Discrete random variables
T 9.13		2.3: Combinations and permutations
W 9.14		2.3: More combinatorics; hypergeometric random variables
R 9.15	13-26	*Activity 2:* Charts and pictures for I-E / Bayes style problems
M 9.19		2.4: Bernoulli processes and associated random variables
T 9.20		Review for Exam 1
W 9.21	**EXAM 1 (covers Chapters 1 and 2)**	
R 9.22	27-46	*Activity 3:* Review of derivatives and integrals
M 9.26		3.1-3.2: Continuous random variables
T 9.27		3.3: Transformations of real-valued random variables I
W 9.28		3.3: Transformations of real-valued random variables II
R 9.29	47-52	*Activity 4:* Review of series formulas
M 10.3		3.4: The Poisson process and associated random variables
T 10.4		3.5: The gamma function
W 10.5		3.6: Normal distributions
R 10.6	53-63	*Activity 5:* Review of multivariable calculus
M 10.10		3.7: Stirling's formula
T 10.11		Review for Exam 2
W 10.12	**EXAM 2 (covers Chapter 3)**	
R 10.13	64-71	4.1-4.2: Discrete joint distributions
M 10.17		*Activity 6:* Discrete joint distributions
T 10.18		4.3-4.4: Transformations of discrete joint distributions
W 10.19		5.1: Continuous joint distributions I
R 10.20		*Activity 7:* Continuous joint distributions
M 10.24	72-83	5.2: Continuous joint distributions II
T 10.25		5.3: Conditional densities
W 10.26		5.4: Transformations in higher-dimensions I
R 10.27	84-96	5.4: Transformations in higher-dimensions II
M 10.31		*Activity 8:* Practicing transformation problems
T 11.1		Review for Exam 3
W 11.2	**EXAM 3 (covers Chapters 4 and 5)**	
R 11.3	97-112	6.1: Expected value
M 11.7		6.1: Properties of expected value
T 11.8		6.1: LOTUS
W 11.9		6.2: Variance and covariance
R 11.10	113-121	*Activity 9:* Medians, means, modes and quartiles
M 11.14		6.3: Conditional expectation
T 11.15		7.1: Probability generating functions
W 11.16		7.2: Moments and moment generating functions
R 11.17	122-132	*Activity 10:* Review of matrix operations
M 11.21		7.2: Applications of moment generating functions
T 11.22	133-141	7.2-7.3: Joint moment-generating functions
W 11.23		*No class - Thanksgiving*
R 11.24		*No class - Thanksgiving*
M 11.28		7.3: Bivariate normal distributions
T 11.29		Review for Exam 4
W 11.30	**EXAM 4 (covers Chapters 6 and 7)**	
R 12.1	142-158	8.1-8.2: Markov and Chebyshev inequalities; laws of large numbers
M 12.5		8.3: Central Limit Theorem: statement and proof
T 12.6		8.3: Central Limit Theorem: applications
W 12.7		*Activity 11:* Applications of the Central Limit Theorem
R 12.8	159-175	
T 12.13	**FINAL EXAM (cumulative) 4-6 PM in STR 126**	