

SYLLABUS

(numbers in parentheses indicate textbook sections)

Date	Topic	Pset due	Pset out
W 2/6	L1: Probability models and axioms (1.1-1.2)		1
M 2/11	L2: Conditioning and Bayes' rule (1.3-1.4)		
W 2/13	L3: Independence (1.5)	1	2
M 2/18	<i>Presidents Day Holiday – no class</i>		
T 2/19	L4: Counting (1.6)		
W 2/20	L5: Discrete random variables; probability mass functions; expectations (2.1-2.4)	2	3
M 2/25	L6: Conditional expectation; examples (2.4-2.6)		
W 3/27	L7: Multiple discrete random variables (2.7)	3	4
M 3/3	L8: Continuous random variables – I (3.1-3.3)		
W 3/5	L9: Continuous random variables – II (3.4-3.5)	4	5
M 3/10	L10: Continuous random variables and derived distributions (3.6)		
W 3/12	Quiz 1 , 7:30-9:30 p.m. (covers L1-L7 inclusive; Walker Memorial) No lecture 3/12; no recitations 3/13, but we will have tutorials on 3/13 and 3/14.		
M 3/17	L11: Transforms, Sum of random variables, Convolution (4.1-4.2)		
W 3/19	L12: Iterated expectations (4.3)	5	6
M 3/24	<i>Spring Break – no class</i>		
W 3/26	<i>Spring Break – no class</i>		
M 3/31	L13: Sum of a random number of random variables (4.4)		
W 4/2	L14: Inequalities & Convergence (7.1-7.3)	6	7
M 4/7	L15: Central limit theorem (7.4)		
W 4/9	L16: Bayesian Estimation (new 6.1*)	7	8
M 4/14	L17: MSE; covariance & correlation (4.5-4.6 and new 6.2-6.3*)		
W 4/16	Quiz 2 , 7:30-9:30pm, (covers up to and including L15; Walker Memorial) No lecture 4/16; we will not have recitations on 4/17, but we will have tutorials on 4/17 and 4/18.		
M 4/21	<i>Patriots Day Holiday – no class</i>		
W 4/23	L18: Parameter Estimation (new 6.4-6.5*)	8	9
M 4/28	L19: Classical Statistics (new 6.5*)		
W 4/30	L20: Hypothesis Testing (new 6.6-6.7*)	9	10
M 5/5	L21: Bernoulli process (5.1)		
W 5/7	L22: Markov chains – I (6.1-6.2)	10	11
M 5/12	L23: Markov chains – II (6.3)		
W 5/14	L24: Markov chains – II (6.4)		

Final exam, during finals week

* Referenced section is in the new *Statistical Inference* chapter of the current course text, available as a handout/packet. Copies can be picked up outside 24-312.