MA381 Reading Schedule

Meeting	Date	Topics and Sections Covered	Reading
1	9/5	Introduction, numerical and graphical summary methods	1.1-1.5
2	9/7	Probability introduction, set notation, discrete probability models	2.1-2.4
3	9/10	Sample-point method, tools for calculating sample points	2.5,2.6
4	9/12	Conditional probability, independence, probability axioms	2.8,2.9
5	9/14	Bayes' rule, numerical events and random variables, random sampling	2.10-2.12
6	9/17	More examples	
7	9/19	Probability distribution and expected values of discrete random variables	3.1-3.3
8	9/21	Expected values (cont.), binomial and geometric distributions	3.3-3.5
9	9/24	Negative binomial distribution, hypergeometric distribution	3.6,3.7
10	9/26	Poisson distribution, Tchebysheff's theorem	3.8,3.11
11	9/28		
12	10/1	Moments and moment generating functions (MGF)	3.9,3.10
13	10/3	Probability distributions and expected values of continuous random variables	4.1-4.3
14	10/5	Uniform and normal distributions	4.4,4.5
15	10/8	Gamma distribution	4.6
16	10/10	Beta distribution, Tchebysheff's theorem (part 2)	4.7,4.8,4.10
17	10/12	Expected value of functions of continuous random variables	4.9
18	10/15	Discontinuous functions of continuous random variables	4.11
19	10/17	Review	
20	10/19	Midterm	
21	10/24	Bivariate and multivariate distributions	5.1,5.2
22	10/26	Marginal and conditional probability distributions	5.3
23	10/29	Independent random variables	5.4
24	10/31	Expected value of function of random variables, "special" theorems	5.5,5.6
25	11/2	Covariance of two random variables, expected value/variance of linear functions of random variables	5.7,5.8
26	11/5	Continue on linear functions of random variables	
27	11/7	Multinomial distributions	5.9
28	11/9	Conditional expectations	5.11
29	11/12	Bivariate normal distribution	5.10
30	11/14	Finding distributions of functions of random variables, method of distribution functions	6.1-6.3
31	11/16	Method of transformations	6.4
32	11/19	Method of MGF	6.5
33	11/26	No Class	
34	11/28	Multivariate transformations	6.6
35	11/30	Order statistics	6.7
36	12/3	Sampling distributions related to the normal distribution	7.1,7.2
37	12/5	Central limit theorem, normal approximation to the binomial distribution	7.3,7.5
38	12/7	Proof of the central limit theorem	7.4
		Review	