Statistics 351 (Fall 2007) Syllabus (Tentative) Wednesday, September 5 Introduction to Multivariable Probability Friday, September 7 Random Variables, Moments, and Joint Distributions Monday, September 10 Multivariate Random Variables (Chapter I) Wednesday, September 12 Functions of Random Variables Friday, September 14 The Transformation Theorem Functions of Multivariate Random Variables Monday, September 17 Wednesday, September 19 Conditioning (Chapter II) Friday, September 21 Conditional Expectation Monday, September 24 **Distributions with Random Parameters** Wednesday, September 26 Mixed Gaussian Distributions Friday, September 28 The Bayesian Approach Monday, October 1 **Regression and Prediction** Wednesday, October 3 Martingales Friday, October 5 Order Statistics (Chapter IV) Monday, October 8 NO CLASS (UNIVERSITY HOLIDAY) Wednesday, October 10 MIDTERM #1 Friday, October 12 TBA Monday, October 15 **Order Statistics** Wednesday, October 17 Calculations with Order Statistics Joint Distribution of the Order Statistic Friday, October 19 Probability/Moment Generating Functions (Chapter III) Monday, October 22 Wednesday, October 24 Characteristic Functions Friday, October 26 Some Linear Algebra The Multivariate Normal Distribution (Chapter V) Monday, October 29 Wednesday, October 31 The Covariance Matrix Friday, November 2 First Definition of Multivariate Normal The Multivariate Normal Distribution Monday, November 5 Wednesday, November 7 The Characteristic Function Definition of the MVN Friday, November 9 The Density Definition of the MVN/Independence

Monday, November 12	NO CLASS (UNIVERSITY HOLIDAY)
Wednesday, November 14	Calculations with the MVN
Friday, November 16	MIDTERM #2
Monday, November 19 Wednesday, November 21 Friday, November 23	Conditional Distributions for the Bivariate Normal Independence of \overline{X} and S^2 Independence of \overline{X} and S^2
Monday, November 26	The Poisson Process (Chapter VII)
Wednesday, November 28	The Poisson Process
Friday, November 30	The Poisson Process
Monday, December 3	The Poisson Process
Wednesday, December 5	Final Exam Review
Friday, December 14	FINAL EXAM (9:00 – 12:00)