Statistics 351 (Fall 2008)
Syllabus (Tentative)

Wednesday, September 3	Introduction to Multivariable Probability
Friday, September 5	Random Variables, Moments, and Joint Distributions
Monday, September 8	Multivariate Random Variables (Chapter I)
Wednesday, September 10	Functions of Random Variables
Friday, September 12	The Jacobian for Polar Coordinates
Monday, September 15	The Transformation Theorem
Wednesday, September 17	Functions of Multivariate Random Variables
Friday, September 19	Conditioning (Chapter II)
Monday, September 22	Conditional Expectation and Conditional Variance
Wednesday, September 24	Distributions with Random Parameters
Friday, September 26	Distributions with Random Parameters
Monday, September 29	Regression and Prediction
Wednesday, October 1	Martingales
Friday, October 3	The Bayesian Approach
Monday, October 6	MIDTERM #1
Wednesday, October 8	Order Statistics (Chapter IV)
Friday, October 10	Order Statistics
Monday, October 13	NO CLASS (UNIVERSITY HOLIDAY)
Wednesday, October 15	Distribution of $X_{(k)}$, $k = 1, 2, \ldots, n$
Friday, October 17	Calculations with Order Statistics
Monday, October 20	Joint Density of the Order Statistic
Wednesday, October 22	Transforms (Chapter III)
Friday, October 24	TBA
Monday, October 27	Characteristic Functions
Wednesday, October 29	The Covariance Matrix (Chapter V)
Friday, October 31	The Multivariate Normal Distribution
Monday, November 3	The Multivariate Normal Distribution
Wednesday, November 5	The Density Function Definition of MVN
Friday, November 7	Conditional Distributions for the Bivariate Normal

Monday, November 10	Calculations with the MVN
Wednesday, November 12	Some Tips for Calculating MVN Density Functions
Friday, November 14	The Characteristic Function Definition of MVN
Monday, November 17	Independence of $\overline{X}$ and S^2
Wednesday, November 19	Independence of $\overline{X}$ and S^2
Friday, November 21	MIDTERM #2
Monday, November 24	The Poisson Process (Chapter VII)
Wednesday, November 26	The Poisson Process
Friday, November 28	Restarted Poisson Processes
Monday, December 1	Introduction to the Optional Stopping Theorem
Wednesday, December 3	Gambler's Ruin for Random Walk
Friday, December 12	FINAL EXAM (9:00 – 12:00)