16:958:535:01 Advanced Statistical Methods in Finance  
Spring 2014: Monday, 6:40-9:30 pm, Hill-009, Busch  

By Cun-Hui Zhang  
Department of Statistics and Biostatistics, Rutgers University  

Prerequisites: FSRM 16:958:563 Regression Analysis in Finance  

Course Description: Applications of statistical theory and methods, including regression, multivariate analysis, nonparametric estimation, time series, survival analysis, Brownian motion and stochastic calculus, to the following topics: returns and interest rates, portfolio theory, the capital asset pricing model, derivatives, properties of options, binomial trees, the Black-Scholes-Merton model, Greeks, implied volatility, value at risk, estimation of volatilities and correlations, copulas, credit risk, and more if time permits.  

TA: Chengrui Li, tentative  

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Homework: All homework assignments are due in one week unless otherwise announced. Late homework will not be accepted. DO NOT COPY from each other or from other sources.  

Final grade: Homework assignments, 30%; Midterm Exam, 30% (March 10, tentative); Final Exam, 40% (6:40 pm, May 12, 2014)