Statistics for Financial Engineering
Instructor: Dr. Youngju Lee
Teaching Assistants: Swaroop Yalla & Suman Ganguli

Session 1: March 18th, 2005 12:00PM – 5:00PM
Linear Algebra Review

Session 2: March 19th, 2005 3:00PM – 8:00PM
Set Theory Overview & Pre-Exam

Session 3: March 23rd, 2005 3:00PM – 8:00PM
Probability
- Matrix Algebra for Statistics
- Probability, Sample Space, Independence, Bayes Theorem
- Random Variables – Discrete case
- Random Variables – Continuous case
- Expectation of Random Variables – Continuous and Discrete case
- Joint Distributions
- All about Normal Distribution – including Moment Generating Function, Large Number Theory and Central Limit Theorem
- Conditional Probability and Expectation

Session 4: March 25th, 2005 12:00PM – 5:00PM
Statistics
- Linear Regression with one predictor variable
- Inference in Linear Regression with one predictor variable
- Matrix Approach in Linear Regression
- Simple Linear Regression Diagnostics and Remedial Measures
- Multiple Regressions
- Building Regression Model
- Qualitative Predictor Variable