Academic Integrity
All students are expected to know, understand and live up to the standards of academic integrity explained at http://academicintegrity.rutgers.edu/integrity.shtml.

Computer Policy in the Classroom
The Trading Room has computers connected to the internet and many students come to school with their own laptop computer. Some instructors have complained that some students use computers to chat via the internet, do emails, or simply surf the internet all the time without paying attention to their classes. I find such behavior a huge distraction and disrespect of the instructor and other class participants. Therefore, I ask you to kindly refrain from doing any of those at all in class. Violators will be politely asked to leave the classroom. None of our exams requires a computer, so the usage of a computer during an exam will be considered cheating.

Course Description
This is a quantitatively-oriented financial economics course for the Master of Quantitative Finance (MQF) students. The course covers the basic concepts and analytical techniques of modern portfolio theory and asset pricing. Topics include Fisher separation, risk analysis using expected utility theory, mean-variance analysis, capital asset pricing model, arbitrage pricing theory, state preference theory, consumption-based asset pricing, market efficiency, empirical tests of asset pricing models, and introduction to continuous-time finance and option pricing.

Main References

Other Useful References

**Grading Policy**
1. Exam I, Monday, March 8, 2010, 30%
2. Exam II, Monday, May 3, 2010, 30%
3. Problem sets, 40%
All exams are closed-book, closed-notes. Homework must be submitted in hardcopy. Class participation is important and can affect your grade in borderline cases. I may take class attendance from time to time.

**Topics Covered** (tentative, subject to change)

I. **Review of Expected Utility Theory and Portfolio Decision Problem**
   Copeland-Weston, 3; Huang-Litzernberger, 1

II. **Generalized Risk and Asset Pricing**
    Huang-Litzernberger, 2; Copeland-Weston, 3

III. **The Mean-Variance Frontier**
     Huang-Litzernberger, 3; Copeland-Weston, 5; Cochrane, 5

IV. **Market Equilibrium and the CAPM**
    Huang-Litzernberger, 4; Copeland-Weston, 6

V. **Linear Valuation and Factor Models**
   Huang-Litzernberger, 4; Copeland-Weston, 6; Cochrane, 9

VI. **State Preference Theory and Equilibrium under Complete Markets**
    Huang-Litzernberger, 5; Copeland-Weston, 4; Shreve I, 3

VII. **Testing Asset Pricing Models and Market Anomalies**
     Campbell, et al, 5, 6; Huang-Litzernberger, 10; Cochrane, 12, 15; Copeland-Weston, 6

VIII. **Consumption-Based Asset Pricing**
      Cochrane, 1; Campbell, Lo and MacKinlay, 8

IX. **No Arbitrage Pricing, the Binomial Tree**
    Shreve I, 1

X. **Brownian Motion and Ito’s Lemma**
    Shreve II, 3.2, 3.3, 4.2., 4.3, 4.4; Cochrane, A1, A2, A3

XI. **The Black-Scholes-Merton Model**
    Shreve II, 4.5