

Course Syllabus

Financial Economics (440.642.51)
Masters in Applied Economics Program
Johns Hopkins University

Spring Semester, 2008
Dr. Sang-Sub Lee
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Monday 6:00 – 8:45

1. General Course Objective:

This course is designed as a survey of the core theories in financial economics for master level students. The main objective of the course is to present and help student understand theoretical underpinnings of some of the key ideas and concepts in finance, illustrate how these concepts are applied to solve various financial problems, and finally show quantitative engineering aspect of the theories in practical implementation. Doing so, this course attempt to offer a panoramic introduction to the exciting world of modern financial theories with a reasonable depth and a little taste of hands on experience. The course will survey a number of topics in financial economics, in particular, asset pricing and corporate finance. The main focus of the course will be on theories and quantitative aspects of the theories. However, the empirical evidence related to each topic will be also reviewed through reading assignments.

2. Readings:

2-A) Textbook Sources:

Benninga, Simon, 2008, *Financial Modeling*, 3rd edition, MIT University Press, 2008.

Tirole, Jean, 2006, *The Theory of Corporate Finance*, 1st edition, Princeton University Press, 2006*:

2-B) Other Supplementary References:

Baxter, M., and Rennie, A., 1996, *Financial Calculus: An Introduction to Derivative Pricing*, Cambridge University Press, 1996.

Brealey, R. A., Myers, S., and Allen, F., 2008, *Principles of Corporate Finance*, McGraw-Hill Irwin, 9th ed., 2008.

Cochrane, J., 2005, *Asset Pricing*, 2nd ed., Princeton University Press, 2005**.

Cvitanic, J. and Zapatero, F., 2004, *Introduction to the Economics and Mathematics of Financial Markets*, MIT Press.

Duffie, D., 2001, *Dynamic Asset Pricing*, 3rd ed., Princeton University Press**.

Hull, J. C., 2006, *Options, Futures, and Other Derivatives*, 6th ed., Prentice Hall.

Neftci, Salih, 2000, *Introduction to the Mathematics of Financial Derivatives*, 2nd ed., Academic Press.

*: Recommended.

** : Advanced.

3. Exams and Other Assignments:

There will be one mid-term (40%) and the final (60%).

4. Tentative Course Outline (The detailed reading list will be made available later on.)

I. Introduction

II. Decision Making under Uncertainty

- Expected Utility Theory
- Risk and Risk Aversion
- Portfolio Theories

III. Equilibrium Asset Pricing Models

- CAPM
- Consumption CAPM
- EMH and Behavioral Finance
- Equity Premium Puzzle

IV. Risk Neutral Pricing and Derivative Securities

- Risk Neutral Pricing (Martingale Approach)

➤ Hedging.

➤ Numerical Methods

V. Term Structure of Interest Rates

VI. Selected Topics in Corporate Finance.

VII. Bloomberg Demo.