

Financial Economics (Econ 171A) Course Syllabus

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Office hours: Mondays 4:15 – 5:15PM or by appointment

Financial Economics
Econ 171A
Summer 2008

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Summer, 2008 (M, T, and TH: 1:45 am-4:15am)

Course Description

The path-breaking advances in finance theory and practice over the past decades have profoundly changed the financial world. These changes are further accelerated by the extensive globalization of financial markets and the rapid development in financial technologies in recent years. This course provides a rigorous introduction to the fundamentals of modern financial analysis and their applications to business challenges in capital budgeting, project evaluation, corporate investment and financing decisions, and basic security analysis and investment management.

The course is lecture based. Lectures will consist of covering the theory, examples, and class discussion. Homework assignments will focus on applying the material from lectures.

The major topics to be covered are:

- Introduction to financial instruments
- Risk and return
- The time-value of money and net present value rule (NPV);
- Market efficiency
- Capital allocation
- Equity valuation
- Bond Pricing and the Term Structure of Interest Rates.
- Derivatives - Pricing and Use
- Portfolio theory.
- Pricing models, such as the Capital Asset Pricing Model and Arbitrage Pricing Theory;
- Credit risk, international markets

Course Description

Readings

REQUIRED:

- Zvi Bodie, Alex Kane and Alan J. Marcus, **Investments**, 8th edition ISBN: **0-07-338237-X**, McGraw-Hill.

RECOMMENDED:

- Robert J. Shiller, *Irrational Exuberance*, Princeton University Press;
- Hull, John, *Options, Futures, and other Derivatives*, Pearson education.
- Malkiel, *A Random Walk Down Wall Street*, 8th edition, W.W. Norton.
- Wall street Journal.

Course Requirements

You are required to attend all classes, participate in class discussions, familiarize yourself with the policies on academic integrity (see below). You should also keep up with general financial news. This will be part of the basis of class discussion. Your grade will be based on class participation, attendance, in class review problems (short quizzes), problem sets, and the final exam. The final will be closed-book, however, formula sheets will be given in the exam.

Course grades will be determined according to the following weighting scheme:

10%	Class participation
30%	Problem sets
20%	in-class quiz
40%	Final examination

Disability

If you are a student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in this class, please discuss the matter with me at the earliest possible time.

Academic integrity

You are expected to be honest in all of your academic work. The University policy on academic honesty is distributed annually as a section of the Rights and Responsibilities handbook. Instances of alleged dishonesty will be forwarded to the Office of Campus Life for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University.

Schedule of Lectures

Introduction

Introduction to Net Present Value Calculation

Institutional Background

BKM – chapters 1-5

Time Value of Money and the Price of Risk

Risk

Asset returns. Measures of risk.

BKM – chapter 5

Portfolio Theory

Diversification. Systematic risk and non-systematic risk. Portfolio theory. Efficient risk-return trade-offs.

BKM – chapters 6-7

Capital Asset Pricing Model (CAPM) and Its Extensions

The CAPM and linear risk/return trade-offs. Applications of the CAPM. Empirical evidence and extensions of the CAPM.

BKM – chapter 9

Arbitrage Pricing Theory (APT)

Factor models of asset returns. The APT and its implications.

BKM – chapter 10

Market Efficiency

Efficient Market Hypothesis (EMH). Implications and empirical tests of the EMH.

BKM – chapter 11

Valuation

Common Stocks

Discount Cash Flow Model (DCF). EPS, D/P, P/E, PVGO, and discount rates.

BKM – chapter 18

Fixed-income Securities

Fixed-income markets. Term structure of interest rates. Forward interest rates. Market conventions. Properties of bond prices.

BKM – chapter 14-15

Options

Options contracts and basic properties. Valuation of options, binominal, risk-neutral pricing, Black-Scholes formula.

BKM – chapter 20-21

Forwards and Futures

Forward and futures contracts and prices. Hedging with forward and futures.

BKM – chapter 22

Tentative chapter -Security Analysis

Financial Statement Analysis

BKM – chapters 18-19

Final Review Session

General course review.

Final Examination