Investment Analysis

Korea University International Summer Campus Summer 2017

Prof. Jaewon Choi

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Sections:

1. ISC388: M-Th 4:50pm-6:30pm, Classroom TBA

Office hour: By appointment

Course Description

Current theories of portfolio management are covered in considerable detail to provide a conceptual framework for the evaluation of investment strategies. Applications and implementation are covered in depth, including performance evaluation and international diversification.

Overview

This course is a rigorous, quantitative introduction to portfolio management for students who are already familiar with financial markets. The main topics of the course are arbitrage, portfolio selection, equilibrium asset pricing (CAPM), multi-factor models, fixed income securities and derivative pricing. You are expected to understand valuation formulas and be able to apply them to new problems. The appropriate tools necessary for solving these problems will be developed at each stage and practiced in the homework assignments. The models we will cover have immediate applications and implications for real-world financial decisions. Every effort will be made to relate the course material to current financial news.

To take this course, students must be comfortable with statistics, linear algebra, calculus, and microeconomics.

Prerequisites

Students also must have taken intermediate statistics, multivariate calculus, linear algebra, and microeconomics.

Mathematical Skills

This course is computationally very demanding. Students must be able to calculate high moments and linear combinations of random variables by hand and also be able to solve a system of linear equations (involving two or more variables) and quadratic equations. Intermediate knowledge in calculus required.

Textbook

Class notes are self-contained. The following book can be useful:

Recommended additional readings (optional):

- 1. Essentials of Investments by Bodie, Kane and Markus. (McGraw-Hill)
- 2. The Wall Street Journal & The Financial Times
- 3. Essentials of Corporate Finance (Ross, Westerfield and Jordan, McGraw-Hill)

For advanced readers (optional):

- 4. Modern Portfolio Theory and Investment Analysis (Elton, Gruber, Brown and Goetzmann, Wiley)
- 5. Options, Futures and Other Derivatives (Hull, Prentice Hall)

Exams

All exams are "closed book". Only financial calculators are allowed. Use of other material (e.g. iPhone) is a violation of the honor code. There will be two exams and two quizzes. The midterm exams will be announced later (during the regular class time). The final exam will be cumulative and will be during the final exam week.

Homework Assignments

There will be weekly homework assignments graded on a check/no-check basis. You may work in groups but you must write up and submit your assignments individually. Homework will be collected in class; homework turned in within 24 hours of deadline will be considered late and will receive a half point; After 24 hours, no assignments will be accepted unless due to serious illness or family emergency. Electronic submission via email is also accepted. Class participation will be based on questions and comments in class and attendance at lab sessions.

Grading

The overall grade for the course will be based on the following:

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30% Midterm
40% Final
10% Quiz
10% Homework
10% Class participation
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The grade curve will be based on the following distribution:

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Top 3% of class A+
3-10% of class A
10-25% of class A-
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25-35% of class B+
35-60% of class B
60-75% of class B75-100% of class C+ or lower

Course Website

Class announcements, lecture materials and homework will be posted on the website.

Cellular Telephones

Students should turn off cell phones before entering class. Interruptions caused by a ringing cell phone may be considered as part of the grade.

Academic Integrity

The University Honor Code applies. You are responsible for known and abiding by the rules.

If you engage in an act of academic dishonesty, you become liable to severe disciplinary action. Such acts include cheating; falsification or invention of information or citation in an academic endeavor; helping or attempting to help others commit academic infractions; plagiarism; offering bribes, favors, or threats; academic interference; computer related infractions; and failure to comply with research regulations.