Course Objectives

The objective of this course is to develop key concepts in investment theory from the perspective of a portfolio manager and apply them using real financial markets data. Topics include portfolio optimization and asset pricing theories, and their applications to problems in modern financial practice. This course also explores the application of various financial instruments in investment management and introduces the basic techniques of portfolio performance evaluation.

Prerequisite

It is strongly recommended that students take basic finance courses (FIN2004 or equivalent) prior to taking this course.

Textbook


Recommended readings:
- *A Random Walk Down Wall Street*, by Malkiel
- The financial press such as *The Wall Street Journal, The Financial Times*, and *The Business Times*. 
Grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>5%</td>
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<tr>
<td>3 Tutorial Assignments (group-based)</td>
<td>9%</td>
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<tr>
<td>1 Case Study and 2 Critiques (group-based)</td>
<td>21%</td>
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<tr>
<td>Ethics Quiz</td>
<td>5%</td>
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<tr>
<td>Test 1</td>
<td>25%</td>
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<td>Test 2</td>
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<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Closed Book Tests

Students are allowed to bring in ONE (1) sheet (A4 size) of formulas. Only NUS approved calculators are allowed. The tests may consist of open-ended questions that examine the overall understanding and creativity of the student with respect to the course materials.

Class Participation

Students are expected to read suggested readings in advance of class and to actively participate in class discussions. Extra credit will be granted to those who can contribute towards class discussions.

Case Assignments

Three cases will be discussed in this course. Each class will be broken into nine groups for case assignments. For each case, there will be three primary groups and six critique groups. Groups 1A, 1B, & 1C will take on the primary responsibility for case 1; groups 2A, 2B, & 2C for case 2, and groups 3A, 3B, & 3C for case 3. The three primary groups for the case will each submit a double-spaced, typewritten comprehensive report not exceeding 15 pages (including texts, tables, and appendices) by the due date. The instructor will then distribute the reports to the 6 critique groups, which are required to submit a one-page, double-sided critique of the reports in class before the case presentation. During case presentation, the three groups with primary responsibility will be given 30 minutes each to present their analysis. All students are expected to actively participate in the case discussions. Case assignment and guidelines will be made available on IVLE two weeks before the due date.

Tutorial and Discussion

Students are expected to come prepared for the tutorial. Each tutorial consists of a number of questions and/or mini-cases related to topics that are covered in class. These questions may require downloading and analysis of financial data. Please note that group-based answers will be collected for grading. The group membership is the same as that for case study. Based on the quality of the submissions, certain groups will be requested to present the tutorial answers in class.

Submission Policy

ALL group tutorial answers and case reports/critiques must be submitted by the due date and time. Late submissions will be penalized.
Course Content:

1. Introduction to Investments
   - What is an investment?
   - How securities are traded?
   - Buying on margin and short selling

2. Risk and Return
   - Rates of return
   - Risk measurement
   - Risk premiums and risk aversion
   - Inflation and real rates of return
   - Mean-variance criterion

3. Portfolio Analysis
   - Diversification
   - Risk and return for portfolios
   - Capital allocation line
   - Risk tolerance and asset allocation

4. Asset Pricing Theories
   - The Capital Asset Pricing Model (CAPM)
   - Multifactor pricing models
   - Arbitrage Pricing Theory (APT)

5. Portfolio Management and Performance Evaluation
   - Mutual funds, hedge funds, and other investment vehicles
   - Performance evaluation

6. Market Efficiency and Behavioral Finance
   - Efficient market hypothesis
   - Tests of market efficiency
   - Limits to arbitrage
   - Behavioral finance

7. Fixed-income Securities
   - Bond prices and yields
   - The term structure of interest rates
   - Managing fixed-income portfolios

8. Derivatives
   - Futures and options
   - Options valuation