Finance 870 – Theory of Financial Decision Making

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Assistance: Please email me your questions and concerns. I make every attempt to reply by the end of the day. We can also discuss issues by phone or through arranged meetings.

Course Overview

This is a graduate-level course on the branch of microeconomics called financial economics. This course has been developed for M.S. students in finance and is also appropriate for Master and Ph.D. students in Economics. The topics in this course form the necessary building blocks for all of the traditional topics in finance including corporate finance, investments, financial markets and institutions and derivatives.

Required Material

The text for this course is:

Course Requirements and Grading:

Your grade will be determined by your performance across 5 problem set/quizzes, one 75 minute in-class midterm exam, and one final exam. Failure to complete work will result in a grade of ‘I’ until it is completed. The weights each item will count toward your final grade are as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight</th>
<th>Date</th>
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<tbody>
<tr>
<td>Four periodic quizzes/problem sets</td>
<td>50%</td>
<td>Periodic</td>
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<tr>
<td>Midterm Exam</td>
<td>25%</td>
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<tr>
<td>Final exam</td>
<td>25%</td>
<td>100%</td>
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The quizzes/problem sets will be constructed to take about 30 minutes in class and significantly more time out of class. They are typically composed of 4-5 short essay and short calculation problems for the in-class portion and a few more in-depth problems to be completed out of class. The midterm and final exams will contain a mix of short and long essay and quantitative problems. The quizzes and exams will test knowledge of material as covered in class and in the quizzes/problem sets.
Course Outline

Topic #1: Utility Theory (Weeks 1-3)
  Chapters 1-3 and Appendix A
  Major Topics: Consumption and investment, capital markets, Fisher separation, capital budgeting and discounting, risk aversion

Topic #2: State-Preference Theory (Week 4)
  Chapter 4
  Major topics: Pure securities, optimal portfolio decisions

Topic #3: Mean-Variance Portfolio Theory (Weeks 4 & 5)
  Chapter 5 and Appendix B
  Major topics: Risk and return for: single asset, two assets, many assets, portfolio diversification

Topic #4: The Capital Asset Pricing Model and Arbitrage Pricing Theory (Weeks 6-9)
  Chapter 6
  Major topics: Derivation and application of the CAPM and APT

Topic #5: Theory of Options (Weeks 9-11)
  Chapter 7 and Appendix D
  Major topics: Put-Call parity, derivation and application of the binomial and Black-Scholes option pricing models

Topic #6: Futures and Interest Rates (Weeks 11 & 12)
  Chapter 8
  Major topics: Term structure of interest rates, pricing futures and forward contracts

Topic #7: Real Options Analysis (Weeks 13 & 14)
  Chapter 9
  Major topics: Compare NPV with real options analysis, defining and valuing real options