Brandeis University
Department of Economics

Summer School 1 Session 2024
ECON 171A - Financial Economics
M/Tu/Th | 11:10 AM - 1:40 PM | 06/03/2023 - 07/05/2023
Class and Office Hour Link: https://brandeis.zoom.us/j/6604257116

Instructor: Krisztian Gado
Office Hours: Thursdays 1:40 PM to 2:40 PM or by appointment at:
https://brandeis.zoom.us/j/6604257116
Email: krisgado@brandeis.edu

Overview:
This course aims at developing key concepts in investment theory and practice from the perspective of an investment professional rather than an individual investor. The goal of this class is to provide students with a structure for thinking about investment theory and with the framework for addressing investment problems in a systematic manner. The course covers topics related to financial economics, including investors' attitudes toward risk, capital allocation, portfolio selection, asset pricing models (Capital Asset Pricing Model and Arbitrage Pricing Theory), efficient markets, fixed income, and equity.

Learning goals and outcomes:
- Explain the fundamental principles of investment in financial markets: how investors make investment decisions and what determines returns and asset valuations
- Develop quantitative models to inform decisions involving: capital allocation and fixed income securities/bond markets
- Apply principles and theories related to financial economics to current events in financial markets.
- Develop a professional and persuasive presentation based on research and synthesis of learning materials.

Pre- and Co-Requisites
For this course students are expected to have completed Econ 80a (Microeconomic Theory) and 83a (Statistics for Economic Analysis). While the instructor will review some material from these prerequisite courses during lectures, such review will not serve as substitutes for completing the required courses.

Course Materials

The textbook for the course is: **Bodie, Kane, and Marcus (BKM) "Investments" 12th edition**. The 10th and 11th edition of this book covers very similar material but there are parts of the book that have changed substantially. IF you are able to locate a reasonably priced copy of the textbook, I recommend the 11th edition as reference.

Policy on calculators

You can use any calculator you would like when solving problems on the problem sets, including scientific, programmable, graphing, financial, or software (such as Excel). In order to prepare for this, I strongly advise everyone to make sure that you have a calculator available to you which you can use to solve problems at exam time.

Academic Accommodation

Brandeis seeks to create a learning environment that is welcoming and inclusive of all students, and I want to support you in your learning. If you think you may require disability accommodations, you will need to work with Student Accessibility Support (SAS) (781-736-3470 - access@brandeis.edu - brandeis.edu/accessibility.edu). You can find helpful student FAQs and other resources on the SAS website, including guidance on how to know whether you might be eligible for support from SAS.

If you already have an accommodation letter from SAS, please provide me with a copy as soon as you can so that I can ensure effective implementation of accommodations for this class. In order to coordinate exam accommodations, ideally you should provide the accommodation letter at least 48 hours before an exam.

Academic integrity

You are expected to be familiar with and to follow the University's policies on academic integrity. 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.

See: "Brandeis University Rights and Responsibilities" chapter 3;
(http://www.brandeis.edu/studentlife/sdc/rr/).

Here is the first part: "3.0 Every member of the University community is expected to maintain the highest standards of academic integrity. A student shall not submit work that is falsified or is not the result of the student's own effort. Infringement of academic honesty by a student subjects that student to serious penalties that may include failure on the assignment, failure in the course, suspension from the University or other sanctions (see Section 21). A student who is in doubt regarding standards of academic honesty in a course or assignment should consult the faculty

member responsible for that course or assignment before submitting the work. A student's lack of understanding is not a valid defense to a charge of academic dishonesty." If you are ever in doubt about any of these rules, please contact me immediately.

ChatGPT / Other AI Tools

As a college student, it is your responsibility to maintain the highest standards of academic integrity. Representing work generated by artificial intelligence as one's own work is considered to be academically dishonest. This includes (a) ensuring that all work submitted for grades is your own original work, and (b) properly citing any sources that you use.

Your Grade Will be based on the following

1. Class Participation and Current News Discussion (25%)
2. Problem Sets (20%)
3. Presentation (15%)
4. Midterm (15%)
5. Final (25%)

Class Participation

Our class is interactive. Hence, attendance of all classes is expected in person. If you can't attend for any reason, zoom attendance is possible with permission. Since following current events plays a significant role in developing your understanding of financial markets, questions and discussions connecting real world news to class materials are encouraged and necessary to do well in this course.

Problem Sets

The problem sets are aimed at preparing you for the midterm and final. You are free and encouraged to collaborate on these, however, everyone must have their own submission on Latte!

Midterm and Final

The midterm will be a take-home exam, due halfway through the course. The final will be cumulative, and is a take-home exam due on the last day of class. The midterm and the final will contain some longer questions related to your 'investment philosophy' and the current news discussions we will be doing during class as well. In addition to these, expect regular concept/understanding testing problems as well, akin to what you see on problem sets. Collaboration on the midterm and final is not allowed.

Presentation

Through the midterm and final, you will in part be working on developing and testing and investment strategy. You will be evaluated on presenting your investment strategy and your insights about it.

Detailed Course Outline:
The schedule is tentative and subject to change based on how we make progress.

Week 1

June 3 (Chapters 1, 2)
- Overview and Introduction
- Review of Statistical Concepts

June 4 (Chapters 3, 4, 5)
- Financial Securities
- Risk and Return
- **PROBLEM SET 1 ASSIGNED**

June 6 (Chapter 5, 6)
- Risk Preferences and Capital Allocation

Week 2

June 10 (Chapters 6, 7):
- Portfolio Selection
- Markowitz Portfolio Selection
- **PROBLEM SET 1 in Class**

June 11 (Chapters 8, 9):
- Index Models
- Capital Asset Pricing Model
- **MIDTERM ASSIGNED**

June 13 - No Class due to Shavuot

Week 3

June 17 (Chapters 10, 11):
- Arbitrage Pricing Theory
- Market Efficiency and Empirics

June 18 (Chapter 14):
- Bond Pricing / Fixed Income Securities introduction
- **MIDTERM DUE**
- **PROBLEM SET 2 ASSIGNED**

June 20 (Chapter 15, 16):
- Portfolio Investing, Real world decisions
- Term Structure of Interest Rates

Week 4

June 24 (Chapter 15, 16, 23):

- Duration, Convexity, Swaps
- Credit Ratings

June 25 (Chapter 17, 18, 19):

- Equity Valuation
- Dividend Discount Model
- **PROBLEM SET 2 DUE**

June 27 (Chapter 22):

- Futures
- **FINAL ASSIGNED**

Week 5

July 1 (Chapter 20, 21):

- Options and Option Strategies

July 2 (Chapter 25):

- Investing In International Markets / Behavioral Finance

Final Period

- **FINAL DUE & PRESENTATIONS**