

Brandeis University
Department of Economics

Econ 171
Financial Economics

Summer 2021
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TENTATIVE SYLLABUS—SUBJECT TO CHANGE

This course is a ten week asynchronous online course covering 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), the efficient market hypothesis, and fixed income markets.

Lectures will consist of covering the theory, going over in-class examples, and online discussion. Problem sets will focus on real world applications of the lecture material and will be assessed for both the accuracy and presentation quality. Students should have a basic understanding of microeconomics, statistics, and algebra (see also prerequisites below). Most of the course's activities will be asynchronous, but we will have some synchronous participation components. Finally, this course will require analysis in Microsoft excel or a similar program, and students will be expected to follow in-class examples and practice independently as a means to develop some basic proficiency.

LEARNING GOALS:

By the end of the course you will be able to:

- Explain the fundamental principles of investment in financial markets
 - how investors make investment decisions
 - what determines returns and asset valuations
- Develop quantitative models to inform decisions involving
 - capital allocation
 - fixed income securities and 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.

PREREQUISITES 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.

WEEKLY LECTURES

Students are responsible for watching the course lectures provided during each week. These lectures will closely follow the course readings, provide both "pen-and-paper" and Excel examples, and outline weekly discussion topics. Students may watch these videos as many times as they need to throughout the weeks of the course. You are advised to watch the videos in the order that they are posted online.

PROBLEM SETS (20%)

There will be four required problem sets in this course. These problem sets are designed to simulate what students might expect from a first job or internship in finance. Please read all instructions carefully and reserve some time for formatting, proofreading and clear presentation of results. **All problem sets should be completed using the “Summer analyst template” provided on latte; failure to use this template will result in a 50% deduction in the problem set grade.**

Submitted problem sets are expected to be typed and free from typos, cite any external sources of data or information, and include both the data and the Excel workbooks used to answer any questions. You are strongly encouraged to use Excel or a similar program to complete your assignments. You are also encouraged to discuss problem set questions with other students on the course discussion page.

Note that if you simply copy your answers from one of your classmates, in addition to receiving a zero on the problem set, you will be in violation of Brandeis rules on academic honesty and may not receive credit for the course. Please also be aware that I will not be able to accept *any* late submissions.

Completing problem set assignments consists of three parts:

1. Submitting a typed set of answers to each problem set using the analyst template (posted on the course latte page).
2. Producing and submitting a video tutorial of one of the problem set questions (these questions will be randomly assigned; see Tutorial Instructions for more information).
3. Participating in your assigned review group’s discussion.

PROBLEM SET TUTORIALS (20%)

Upon submitting each of your problem sets, you will be randomly assigned one section of the problem set for which you are to produce an instructional video. You are to use your Excel book (or spreadsheet software of your choice) and Zoom (or a recording program of your choice) to prepare a tutorial of your assigned problem. These videos will be used for discussion and learning in a problem set review group.

You will have approximately two days to create and submit this video tutorial as an mp4 to the instructor (specific dates to be provided within each assignment). The aim of the tutorial assignment is to deepen your understanding of the course material by teaching and explaining it to someone else. Your grade will reflect how well you do that.

Your target audience for this tutorial assignment is your classmates. You may assume that everyone in the intended audience understands the material from Econ 80a, Econ 83, and what we have covered in class. Your tutorial will be graded for its quality at the instructor’s discretion. See Tutorial Instructions on the course webpage for more information.

ONLINE DISCUSSION FORUM/CLASS PARTICIPATION (5%)

In addition to participating in problem set discussion groups, each week students are expected to both contribute to online discussion questions by mid-week and comment (two times) on other students’ contributions by the end of the week. Other activities that will be included in this grade

component are participation in the class meetings and the completion of any mandatory practice problems.

ONLINE MEETINGS

Students will be required to participate in two online class meetings in weeks 2 and 3 of the course and one one-on-one meeting with the instructor in week 7. We will meet on Tuesday, June 9, 2020 at 9am EDT and on Tuesday, June 16 at 9am EDT. You can attend these class meetings by entering my Zoom meeting room: <https://brandeis.zoom.us/j/8133530881>. Please sign in promptly and exercise good online etiquette (sign into the meeting on-time; mute your microphone unless you are speaking; raise your hand if necessary; introduce yourself before you make comments or questions, etc.).

MARKETWATCH GAME

Students will be invited to participate in a class investment game on the MarketWatch platform. Play during weeks 1-5 is dedicated to students' exploration and experimentation with different allocations. Students should practice as much as possible and take notes about which stocks and assets work well together. Students should prioritize reading the Session Project instructions to ensure this practice play informs a portfolio that is appropriate for the assignment.

During weeks 5-7, students should begin designing a strategy for the portfolio they wish to submit and present during week 10. This strategy should be partially based on what we have covered throughout the course and partially based on outside market research conducted by each student. In weeks 8-9 the game will be restarted for a class competition, and students' investment strategies will be implemented and tweaked as needed. The session project should describe the rationale for the portfolio's design and any tweaks that changed its performance during the two-week competition.

SESSION PROJECT (25%)

Each student will be required to complete a session investment project, based largely on each student's participation in the course's Marketwatch game. **In weeks 5-7, the student will design a portfolio allocation strategy and submit a Philosophy, Process and Portfolio Statement in week 7.** Students should complete a formal report that explains and justifies the strategy to a hypothetical firm's investment committee. Session projects will be submitted through Latte at the end of the course and will be subject to TurnItIn.com review. Your Final Debriefing Report will be due no later than August 8 at 12:00 PM (noon). **NOTE: NO LATE SUBMISSIONS WILL BE ACCEPTED.**

In keeping with the spirit of simulating a real-world work environment, session project grades will partially reflect how each student's strategy ranks compared to those submitted by the rest of the class. That is, the strategy and presentation that make the most compelling case and best rationale to the imaginary firm's investment committee will receive the highest rank, and so on.

REFLECTIONS (20%)

Students will be required to submit five reflection assignments that will cover both topics in the course and current events in the news. These assignments are designed to help students incorporate the course's material into their final project investment strategy and gradually organize their investment strategy's defense. Students are expected to treat the reflection assignments as

small professional writing samples, and the instructor's feedback will aim to help the student better understand the level of organization and writing quality expected in the final paper.

SESSION PROJECT PRESENTATION (10%)

In the beginning of week 10, students are required to submit a recorded presentation of their investment strategy and their Marketwatch game results from implementing such a strategy. This presentation should be uploaded onto Latte on Tuesday, August 3. You are required to watch and comment on all of your classmates' presentations by Thursday, August 5.

POLICY ON LATE SUBMISSIONS

Be advised that I will not be able to accept any late submissions of course assignments; **this includes the final session project**. In the context of an online class, this means building in some extra time for yourself to submit, in case, for example, you should face connectivity or other issues. In other words, **DO NOT WAIT UNTIL THE EXACT DEADLINE TO SUBMIT YOUR WORK**. In cases where you have difficulties with the Latte course page, I will accept work sent to my email address, so long as it is sent to me before the submission deadline.

POLICY ON CALCULATORS:

You can use any calculator you would like when solving problems on the problem sets, including scientific, programmable, graphing, or financial; however, you are encouraged to use Excel to solve your homework and online quizzes. In most cases, receipt of full credit on assignments will require you to also turn in your excel workbooks.

TEXT

The required textbook for the course is: Bodie, Kane, and Marcus (BKM) Investments 10th Ed. You may use other editions if you prefer, but the course slidedecks will assume that you are reading the 10th edition. Please also be aware that any reference to book chapters or problems will be for the 10th edition.

Each class has readings in the book associated with it, and I strongly encourage you to read these sections, to supplement each week's lectures. There will often be parts of the chapter that we do not cover in depth or skip entirely. If you are interested in learning material above and beyond the class, those sections of the book are a good place to start.

CONTACT INFORMATION

My Brandeis email address is alaski@brandeis.edu. My online office hours are Thursdays at 9am EDT via Zoom: <https://brandeis.zoom.us/j/8133530881>.

INFORMATION DISSEMINATION AND REQUIRED SOFTWARE

I will maintain a course website through the University's Latte system. You will be responsible for checking the website frequently as lectures, problem sets, and all other course materials will be posted there and available for you to download. The website can be accessed from Latte.brandeis.edu and new content for each week will be opened for access on Sundays.

For remote meetings we will be using the Zoom platform; please sign in and be punctual to the three required meetings of the course. For your end of session presentations, you will need to set up a Voicethread through the Latte website.

Most documents from the course website will be found as PDF files. To read such files you will need to have Adobe Acrobat Reader installed on your computer. In addition, many of the problem sets will require Microsoft Excel or a similar program, such as Google Sheets, LibreOffice, Numbers (for Mac users), or SoftMaker FreeOffice (Note: not all of these may have the full functionality, i.e. Solver, that MS Excel has).

SPECIAL ACCOMMODATION

If you are a student with a documented disability at Brandeis University and if you wish to request a reasonable accommodation for this class, please see me right away. Please keep in mind that reasonable accommodations are not provided retroactively.

ACADEMIC HONESTY

You are expected to be honest in your academic work. The University policy on academic honesty is distributed annually as section 4 for the Rights and Responsibilities handbook. Students will be required to submit work to TurnItIn.com software to verify originality. **Using answer sites such as Chegg and Course Hero are a violation of this policy.** I will enforce a zero-tolerance policy toward cheating and plagiarism. Instances of alleged dishonesty will be forwarded to the Director of Academic Integrity for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University. Citation and research assistance can be found at LTS-Library guides. If you have any questions about my expectations, please ask. Academic Dishonesty will not be tolerated and will be rigorously prosecuted.

Please note that all assignments should be submitted to the University’s Turnitin.com service; accepting the terms of this service implies that you are responsible for the content you submit.

COURSE OUTLINE

Week	Topic	Assignments
1	Overview of course, Review of statistical and mathematical concepts	PS 1 assigned Reflection 1 assigned
2	Introduction to Financial Securities, Review of Financial Arithmetic	Reflection 1 due
3	Risk and Return, Risk Preferences and Capital Allocation	PS 1 due, PS 1 tutorial and group response due PS 2 assigned Reflection 2 assigned
4	Capital Allocation, Portfolio Selection	Mandatory practice problems PS 2 due, PS 2 tutorial and group response due Reflection 2 due PS 3 assigned
5	Markowitz Portfolio Selection	Reflection 3 assigned Portfolio Philosophy Outlines due Mandatory practice problems
6	The Single Index Model	PS 3 due, PS 3 tutorial and group response due Reflection 3 due PS 4 assigned

7	Capital Asset Pricing Model (CAPM)	Philosophy, Process and Portfolio Statement due
8	Arbitrage Pricing Theory, Market Efficiency	Reflection 4 assigned
9	Fixed Income Securities, Bond Pricing	PS 4 due, PS 4 tutorial and group response due Reflection 4 due
10	Project Presentations and Feedback	Final Virtual Stock Exchange Debrief Presentation Final Virtual Stock Exchange Debrief Report