

FIN 520 Financial Economics I Module 2, 2022-2023

Course Information

Instructor: Yunus Topbas

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Teaching Assistant: TBA

Classes: Mon & Thu 13:30-15:20 @ PHBS Building, Room TBA

Course Website: TBA

1. Course Description

Course Overview: This course is an introduction to asset pricing in discrete time. There are three main parts of the course. The first part is theoretical. We will introduce mean-variance analysis and factor pricing models and then move on to more general settings to study choice under uncertainty. You will learn how to apply some of the theories in empirical settings. In the second part, we will examine information and efficiency in stock markets. The third part is a brief introduction to derivative pricing (time permitting).

Prerequisites: Some knowledge of Microeconomics (e.g., optimization problems) is essential to follow the course and succeed in assignments and exams. To this end, the course has a prerequisite of one master-level course in Microeconomics (e.g., ECON 510). It is also acceptable if you will be taking Microeconomics together with this course. You will also need to run some regressions in the assignments, but I will go over regression analyses in the first week. It will be enough for you to follow the course.

2. Textbooks and Reading Materials

There is no assigned textbook for the class, and I do not plan to follow one specific text. However, I recommend you get access to at least one textbook for your reference. Here is an incomplete list of reference books that you might find helpful:

- 1. Back, K. (2010). Asset pricing and portfolio choice theory. Oxford University Press.
- 2. Bali, T. G., Engle, R. F., & Murray, S. (2016). Empirical asset pricing: The cross section of stock returns. John Wiley & Sons.
- 3. Campbell, J. Y. (2017). Financial decisions and markets: a course in asset pricing. Princeton University Press.
- 4. Cochrane, J. (2005). Asset pricing: Revised edition. Princeton university press.
- 5. Ferson, W. (2019). Empirical asset pricing: Models and methods.

I'll also post class handouts as we go along. Other readings will be indicated in the handouts.

3. Assessment/Grading Details

You will have one midterm and one final exam. You will have an in-class midterm in the 5th or 6th week. The exact midterm date will be announced in the second week of the module. The final exam is scheduled on **Jan 3**, **2023**, **at 13:30** – **15:30**. In addition to these exams, there will also be a trading exercise.

Midterm:	%35
Final Exam:	%40
Trading Exercise:	%25

<u>TD Bank Virtual Stock Market Game Rules</u>: Students practice trading stocks with real prices. Each student receives an amount of virtual dollars in a virtual brokerage account and simulates managing a portfolio by buying and selling stocks at real-time prices. This trading exercise has two parts. In the first part, you will be asked to trade stocks using the methods that you learn in the class. If you apply the methods correctly, you get full credit from this part regardless of your portfolio performance. In the second part, you are free to use any method you want. Your grade from this part depends on your portfolio performance. I will share more details about the breakdown of points when we start trading exercise.

Academic Honesty and Plagiarism

A student's effort and credit need to be recognized through class assessment. Credits earned for a student's work due to efforts done by others are unfair. Deliberate dishonesty is considered academic misconduct, which includes plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain grades, honors, awards, or professional endorsement dishonestly; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

All assessments are subject to academic misconduct checks. Misconduct checks may include reproducing the assessment, providing a copy to another faculty member, and/or communicating a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism-checking service may be kept in its database for future reference purposes. Where a violation is suspected, penalties will be implemented. The penalties for academic misconduct may include a deduction of honor points, a mark of zero on the assessment, a fail grade for the whole course, and a reference of the matter to the Peking University Registrar. For more information on plagiarism, please refer to PHBS Student Handbook.

4. Diversity and Inclusion

We must treat every individual with respect and share a commitment to diversity and equity. Diversity is fundamental to building and maintaining an equitable and inclusive campus environment. In this course, we respect and embrace the unique experiences that brought each person here, including but not limited to race, color, national origin, language, sex, disability, age, sexual orientation, gender identity, religion, background, learning styles, ways of expression, or academic interests. We acknowledge our imperfections while we also fully commit to the work, inside and outside of our classrooms, of removing barriers to education so that everyone may participate fully in the community. I encourage anyone who experiences or observes unfair or hostile treatment based on identity to speak out for justice and support, within the moment of the incident or after the incident has passed.

5. Tentative Topics and Schedule

Part I: Introductory Asset Pricing Models (Week 1 – 6)

- **1.1.** Mean-variance Analysis and The Capital Asset Pricing Model (CAPM)
- **1.2.** Arbitrage Pricing and Multifactor Models
- 1.3. Theory of Choice Under Uncertainty: Expected Utility and Portfolio Choice
- **1.4.** State Prices and Pricing Contingent Claims

Part II: Information and Efficiency (Week 7 – 8/9)

- **2.1.** Efficient Market Hypothesis
- **2.2.** Price Discovery and Price Informativeness

Part III: Derivatives (Week 9) (time permitting)

3. Introduction to Options and Other Derivates

Note 1: Course outline is subject to minor changes along the progress of the course. The midterm exam will cover 1.1. to 1.3 or 1.1. to 1.4 depending on the actual progress. The final exam will be cumulative and cover all topics.

Note 2: Classes on Dec 19 will be moved to Dec 21.