

Economics 4220: Financial Economics
Gregory Besharov

Financial economics covers the theory and practice of asset valuation and portfolio formation. Topics will include financial instruments such as bonds, equities, options and their hybrids, and the nature of investment vehicles such as mutual funds and hedge funds. Students will learn about the sources and measures of security and portfolio risk as well as learn how to how to construct optimal portfolios. Some of the questions we will ask are: What does it mean to say that markets are efficient? What are the proper uses of beta? Do some investors consistently generate positive alpha? There will be discussions of current issues as well as readings from and about noteworthy practitioners.

Prerequisites

Econ 3030 Intermediate Microeconomic Theory and Econ 3040 Intermediate Macroeconomic Theory, or permission of the instructor.

Texts

Required for this class is access to the Connect system for *Investments*, eleventh edition, by Bodie, Kane, and Marcus (BKM hereafter). Recommended but not required is a subscription to the *Wall Street Journal*. Links to additional readings will be posted on the course website.

Office Hours

My office hours will be held in Uris 484 on Wednesdays from 10:45 to 11:45 and 1:30 to 2:30, and by appointment if you cannot make those times. If you would like to set up an appointment, please send me an email at gb293@cornell.edu listing three or four times you are available over the following several days so that I can choose one. If you would like me to write a letter of recommendation for you for jobs, graduate school, or the like, please do stop by office hours so that my recommendation can be both more substantive and personal. There will be additional office hours before examinations. The TA for the course is Shaoshu Li. TA office hours will be on Wednesday from 12:00 to 1:30 and Thursday from 6:00 to 7:30pm.

Note to students with disabilities: If you have a disability-related need for reasonable academic adjustments in this course, provide me with an accommodation letter from Student Disability Services. Students are expected to give two weeks' notice of the need for accommodations. If you need immediate accommodations, please arrange to meet with me within the first two class meetings.

Grading

Grading is based on pre-class assignments, problem sets, two preliminary examinations, and a final examination. Additional credit for class participation may also be awarded.

The pre-class assignments (PCAs) are administered through the Connect system. The purpose of these assignments is to prepare you for class so they are due in the morning before class. Because of start of semester issues, the PCAs for the first chapters are due in the second week of class. There are 22 PCAs, and they will be worth 6% of the course grade. There are an additional 6 PCAs that are optional. Because this is the first year I am using the PCAs, I do not know how their completion will be reported to me by the Connect system. Once I do, I will provide more information about how they will enter the grade calculation. Also, to be clear for academic integrity reasons, you are free to work on these problems together but I strongly suggest you do them on your own.

The problem sets are assigned on a chapter basis and are administered through the Connect system. The 20 problem sets constitute 10% of the course grade. You are encouraged to work together on them. I understand that other commitments, illness, or personal issues may interfere with completion of an assignment. Thus, your lowest three grades will be dropped. While the Connect problem sets are an excellent way to learn the course material, students often have difficulties transferring their ability from the online problems to the written format of examination questions since calculators are not allowed. The problems done in class should help in this regard.

The first preliminary examination will be given in class on October 3rd. The second preliminary examination will be given in class on November 9th, with an emphasis on material since the first preliminary examination. Each preliminary examination will be worth 23% of the class grade. There will be no make-up examinations. If you have an excused absence, you must let me know in advance that you will not be taking the examination and you also must provide documentation. Additional weight will be put on the other preliminary examination and on the final in cases of excused absence.

The final examination will be on December 6th from 2:00 to 4:00, and it is 38% of the course grade. *If you know you will be unable to take the final examination at that time, you should not enroll in the class.* The final examination will cover the entire course, with greater weight on material since the second preliminary examination. *Please note that students are expected to remain in the examination room during all examinations.* If you have a medical or other reason why you are not able to do so, please let me know as soon as possible.

While the exams are written with the expectation that at least a few students will answer all of the questions correctly, typically many students receive raw scores that are low. This should not necessarily be an issue of concern. The raw scores are converted to standard numeric grades that are used to calculate course grades, and it is only the converted scores which matter. The converted scores will be posted on the course website

throughout the semester, so you will be able to calculate how you are doing. Final grades follow the 100 point scale of A 93-100, A- 90-93, B+ 87-90, B 83-87, B- 80-83, *etc.*

Category	Percentage of Grade
Pre-Class Assignments	6%
Problem Sets	10%
First Preliminary Examination	23%
Second Preliminary Exam	23%
Final Examination	38%

University Policy, Academic Integrity and Code of Conduct

Together with all the members of this Department, I respect and uphold University policies and regulations pertaining to racial or ethnic discrimination, sexual harassment, assistance available to handicapped, visually and/or hearing impaired students, the observation of religious holidays, and plagiarism. All students are advised to become familiar with the respective University regulations and are encouraged to bring any questions or concerns to my attention.

This course follows both Cornell's Code of Academic Integrity (<http://cuinfo.cornell.edu/Academic/AIC.html>) and Cornell's Code of Campus Conduct (<http://www.dfa.cornell.edu/treasurer/policyoffice/policies/volumes/governance/campuscode.cfm>). Violations will be taken seriously. Students tend to be most tempted to violate these codes when they are concerned about their course grade. If you are concerned to that degree, please talk to me or an academic advisor.

Please note that videotaping, photographing, audiotaping, or otherwise making any picture or sound recording of an instructor is not permitted without the instructor's written consent. Failure to comply with this rule is a violation of Cornell's Campus Code of Conduct. Moreover, students are not authorized to replicate, reproduce, copy or transmit such materials, or "derivative" materials, including class notes, for sale or general distribution to others without the written consent of the faculty, academic staff member, or class participant who is the original source of such materials; and that Violations of the above constitute academic misconduct as described in the Code of Academic Integrity.

Course Outline

I. Introduction

Lecture 1 (8/22) Syllabus, Main Questions, Assets

Reading: Chapter 1

Lecture 2 (8/24) Asset Classes, Indexes, Capital Structure, Options

Readings: Chapter 2 and “On the Efficiency of the Financial System”

Chapter 1 PCA due 8/28.

Lecture 3 (8/29) Securities Markets, Quants, Margin

Reading: Chapter 3, “The Quants”

Chapters 2-3 PCA due 8/29.

Lecture 4 (8/31) Historical Risk and Return

Reading: Chapters 4-5 and “The Shadow Banking System and Hyman Minsky’s Economic Journey”

Chapters 4-5 PCA due 8/31.

II. Bonds and Options

Lecture 5 (9/5) Bond Prices and Yields

Reading: Chapter 14

Chapter 14 PCA due 9/5.

Chapters 1, 2 PS due 9/6.

Lecture 6 (9/7) Term Structure and Yields

Chapter 15 PCA due 9/7.

Chapters 3, 4 PS due 9/7.

Lecture 7 (9/12) Duration and Immunization

Reading: Chapter 16

Chapter 16 PCA due 9/12.

Chapter 5, 14 PS due 9/13.

Lecture 8 (9/14) Managing Bond Portfolios

Reading: HP Pension

Lecture 9 (9/19). Option Types and Expiration Value

Reading: Chapter 20, “Dividend Trade”

Chapter 20 PCA due 9/19

Chapters 15 PS due 9/20.

Lecture 10 (9/21): Option Valuation, Binomial Model

Reading: Chapter 21

Chapter 21 PCA due 9/21.

Chapter 16 PS due 9/21.

Lecture 11 (9/26): Black-Scholes and Applications

Chapter 20 PS due 9/27.

Lecture 12 (9/28) Options and Review

Readings: "MIT Remarks"

Chapter 21 PS due 9/28.

Lecture 13 (10/3) Preliminary Examination I

III. Portfolio Theory

Lecture 14 (10/5) Risk Aversion and Portfolios

Reading: Chapter 6

Lecture 15 (10/12) Optimal Complete Portfolios

Chapter 6 PCA due 10/12

Lecture 16 (10/17) Optimal Two-Asset Portfolios

Reading: Chapter 7

Chapter 7 PCA due 10/17.

Chapter 6 due 10/18.

Lecture 17 (10/19) Optimal Multi-Asset Portfolios

IV. Models of Risk and Return

Lecture 18 (10/24) Index Models

Reading: Chapter 8

Chapter 8 PCA and Chapter 27 PCA (optional) due 10/24.

Chapter 7 due 10/25.

Lecture 19 (10/26) CAPM
Reading: Chapter 9
Chapter 9 PCA due 10/26.

Chapter 8 PS due 10/26.

Lecture 20 (10/31) APT, Multifactor Models, and Review
Reading: Chapter 10
Chapter 10 PCA and Chapter 13 PCA (optional) due 10/31.

Chapter 9 due 11/1.

V. Market Efficiency

Lecture 21 (11/2) Efficient Market Hypotheses
Reading: Chapter 11, “Tapping the Brakes”
Chapter 11 PCA due 11/2.

PS 10 due 11/2.

Lecture 22 (11/7) Behavioral Finance and Technical Analysis
Chapter 12 PCA due 11/7.

Lecture 23 (11/9) Preliminary Examination II

VI. Equity and Futures Valuation or Using Risk-Adjusted Discount Rates

Lecture 24 (11/14) Industry Analysis and Equity Valuation
Reading: Chapter 17.6, Chapter 18
Chapter 17 PCA (optional), Chapter 18 PCA, and Chapter 19 PCA (optional) due 11/14.

Lecture 25 (11/16) Futures and Parity Relationships
Reading: Chapters 22, 23.1-23.3
Chapter 22, 23 PCAs due 11/16.

Chapters 18 PS due 11/16.

VII. Portfolio Management and Performance Evaluation

Lecture 26 (11/21) Performance Ratios, Style Analysis, and Evaluation
Reading: Chapter 24, “Assessing Performance Records,” “Winning It by Trimming It”
Chapter 24 PCA and Chapter 25 PCA (optional) due 11/21.

Chapters 22, 23 PS due 11/22.

Lecture 27 (11/28) Hedge Fund Strategies, Styles, Performance, and Fees

Reading: Chapter 26

Chapter 26 PCA and Chapter 28 PCA (optional) due 11/28

Chapters 24 and 26 PS due 11/29.

Lecture 28 (11/30) Review

Final Examination December 6th 2:00 to 4:00 pm.