

# Financial Economics (Econ 40354)

University of Notre Dame

Fall 2020

Professor Michael Pries

Tues/Thurs 8:00-9:15pm, 125 Eck Visitors Center

## Overview

This course is the first required course in the Concentration in Financial Economics and Econometrics (CFEE). The course is divided roughly into five sections. First, we will cover some “building blocks”: the types of financial institutions and the types of financial instruments that exist in modern financial markets, as well as the purposes that they serve. Second, we will learn some basic valuation concepts for stocks and bonds. Third, we examine the financial decisions of households (and other “investors”), broadly known as *portfolio theory*. Fourth, we consider the Capital Asset Pricing Model (CAPM), which is the benchmark model of how the prices (or, similarly, the rates of return) of assets are determined in equilibrium (The second required course in the CFEE sequence, Asset Pricing Theory, will consider equilibrium models in much greater depth.) Finally, we learn the fundamentals of “corporate finance”: the decisions that firms make regarding which real investment projects to undertake, and the decisions that firms make regarding which securities to sell in order to obtain the needed funding.

While the primary focus will be on theory/models, we will also look at data and evidence to help motivate our theories or to assess competing theories. Along the way, we will also try to learn some practical things: where to find financial information, how to actually buy and sell stocks and bonds, etc.

In terms of pre-requisites, you ideally should have already taken intermediate micro and intermediate macro. Because our models will require mathematical tools, you should also feel comfortable with elementary differential calculus, basic probability and statistics, and algebra.

## Contact information & Office Hours

Email: [mpries@nd.edu](mailto:mpries@nd.edu)  
Office: 3034 Jenkins-Nanovic Hall  
Phone: 574-631-3046  
Website: <http://sites.nd.edu/mpries/>

I will hold office hours, or rather “Zoom hours,” on Tuesdays between 11:00 a.m. and noon. Just join the Zoom session at my personal Zoom ID: 782 593 6216. If this time is not convenient, or if you need a private Zoom session, you may request a different time to meet with me. Alternatively, if you need an in-person meeting, please email to request a time to meet. Outside of office hours, if you have questions about the course and need to contact me, I prefer that you use email to do so. I will try to respond promptly.

I will use a **Sakai** page to disseminate problem sets and lecture notes/Powerpoints. I will also use the Sakai gradebook feature to record grades.

I will send emails/messages via the Sakai messaging service to communicate with the whole class. Of course, all important announcements will be made in class as well, but you should check your email regularly throughout the semester to keep informed about reminders and clarifications.

## Teaching Assistant

Rob Scott, who took this class last year, will serve as teaching assistant for the class. He will hold “office hours” once a week at a time and place to be announced in class. He will also help me in grading problem sets and exams.

## Covid-19 stuff

If you are required to self-quarantine due to Covid-19 issues, you should be able to attend lectures virtually via Zoom. The Zoom session ID for this class is **930 7237 0010**. *I also intend to record the lectures*, and if successful the recordings will be available via the Panopto tab in Sakai. I anticipate, however, that the in-person experience will be superior to the Zoom/recorded version of the class, so please make every attempt to attend every lecture when possible.

The seating arrangement for the class will be fixed starting on Tuesday, August 18. Until then, please at the start of each lecture go to [here.nd.edu/seat](https://here.nd.edu/seat) to record your seat.

## Textbooks / Readings

We will utilize two different textbooks. The new editions of both of them are extremely expensive (~\$250 each), so I will utilize (as listed below) the edition prior to the latest edition. As such, you should be able to find used (or even new) copies online for about \$50 (or less). You would probably also be fine using even earlier editions. The two textbooks are:

*Investments*, by Zvi Bodie, Alex Kane, and Alan Marcus. McGraw-Hill. 10<sup>th</sup> edition (2013). (ISBN 13: 9780077861674)

*Corporate Finance*, by Jonathan Berk and Peter DeMarzo. Pearson. 3<sup>rd</sup> Edition (2014). (ISBN 13: 9780132992473)

In addition to the textbooks, I will also occasionally assign articles (from websites, newspapers, magazines, or academic journals) that I will expect you to read.

# Requirements

## *Class Participation*

Attendance is mandatory (see notes above about “attending” via Zoom if necessary). Unless you have a legitimate excuse, you must attend class, arrive on time, and not leave early. Before coming to class, you are required to have read the assigned material so that you can respond to questions related to the readings. My lectures will be much more informative if you are already familiar with the material. If I feel that students are not prepared for class, I will give unannounced quizzes that will count for 5% of the final grade for the course (replacing 5 percentage points otherwise assigned to the midterms).

## *Problem Sets*

There will be nine problem sets—three before each exam. Combined, they will count for 20% of your final grade. You will have the opportunity to drop your lowest score, so that the remaining eight will each count for 2.5% of your final grade.

You may work (indeed, I encourage you to do so) in groups of up to four students on the homework assignments. The problem sets will be made available on Sakai, and I will ask you to submit a scanned copy of your solutions via Sakai as well. If you work in a group, you can turn in one jointly written/typed homework, and the problem sets will have clear instructions at the top about how to indicate the names of the students associated with a particular submission. All group members will receive the same grade. The problem sets are the best preparation for the exam so it is in your interest to actively participate in solving each problem—free-riders will suffer come exam time.

The problem sets will at times be difficult. After struggling with them first on your own, and then with your study group, the TA will be available during his office hours to help you and your group work through homework questions. He has taken the course before and understands the material really well. He can guide you through the hard parts, but won't give answers.

## *Midterm Exams*

There will be two midterm exams (dates listed below). The current plan is to hold them in the regular classroom, during the regular class meeting time. However, it is possible that I will switch to exams that are administered and completed online. Each midterm exam will count for 25% of the final grade.

## *Final Exam*

The final exam is cumulative (but weighted toward the material at the end) and will count for 30% of the final grade. In accordance with the University exam schedule, it will be given Tuesday, Nov. 17<sup>th</sup>, from 10:30am to 12:30pm in a location to be named later. (As with the midterms, the current plan is to administer the final exam in person, but it is possible that I will

switch to an online final exam.) If you have a conflict with another final exam, please consult with me as early as possible, and we will make arrangements in accord with university guidelines.

## Class Policies

### *Honor Code*

Notre Dame students are expected to abide by Academic Code of Honor Pledge: “As a member of the Notre Dame community, I will not participate in or tolerate academic dishonesty.” Students must not give or receive aid on exams. This includes, but is not limited to, viewing the exams of others, sharing answers with others, and making unauthorized use of books or notes while taking the exam.

### *Make-up Exams*

You should make *every* effort to avoid needing a make-up exam. When a make-up exam is warranted (according to university guidelines), you must notify me of your excuse *without delay*.

If you also miss the make-up midterm exam (again for legitimate causes), then the weight that would have been given to that exam will be assigned to the weight used for your final exam. If you miss a midterm exam and are ineligible for a make-up exam, you will receive a zero score. In this case, you cannot choose to have the other exam weighted more heavily in order to adjust for the missed exam.

### *Extra Credit*

There will be no opportunities for extra credit.

### *Re-grades*

If you feel that your exam or problem set was incorrectly or unfairly graded, you have one week after the class in which it is returned to submit it for a re-grade. However, when an exam or problem set is turned in for a re-grade, the entire exam will be re-graded and the scores for individual questions can be either *increased or decreased*.

## Course Outline

We will cover topics in roughly the following order. The readings are in parenthesis (BKM stands for the Bodie/Kane/Marcus textbook, and BD stands for Berk and DeMarzo)

- i) “Building blocks”: institutions, securities, and how they trade (BKM 1-4)
- ii) Present values and asset valuation
  - a. Absence of arbitrage and valuation (BD 3)
  - b. Time value of money and present values (BD 4)
  - c. Interest rates (BD 5)
  - d. Valuation of debt/bonds (BD 6)
  - e. Term structure of interest rates
  - f. Valuation of equity (BD 9)
  - g. Options (BD 20 or BKM 20)
- iii) Portfolio theory
  - a. Risk and return (BKM 5)
  - b. Capital allocation to risky assets (BKM 6)
  - c. Optimal risky portfolios—Markowitz Model (BKM 7)
- iv) Equilibrium asset pricing models
  - a. CAPM: Capital Asset Pricing Model (BKM 9)
  - b. “Factor” models (BKM 8, 10)
- v) Corporate finance
  - a. Types of firms (BD 1)
  - b. Financial Statements (BD 2)
  - c. Capital budgeting (BD 7, 8)
  - d. Capital structure: Modigliani-Miller (MM) proposition (BD 14)
  - e. Capital structure: departures from MM (BD 15-17)

## Important Dates

(Please note that the following due dates for problem sets are subject to revision.)

Aug 11 (Tues)	First class meeting
Aug 24 (Mon)	Problem set 1 due
Aug 31 (Mon)	Problem set 2 due
Sep 7 (Mon)	Problem set 3 due
Sep 10 (Th)	1st midterm
Sep 28 (Mon)	Problem set 4 due
Oct 5 (Mon)	Problem set 5 due
Oct 12 (Mon)	Problem set 6 due
Oct 15 (Th)	2 <sup>nd</sup> midterm
Oct 26 (Mon)	Problem set 7 due
Nov 2 (Mon)	Problem set 8 due
Nov 12 (Th)	Problem set 9 due (last class meeting)
Nov 17 (Tu)	Final exam (10:30am-12:30pm, location TBA)