

DARTMOUTH COLLEGE  
Department of Economics

Economics 36  
Theory of Finance

Professor Samwick  
Fall 2023

### **Course Description:**

Economics 36 is an introduction to the fundamental concepts of financial theory and the methods that are used to understand financial markets and corporate finance. Underlying all of finance is the impact of time and uncertainty on the valuation of economic opportunities. Topics to be discussed include capital budgeting decision of firms, portfolio theory, financial market efficiency, option pricing, and problems of asymmetric or incomplete information.

*Prerequisites:* Economics 10, 21, and 26; good quantitative skills

This is an advanced course, designed to combine the material from the several prerequisites into a deep knowledge base that prepares students for the original research they will conduct in Economics 66. It is a step up in mathematical rigor and economic analysis and should be your highest academic priority this term.

### **Instructors and Office Hours:**

Professor:

- Andrew Samwick, Office Hours by Zoom, using Calendly to schedule appointments, <https://calendly.com/asamwick>, 15-minute appointments are available any weekday from 2 – 5 p.m. when I am not otherwise busy. Please email in advance to cancel any meeting that you are no longer able to attend.

Teaching Assistant:

- Hoang T. Nguyen '24, Office Hours and contact information will be posted. The TA is available to review problem set and exam solutions and to provide assistance with lecture materials, readings, and problem sets.

### **Class Meetings:**

Class Meetings: Lectures will occur in the 9L (MWF 8:50 a.m. – 9:55 a.m., Carson L01) and 10 (MWF 10:10 – 11:15 a.m., Carson L02) class periods. Please request permission in advance to attend a class meeting for the period other than the one to which you are assigned.

X-Periods: We will make occasional use of the X-periods this term (Th 9:05 – 9:55 a.m. or 12:15 – 1:05 p.m.). Please see the Course Schedule at the end of this document.

## Academic Rigor:

You should expect to come to every class prepared to learn and to commit significant time outside of class to master the material and complete the assignments. You will be graded according to your mastery of the material as reflected on your assignments, as indicated in the ORC's [Scholarship Ratings](#). Consistent with grading policies in the Economics Department, the median grade for this course is expected but not guaranteed to be a B+.

## Course Assignments and Grading:

Problem Sets: There will be six graded problem sets during the term. Grades will range from 0 – 4, based primarily on good faith attempts to solve each problem and secondarily on the accuracy of the solutions.

All problem sets will be uploaded to Canvas as Word, Excel, or PDF files only. (Illegible handwriting will not be graded.) Students may work in groups of up to 3 students. All students must submit their own problem set solution files and must acknowledge collaborators at the top of the files that are turned in. Problem sets are due by 9 a.m. on the following days: **9/19, 9/28, 10/13, 10/20, 11/02, 11/13.**

Exams: There will be midterm exams held in class on **October 2** and **October 25** and a final exam scheduled for **Friday, November 17, at 11:30 a.m.** (the Joint Econ B [period](#)). All students are expected to take the exams on the scheduled dates at the scheduled times. Any student requesting to do otherwise must e-mail a request by the end of class on **September 18.**

Course Grading: For students who turn in all assignments, the course grade is determined as follows: 2 in-class midterms, 20% each; 6 problem sets, 24% total; cumulative final exam, 36%.

It has been my experience in teaching Economics 36 for nearly 3 decades that students underestimate the expected level of mastery on exams. Mastery includes working efficiently under time pressure, avoiding careless errors, and applying class concepts in new contexts. Diligent students who have done poorly on the first midterm have redoubled their efforts and earned high grades on the final and in the course.

Because this underestimation has gotten worse over time, I now offer the following option for reweighting midterm exam grades. If a student does better on the final exam than on a midterm exam, then 10 percentage points of the weight on that midterm exam can be moved to the final exam. For example, a student who does better on the final than on both midterms will have the exams weighted 10-10-56. A student who does better on the final exam than the first midterm only will have the exams weighted 10-20-46.

## **Academic Honor Principle:**

The faculty, administration, and students of Dartmouth College acknowledge the responsibility to maintain and perpetuate the principle of academic honor, and recognize that any instance of academic dishonesty is considered a violation of the [Academic Honor Principle](#).

Please see Dartmouth's Community Standards and Accountability [page](#). For this course, any student giving or receiving assistance during an exam violates the Academic Honor Principle. Collaboration on problem sets is permitted as described above.

## **Religious Observances:**

Dartmouth has a deep commitment to support students' religious observances and diverse faith practices. Some students may wish to take part in religious observances that occur during this academic term. If you have a religious observance that conflicts with your participation in the course, please meet with me as soon as possible—before the end of the second week of the term at the latest—to discuss appropriate course adjustments.

## **Student Accessibility and Accommodations:**

Students requesting disability-related accommodations and services for this course are required to register with Student Accessibility Services (SAS; [Apply for Services webpage](#); [student.accessibility.services@dartmouth.edu](mailto:student.accessibility.services@dartmouth.edu); 1-603-646-9900) and to request that an accommodation email be sent to me in advance of the need for an accommodation. Then, students should schedule a follow-up meeting with me to determine relevant details such as what role SAS or its [Testing Center](#) may play in accommodation implementation. This process works best for everyone when completed as early in the quarter as possible. If students have questions about whether they are eligible for accommodations or have concerns about the implementation of their accommodations, they should contact the SAS office. All inquiries and discussions will remain confidential.

Specifically, I am requesting that you initiate this registration process before the end of the second week of class, **Friday, September 22**.

## **Consent to Recording:**

*Consent to recording of course meetings and office hours that are open to multiple students:*

By enrolling in this course, you are agreeing to the following statements:

- a) I affirm my understanding that the instructor may record this course and any associated meetings open to multiple students and the instructor, including but not limited to scheduled and ad hoc office hours and other consultations, within any digital platform, including those used to offer remote instruction for this course.

- b) I further affirm that the instructor owns the copyright to their instructional materials, of which these recordings constitute a part, and my distribution of any of these recordings in whole or in part to any person or entity other than members of the class without prior written consent of the instructor may be subject to discipline by Dartmouth up to and including separation from Dartmouth.

*Consent to One-on-One Recordings:*

By enrolling in this course, you are agreeing to the following statement:

I hereby affirm that I will not make a recording in any medium of any *one-on-one meeting with the instructor or another member of the class or group of members of the class* without obtaining the prior written consent of all those participating, and I understand that if I violate this prohibition, I will be subject to discipline by Dartmouth up to and including separation from Dartmouth, as well as any other civil or criminal penalties under applicable law. I understand that an exception to this consent applies to accommodations approved by SAS for a student's disability, and that one or more students in a class may record class lectures, discussions, lab sessions, and review sessions and take pictures of essential information, and/or be provided class notes for personal study use only.

### **Required Readings:**

Textbook: Ross, Stephen A., Randolph W. Westerfield, Jeffrey Jaffe, and Bradford D. Jordan. *Corporate Finance*. 13th ed. (New York: McGraw Hill, Inc., 2021). [Chapters marked as R# on Course Outline]

McGraw-Hill has several rental and purchase options, available [here](#). Dartmouth's library has access to 3 digital copies of this textbook, available [here](#). Note that if you are off campus, you may need to use the [Dartmouth VPN](#) to access library materials and the journal articles below.

Journal Articles: [Marked as J# on Course Outline, Available on Dartmouth network computers at the specified URLs]

[1] Fama, Eugene F. and Kenneth R. French. "The Capital Asset Pricing Model: Theory and Evidence," *Journal of Economic Perspectives*, Vol. 18, No. 3 (Summer 2004): 25 – 46. <https://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330042162430>

[2] Hart, Oliver and Luigi Zingales. "The New Corporate Governance," *University of Chicago Business Law Review*, Vol. 1, No. 1 (Summer 2022): 195 – 216. <https://businesslawreview.uchicago.edu/2022/10/31/the-new-corporate-governance/>

[3] Samwick, Andrew A. and Sophie Wang. "Corporate Social Responsibility and Voting over Public Goods," National Bureau of Economic Research, Working Paper No. 31633 (August 2023). <https://www.nber.org/papers/w31633>

[4] Shleifer, Andrei and Lawrence H. Summers. “The Noise Trader Approach to Finance,” *Journal of Economic Perspectives*, Vol. 4, No. 2 (Spring 1990): 19 – 33. <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.4.2.19>

[5] Bikhchandani, Sushil, David Hirshleifer, and Ivo Welch. “Learning from the Behavior of Others: Conformity, Fads, and Informational Cascades,” *Journal of Economic Perspectives*, Vol. 12, No. 3 (Summer 1998): 151-170. [OPTIONAL] <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.12.3.151>

[6] Bernheim, B. Douglas and Adam Wanzel. “A Tax-Based Test of the Dividend Signaling Hypothesis,” *American Economic Review*, Vol. 85, No. 3 (June 1995): 532 – 551. <http://www.jstor.org/stable/2118186>

[7] Ritter, Jay R. “Equilibrium in the Initial Public Offerings Market,” *Annual Review of Financial Economics*, Vol. 3 (2011): 347 – 374. <http://www.annualreviews.org/doi/pdf/10.1146/annurev-financial-102710-144845>

[8] French, Kenneth R., et al. *The Squam Lake Report: Fixing the Financial System*. Princeton University Press, 2010. [[Amazon](#)] [[Dartmouth Library](#)]

Additional Readings: There may be additional short readings from time to time.

Lecture slides, any lecture recordings, and problem sets are available after the relevant class periods at the course’s Canvas [site](#).

## Course Schedule:

	Date	Topic	Readings (to be done in advance)
M	9/11	Introduction	R 1 (& 2 & 3)
W	9/13	The Present Value Relationship	R 4 (& 5 & 6)
Th*	9/14	Valuing Bonds	R 8
F	9/15	Valuing Bonds (Continued)	R 25.6
M	9/18	Valuing Stocks	R 9
W	9/20	Portfolio Theory	R 10 & 11.1-11.6
F	9/22	The Capital Asset Pricing Model	R 11.7-11.9
M	9/25	CAPM (Continued)	J 1
W	9/27	CAPM Tests and Alternatives	R 12
F	9/29	Catch-up and Review for Midterm	
M	10/02	<b>MIDTERM EXAM</b>	
W	10/04	Efficient Markets	R 14
Th*	10/05	ESG and CSR	J 2, J 3
F	10/06	<b>NO CLASS</b>	
M	10/09	Noise Trading (& Herd Behavior)	J 4 (& J 5)
W	10/11	Dividends	R 19
Th*	10/12	Tests of Dividend Models	J 6
F	10/13	Financing Decisions and Raising Capital	R 20, J 7
M	10/16	Capital Structure	R 13, 16
W	10/18	Capital Structure (Continued)	R 17
F	10/20	<b>NO CLASS</b>	
M	10/23	Catch-up and Review for Midterm	
W	10/25	<b>MIDTERM EXAM</b>	
F	10/27	Financial Distress	R 30
M	10/30	Financial Crises, Part I	R 10.8
W	11/01	Financial Crises, Part II	J 8
F	11/03	<b>NO CLASS</b>	
M	11/06	Understanding Options	R 22.1-22.7
W	11/08	Simple Option Pricing	R 22.8-22.11
F	11/10	More Complicated Option Pricing	R 23 (and 24)
M	11/13	Catch-up and Review for Final Exam	
F	11/17	<b>FINAL EXAM</b>	