

# **Behavioral Finance**

Syllabus (*updated 12/3/2022*)

**SUBJECT TO CHANGE**

**Term:** Spring 2023

Professor Marius Guenzel

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Office hours: Mondays, 5:15-6pm ET via Zoom (link on Canvas)

## **Teaching Assistants:**

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Prerequisites: FNCE 100 required.

Over the past several decades, the field of finance has developed a successful paradigm based on the notions that investors and managers were generally rational and the prices of securities were generally “efficient.” However, recent theoretical and empirical research has shown this paradigm to be insufficient to describe various features of actual financial markets and firm behavior. In this course, we will use insights from behavioral economics and psychology as well as other social sciences and more realistic economic settings to guide and develop alternative theories of financial market behavior and firm decision-making, while relying on the analytical and quantitative methods common to finance. We will examine how the insights of behavioral finance complement the traditional paradigm and shed light on investors' trading patterns, the often anomalous behavior of asset prices, and distortions in firm outcomes. The course will culminate in a group project, in which students will work on a solution of a behavioral bias or pursue a profitable investment opportunity.

## Lectures

Section 001 Mon/Wed 1:45-3:15pm ET

Section 002 Mon/Wed 3:30-5:00pm ET

## Materials

Announcements, assignments, solutions, and other materials will be posted on the course Canvas website: <https://canvas.upenn.edu/courses/1693188>.

There is, unfortunately, no single textbook that comprehensively covers all or most topics discussed in this course. As a result, there is no required textbook. All material needed to be successful in the course will be covered in class.

On Canvas, you will find several academic overview articles that cover different aspects of what we will discuss in this course. These supplementary articles are sufficiently easy to read and may be useful resources to review (and dive deeper into) topics discussed in class:

- *Psychology-based Models of Asset Prices and Trading Volume*, by N. Barberis, in Bernheim, D., DellaVigna, S., Laibson, D. (Eds.), *Handbook of Behavioral Economics*, North Holland, Amsterdam, October 2018.
- *Behavioral Corporate Finance: The Life Cycle of a CEO Career*, by M. Guenzel and U. Malmendier, in *Oxford Research Encyclopedia of Economics and Finance*, September 2020.
- *Behavioral Corporate Finance*, by U. Malmendier, in Bernheim, D., DellaVigna, S., Laibson, D. (Eds.), *Handbook of Behavioral Economics*, North Holland, Amsterdam, October 2018.

At the end of the syllabus, I have included an additional list of optional readings that provide in-depth coverage of certain topics.

## Requirements

1. There will be two exams (see Course Schedule below for tentative dates).
2. A final group project will be due during the final exam period with group presentations during the last several weeks of class.
3. Problem sets, cases, and Canvas quizzes will be assigned on a regular basis.

All requirements are discussed in more detail below.

## **Attendance and Class Participation**

1. Because no single textbook provides comprehensive coverage of all topics, readings are meant as an optional complement to, and not a substitute for the lectures. Class attendance is therefore vital.
2. You must attend the lecture for the section for which you are registered.
3. Class participation is essential for the success of the course. Your questions not only help me better judge how the class is absorbing the material, they also help generate discussion. To this same end, I may also cold-call.
4. I may not be able to answer all questions to your satisfaction in class, especially if the answer involves material beyond that lecture's content. I am always happy to discuss such questions during my office hours.

## **Canvas Discussion Board and Support**

**Instead of email, I ask that you please post questions about the course material or logistics to the discussion board on Canvas.** The TAs and I will regularly check the board and answer your questions.

Of course, more sensitive questions that you don't want shared with others are welcome over email. Please let me know of any difficulties you may be having with the course as soon as possible. These difficulties may arise from the course itself, or external forces (e.g., other courses, personal issues). Regardless of the source, let me know as soon as possible so we can work together to avoid larger problems later. Wharton and the University offer a wide range of support services that are geared towards helping students.

## **Help and Review Sessions**

The teaching assistants will offer help and review sessions on a regular basis. The dates and times are yet to be confirmed.

## **Exams**

There will be two exams during the semester. Each exam will contribute 30% to the final grade. The (tentative) dates are listed on the course schedule below. The second exam concentrates on material taught since the first exam, but material presented earlier may also appear on this exam.

Following university rules, exams may be postponed because of “illness, a death in the family, or some other unusual event.” If such a circumstance arises, you must petition the dean’s office for a makeup exam.

## Group Project

The group project is meant as a venue to apply the concepts and methods developed in class in a practical context. The goal of this group project is to develop an implementable idea that has potential to generate value in that context.

**Project groups cannot exceed four students per group. I strongly recommend a minimum of three students per group.**

The group project will contribute 30% to the final grade. The project grade will be determined as follows:

- Write-up: 70% of project grade.
- Group project selection by due date: 5% of project grade.
- Participation in in-class group presentation: 15% of project grade.
- Completion of peer review by due date: 10% of project grade.
- A confidential peer evaluation may also affect individual project grades.

*I will provide further instructions regarding the group project, together with all important deadlines and a list of project ideas, in a separate document on Canvas.*

## Assignments

Problem sets, cases, and Canvas quizzes will, together with class participation, contribute 10% to the final grade. All submissions will be through Canvas and due at noon ET unless specified otherwise. Late answers will not be accepted. For problem sets and cases, group size is also 4 or fewer students. Each group only needs to submit one solution for a given problem set or case. Each group member will receive the same grade. Canvas quizzes are to be completed individually.

Solutions to problem sets will be made available after the submission deadline. Cases will be discussed in class and your preparation is essential for these discussions. Unless specified otherwise on Canvas, assignments will be graded on a “check-plus” (3 points), “check” (2 points), “check-minus” (1 point), or “no credit” (0 points) scale.

## Regrade Requests

Any request for regrading must be submitted to me by email within two weeks from the date the exam or assignment was returned. In that case, we will regrade the entire exam or assignment, which may result in an increase or decrease in your grade.

## Tentative Course Schedule

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| Date  | Class | Topic   | Assignments*  |
|---|-------|---|---|
| 11-Jan  | 1     | Introduction  |   |
| <b>Asset Pricing</b>  |       |   |   |
| 18-Jan  | 2     | Efficient Market Hypothesis                         |   |
| 23-Jan  | 3     | Stock Market Puzzles and Anomalies                  |   |
| 25-Jan  | 4     | Nonstandard Beliefs (I)                             | PS 1 due (G)  |
| 30-Jan  | 5     | Nonstandard Beliefs (II)                            |   |
| 1-Feb   | 6     | Nonstandard Preferences (I)                         | Case 1 due (G)  |
| 6-Feb   | 7     | Nonstandard Preferences (II)                        |   |
| 8-Feb   | 8     | Bounded Rationality                                 | Canvas Quiz 1 due (I)   |
| 13-Feb  | 9     | Limits to Arbitrage and Degrees of Freedom Critique |   |
| 15-Feb  | 10    | Exam 1  |   |
| <b>Corporate Finance</b>  |       |   |   |
| 20-Feb  | 11    | Market Timing (I)                                   |   |
| 22-Feb  | 12    | Market Timing (II)                                  | Case 2 due (G)  |
| 27-Feb  | 13    | Group Project Feedback Session                      | Group Project Selection (I) due                                     |
| 1-Mar   | 14    | Group Project Feedback Session                      |   |
| 13-Mar  | 15    | Behavioral Managers: Why or Why Not?                |   |
| 15-Mar  | 16    | Managerial Biases and Firm Investment (I)           |   |
| 20-Mar  | 17    | Managerial Biases and Firm Investment (II)          | Canvas Quiz 2 due (I)   |
| 22-Mar  | 18    | Managerial Biases and M&A (I)                       |   |
| 27-Mar  | 19    | Managerial Biases and M&A (II)                      |   |
| 29-Mar  | 20    | Managerial Biases and Financing Decisions           | PS 2 due (G)  |
| 3-Apr   | 21    | Exam 2  |   |
| 5-Apr   | 22    | Group Project Presentations                         |   |
| 10-Apr  | 23    | Group Project Presentations                         |   |
| 12-Apr  | 24    | Group Project Presentations                         |   |
| 17-Apr  | 25    | Group Project Presentations                         |   |
| 19-Apr  | 26    | Group Project Presentations                         |   |
| 24-Apr  | 27    | Group Project Presentations                         |   |
| 26-Apr  | 28    | Group Project Presentations                         | Canvas Quiz 3 due (I)   |
| 4-May   |       |   | Group Project Write-Up due** (G)<br>Group Peer Evaluation due** (I) |
| <p>* All assignments are due at noon ET except for assignments marked with ** which are due before midnight ET.</p> <p>Assignments marked with (G) can be answered in groups of 4 students or less. <b>Before submitting a group assignment, all group members must join the same group on Canvas for this assignment. If you are planning to work individually, you should still join a group containing no other classmates.</b></p> <p>Assignments marked with (I) are to be completed individually.</p> |       |   |   |

## Further Optional Readings

### Textbooks:

- *Behavioral Finance: Insights into Irrational Minds and Markets*, by Montier (available in the bookstore)
- *Behavioral Corporate Finance*, by Shefrin
- *Behavioral Finance: Understanding the Social, Cognitive, and Economic Debates*, by Burton and Shah
- *Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing*, by Shefrin

### Big picture overviews by the leaders of the field, each with their own focus:

- *Adaptive Markets: Financial Evolution at the Speed of Thought* by Andrew Lo
- *Animal Spirits* by Akerlof and Shiller
- *Thinking, Fast and Slow* by Daniel Kahneman.
- *Irrational exuberance* by Robert Shiller

### Engaging historical account of how some of these ideas came about, and their influence to date:

- *The Undoing Project* by Michael Lewis

### Detailed coverage of market anomalies and/or trading strategies based on them:

- *Expected Returns: An Investor's Guide to Harvesting Market Rewards*, by Antti Ilmanen
- *Quantitative Value: A Practitioner's Guide to Automating Intelligent Investing and Eliminating Behavioral Errors*, by Wesley Gray
- *The Missing Risk Premium: Why Low Volatility Investing Works*, by Erik Falkenstein

### Narratives and specific episodes:

- *When Genius Failed* by Roger Lowenstein. Account of LTCM failure.
- *Big Bets Gone Bad* by Phillippe Jorion. Description of Orange County fiasco. *Capital Ideas* by Peter Bernstein. Short history of academic finance (now dated).
- *The Big Short: Inside the Doomsday Machine*, by Michael Lewis. The subprime blowup.