

BIP 394: Theories of Financial Investing
Course Outline and Syllabus
Spring 2022

Office Hours: The TA will be in the classroom approximately 30 minutes before each class to answer questions. Both the TA and I will be available by appointment and can always be contacted via email. The TA will also be available to stay immediately following class to answer questions as needed.

Amy Falls (amy.falls@northwestern.edu)
(TA):

Textbook: The textbook for this course is Investments (12th Edition) by Zvi Bodie Professor (Author), Alex Kane (Author), Alan J. Marcus Professor (Author).

Why you should be excited that you are in this course: This course aims to develop key concepts in investments and modern portfolio theory. I will try to do this through a five-pronged approach:

1. **Lectures:** are first and foremost where I will walk you through the key concepts and basic frameworks.
2. **Cases:** are an attempt to bridge between example problems presented in lecture and “real world” problems. Good cases are, by their very nature, messy. You will have to make assumptions when you don’t have enough information, and you will have to filter out data when you seemingly have too much information.
3. **Outside Speakers:** will expose you to the complexities faced in the “real world.” These speakers are an excellent opportunity for you to hear, first hand, how some of the problems we study in class are handled outside the classroom. Sometimes the solution will resonate with what we have discussed, sometimes it won’t – in which case it is very important that you try to understand what factors are driving the disconnect. For example, you will learn that in an efficient market, arbitrage opportunities do not exist, and if they do develop, they do not persist. But sometimes, arbitrage opportunities do persist, or at least appear to – by the end of the course you will be able make a good guess as to why this appears to be so, even if you do not know the exact answer.

Due to the sometimes fluid nature of the speakers’ respective schedules, the dates and topics are subject to change.

4. **Portfolio Management and Presentations:** Investopedia Stock Simulator portfolios – This group assignment will last the length of the quarter and will allow you to apply the frameworks discussed in the book, cases, and in class to a real world investment simulation and presentation to the representatives of an endowment (your professor and TA).
5. **Class Discussions:** Discussing current events in financial markets at the beginning of each class will help us apply the concepts and frameworks discussed in class to events occurring in the markets that you may read about from week to week. **Students, as a part of class participation, are required to come prepared to class ready to discuss current events** – whether it be a

question about an event, an article of interest you would like to present, or an opinion you would like to share.

By the end of the course:

1. You will have a clear understanding of the major categories of investments globally including both traditional securities such as equities and bonds, alternative investments including hedge funds and venture capital and emerging investments like cryptocurrencies.
2. You will be able to figure out, on your own, whether an investment manager is truly a superstar – or simply an average manager that is straying from his/her stated objectives.
3. You will be able to interpret the markets' opinion on the direction of the future interest rates from studying the yield curve.
4. You will learn how a firm's financial statements may or may not reflect its underlying economics.
5. You will learn why diversification is called the "only free lunch" in economics, but you will also learn that holding more stocks in your portfolio does not necessarily equate to less risk.
6. You will learn what it means to hedge and how derivatives can help you take advantage of a particular world view.
7. You will learn the differences between a hedge fund and a private equity fund, and how a lack of mispricing opportunities may be erasing those differences.
8. You will have the chance to explore the intersection of ethics and investing.

What you shouldn't expect to learn from this course: Sorry, but we will not cover the fine art of stock picking or tell you foolproof ways to make money in the stock market.

What I expect: In order to profit fully from this course, you should be at least familiar with:

- a) Excel
- b) Linear regressions
- c) Variance/covariance algebra and solving equations

Review materials will be made available upon request to help refresh your memory. A modest number of readings will be assigned for each class. It is very important that you do the assigned readings before class in order to be able to follow along with and participate in the lecture and classroom discussion.

Course Grading:

The final grade will be based on:

Individual (70%)

Participation (10%)

3 Quizzes (5% each)

Beta Case (5%)

Midterm Paper (20%)

Final Exam (20%)

Group (30%)

Group Cases (10%)

Stock Simulator Paper & Presentation (20%)

Participation:

Class Participation will be based on individual engagement in current events, lectures, presentations, and outside speaker presentations.

Class participation:

Class participation grades will be based on the quality and quantity of in-class participation (discussion before or after class does not count). A necessary (but not sufficient) requirement for participation is presence. If you are not in class, you cannot participate. You do not need to tell me that you are going to miss a class, but your performance assessment will be negative if you are not there. Please do not be surprised if I “cold call” during the lecture – cold calls are not meant to embarrass you, but are meant to keep class discussion moving forward, to involve more students in the discussion, and to make sure that you understand the finer points of the lecture. Also, do not be afraid to ask questions. Chances are, if you do not understand something, there is at least one other student that doesn’t understand either, but is too afraid to admit it.

Current events:

Each class will begin with a 10-15 minute discussion of current events. Throughout the course, you are expected to follow what is going on in the financial world. In particular, each week you should be prepared to discuss at least two topics that you’ve read about in the past seven days. You should also try to understand where the issue at hand is in its life cycle – is this a brand new development, an ongoing concern, or the end of a chapter? Excellent sources of material include newspapers (e.g., Wall Street Journal, NY Times Business Section), magazines (e.g., Business Week, Forbes), and online resources (e.g., NY Times Dealbook, Knowledge@Wharton, McKinsey Quarterly).

Peer evaluations:

Your groups will be assigned in the first two weeks of class based on your preferences and your level of experience with class content such that groups are reasonably balanced in terms of knowledge of finance and investing. At the end of the quarter, you will be asked to give each of your group members a grade on their performance within your group. You will receive peer assessment forms, which I will use to assess the quality and quantity of each group member’s contribution to the group’s performance. This assessment will enter into each student performance measurement as outlined above. You should think about how your group members will be assessing your performance and about what expectations you should have about your peers’ performance. You

should discuss at your first group meeting what your expectations are concerning one another's performance and behavior. I do not anticipate any group problems, but if any occur you should feel free to talk the situation over with either me or the TA.

Quizzes and Case Assignments (Individual & Group):

Quizzes:

In-class quizzes will be given as detailed in the schedule based on the topics covered in the readings. Quizzes seek to keep you caught up on your reading and get you engaged with the concepts.

Case assignments:

One of the secondary goals of this course is to expose you to the case method of teaching. We will utilize several investment cases to stimulate discussion. Case write-ups should take the form of case solutions. You should take the perspective of an external consultant to the case decision maker(s) such as the CEO, CFO or Board of Directors. Your case solutions are recommendations concerning the appropriate course of action. Read the following section on format carefully. For group cases (EVP & Wildcat), cases should be completed in your groups and a single copy with the names of the group members needs to be handed in. All cases are due at the beginning of class on the due date.

The format of case write-ups should be as follows:

- a) A short executive summary stating what course of action should be followed and a succinct description of why
- b) A short list of key assumptions made in your analysis
- c) The logic of your argument leading to your recommendation

The executive summary plus the key assumptions should not exceed one page. The bulk of your paper should be the logic supporting your recommendation. Key assumptions are not numerical estimates—defer numerical estimation assumptions to the tables and exhibits. Case write-ups are limited to three pages of text (typed, double-spaced, with reasonable point sizes and margins). Supporting tables, spreadsheet exhibits and graphs (herein called exhibits) are limited to five additional pages. Please do not hand in reams of computer output – edit the output carefully to enable the reader to easily identify the results and method of analysis.

The **exhibits should be referred to in the text of the write-up** as they are needed to support the argument being made. Reference to exhibits should be as explicit as possible, telling the reader what exhibit to look at (and why), and what numbers are particularly relevant to your point. Exhibits that are not needed should not be included therefore all exhibits should be referenced in the text.

Tables and graphs should be clearly labeled: the assumptions being maintained and the formulas being used should be obvious to the reader. Care in preparing the tables is very important: for example, formatting the numbers on spreadsheet exhibits so that the table fits on a page and yet is easy to read without a magnifying glass (by me). When referring to how the calculations on the exhibit are done, you should use footnotes or a legend of some sort with the calculations described in words or in formulas, not using spreadsheet formulas. A rule of thumb on clarity is that the tables should be able to stand alone, i.e., they could be understood without reading the text.

Midterm Paper:

A 6–8-page paper on a topic of your choice will be due week 7 (5/11). It is recommended that you try to pick a topic as soon as possible in order to allow for research throughout the first half of the

class. Papers should be double spaced and include a works cited (bibliography) of research sources. Sources should be formatted in MLA format (or similar approved format). Anyone who uses Wikipedia as a source, or summarizes a textbook or article will receive a poor grade. Please draw on multiple sources to develop a paper with a thesis, body and conclusion. Please ask if you have questions or need direction on choosing a topic – we will address choosing topics in class with examples of previous paper topics.

Investopedia Stock Simulator Paper & Presentation:

As part of the class we will use a stock market simulation called Investopedia Stock Simulator. Each group will be given \$1,000,000 to invest after the first class. Details of the simulation will be explained in the first class. Groups should be at least 25% invested by the second class, 50% by the third class, and 100% by the fourth class. Group members should be knowledgeable on a weekly basis of their portfolio performance and holdings. Investopedia Stock Simulator is a core component of the class. It will give you the opportunity to apply class concepts in as close to real world practice as we can in a classroom environment. We will briefly review results for the week at the beginning of each class.

You will have two deliverables based on Investopedia Stock Simulator: (1) a 2-page group paper outlining your strategy due week 5 (4/30) and (2) a group presentation due and presented in the last class (5/28). The paper should explain the strategic underpinnings of your investment portfolio. Some questions your paper should answer include:

1. How does your fund intend to generate returns? What are the strategies you are employing to identify investment opportunities? What are your goals?
2. How are allocation and investment decisions made at your fund? What is your target allocation and why? Why have you chosen not to invest in certain assets?
3. How do you intend to measure performance? What metrics do you plan to use? Why?
4. What potential challenges do you foresee and what plans do you have to overcome them?

Broadly speaking, the paper should explain how and why you are investing as you are. Make sure to use concepts from class in your rationale. If you would like, you can also include comparisons of your strategy to real funds. As with any paper, proper citations of all research must be followed using typical acceptable formats. The paper itself should be double spaced with normal margins at a point 12 font. **Be prepared to talk about your paper for a few minutes in class.**

The group presentations will serve as the culmination of our course. Your group will present to the TA and I as if we are endowment managers considering investing with your fund. The class will be the audience. The nature of the presentation will be a discussion and defense of your Investopedia Stock Simulator portfolio. The presentation should include: strategy and rationale of your fund (in less depth of course than in the paper), discussion of performance, and examples of investments with justifications. Additional details will be given in class and examples of prior presentations provided.

Final Exam:

The final is not intended to be entirely comprehensive, though all material is fair game. Details on what will be covered on the final exam—as well as the option of a review session for those interested—will be discussed in the second half of the course.

TENTATIVE COURSE SCHEDULE (Textbook; CP: Coursepack; C: Canvas)

Date	Topics Covered	Reading	Assignment Due	Quiz	Guest Speaker
Wk 1 3/30/22	<ul style="list-style-type: none"> Course Overview Introduction to Financial Investing NU Investment Office/Endowment Intro to Stock Simulator 	Textbook 1-56 Yale Management Case			
Wk 2 4/6/22	<ul style="list-style-type: none"> Review of Financial Assets Fixed Income Equities Derivatives 	Time Value of Money Basic Ratio Analysis Textbook 185149-PDF-ENG			
Wk 3 4/13/22	<ul style="list-style-type: none"> Portfolio Theory CAPM and Asset Allocation 	Textbook Beta Management Does CAPM Work Risk and Return 1 5220-PDF-ENG	Beta Case Questions	Quiz #1 Submit Paper Topics (?)	
Wk 4 4/20/22	<ul style="list-style-type: none"> Security Selection Textbook 	Basic Ratio Analysis Multiples Primer Analyst Reports	Simulation 50% invested		Tim Hurd? Browning West Guy? Kevin or Anthony
Wk 5 4/27/22	<ul style="list-style-type: none"> Hedge Funds 	Textbook AQR Delta Case IES788-PDF-ENG		Quiz 2	Evanston Capital? AQR Guy
Wk 6 5/4/22	<ul style="list-style-type: none"> Private Equity & Venture Capital 	Private Equity Industry			Nnamdi Okike Tim Sullivan Bon French
Wk 7 5/11/22	<ul style="list-style-type: none"> Real Assets Real Estate Natural Resources Crypto 	Framework for Real Assets University of Chicago Timber Case Wildcat Capital	Wildcat Case Questions	Midterm Paper due	Ben Miller and guest
Wk 8 5/18/22	<ul style="list-style-type: none"> ESG 	John Paulson Gold Case ESG Metrics		Quiz 3 Alternatives	Jeff Ubben
Wk 9 5/25/22	<ul style="list-style-type: none"> Final Presentations 			Portfolio Presentations	
Wk 10 6/1/22	<ul style="list-style-type: none"> Reading Period 				
Wk 11 6/8/22	<ul style="list-style-type: none"> Final Exam 				