FINANCIAL ECONOMICS

Fall 2025

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Description

This course addresses topics in corporate finance, with an emphasis on the asset pricing of bonds and stocks. The scope of the course includes: a general background and the rationale for corporations; finance as the resource allocation over time; decision making under uncertainty and the role of information; capital markets and the interest rate structure; firms' financial decisions.

Learning Objectives

This course will enable you to master the following skills.

- 1. Demonstrate knowledge of key facts about the bond and stock markets.
- 2. Calculate the values of cash flows at different periods in time and under different circumstances.
- 3. Calculate expected interest rates.
- 4. Identify different methods for valuing financial securities and their distinguishing characteristics.
- 5. Apply different valuation methods to financial securities and portfolios of financial securities.

Textbook and Required Materials

There is no required textbook for the class. However, you may want to read more or see more examples of various topics. You may the following recommended textbooks useful as they cover much of the materials in this course.

- Zvi Bodie, Alex Kane, and Alan J. Marcus. 2018. Investments. 11th Edition. New York, NY: McGrw-Hill Education.
- Frank J. Fabozzi edwin H. Neave, Guofu Zhou. 2012. Financial Economics. First Edition. New York, NY: John Wiley and Sons.

You are required to have a Stock Trak account (www.stocktrak.com), which allows online trading with "fake money" in real-world financial markets in real time.

Stock Trak Assignment

This is a stock simulation assignment. 15% of your grade is based on the written report, and 10% of your grade is based on your performance.

Description. Suppose that you are hired as a manager to manage a mutual fund. You will have a \$1 million pretend cash balance under your management. Although the initial fund is pretend cash, the simulation provides you with actual prices of most securities in most public markets across different countries. You have to follow the following rules.

- The objective of your fund is to outperform the standard benchmark, S&P 500. Your fund is an aggressive fund that uses an active (i.e. not passive) management strategy.
- The inception date of your fund is the Friday of the first week of class, and you fund will be liquidated on the Friday of the last week of class. Over the course of these weeks, you are required to perform a minimum of 100 trades and a maximum of 400 trades. A trade consists of opening or closing a position. For example, buying 100 shares of AAPL would be one trade, and selling these shares would be another trade.
- As a manager, you can buy or short stocks, bonds, options, or futures. Your portfolio must have the following components:
 - Build an equity portfolio of at least 20 stocks
 - Short some stocks
 - Build a bond portfolio
 - Take multiple positions in futures
 - Take multiple positions in options

Written Performance Report. You are required to hand in a written report within seven days of the liquidation of your fund. In this report, you need to describe your overall strategy and the rationale behind this strategy and each trading decision you have made. You also need to reflect on this experience by describing good and bad decisions you made. You can also mention what you would have done differently in the reflection.

Performance. 5% of your grade is based on your following the rules mentioned above, and 5% of your grade is based on your outperforming the benchmark index S&P 500. As managers receive performance-based bonuses, you will receive a 2% bonus mark if you have the best performance in the class.

Grading Policy

Your grade will be determined by three components: exams, problem sets, and Stock Trak Assignment. The relative weights are as follows:

| Exams | 60% |
|-----------------------|-----|
| Problem Sets | |
| Stock Trak Assignment | 25% |

Tentative Course Schedule The schedule below is tentative.

Week Topic Introduction to Financial Economics 1 2 Financial Statements Time Value of Money 3 Bond Valuation 4 Stock Market Basics 5 6 Fundamental Approach—Microeconomics Fundamental Approach—CAPM 7 8 Fundamental Approach—Macroeconomics 9 Technical Analysis Behavior Finance 10 Options 11 12 Options and Other Topics