

# Economics 422A: Investment, Capital, and Finance

## UW Autumn 2020

**Instructor:** Yu-chin Chen

**Class Time and Location:** MW 3:30PM-5:20PM, via Zoom

**Course Office Hours:** W after lecture & by appointment

**Email:** yuchin@uw.edu

**Website:** UW Canvas

### Course Description

This course is an introduction to financial assets and capital markets where they are traded.

We will cover the analytical tools and finance theory to value securities and make investment decisions. Key topics are valuation of assets with net present value and no-arbitrage, informational efficiency of asset markets, and risk management.

### Prerequisites

Financial economics is a quantitative subject, and we will rely heavily on microeconomic theory, statistics, and mathematical techniques. You should be comfortable with consumer optimization, decisions involving time and risk, concepts of market-clearing, equilibrium, as well as statistics and regression analysis. Good knowledge of calculus is required; linear algebra useful but not required. You will also need to know how to use Excel.

### Course Objective

- Understand basic financial theories of asset risk-return trade-off and portfolio optimization analysis.

### Group Work

Working in groups is highly encouraged. Study groups are encouraged for assignments and for exam preparation. However, you must submit your own individual write-up for the assignments. All exams/quizzes will be based on individual evaluations, no collaboration allowed.

### Course Textbook

- (Required) Zvi Bodie, Alex Kane, and Alan J. Marcus (**BKM**), Investments, 12ed.
- (Optional) Jeremy Siegel, Stocks for the Long Run
- Additional supplementary material will be posted on Canvas

### Assessments

**- 5 Problem Sets (35%) – due via Canvas on Fridays (Oct 9, 23, Nov 6, 20, & Dec 4)**

There are four homework assignments for the course to help you review and apply the material learned in lectures. Group work is strongly encouraged but **you need to submit individual write-ups, in your own words, as well as the names of your group-mates**. Assignment grades will be based on a 10-point scale. Six points will be awarded for completion; the remaining 4 will be assigned based on the quality of your answers.

**- In-Class Group Discussion and Presentation (15%)**

There will be occasional group discussion sessions to go over assigned readings and questions, in addition to a final group presentation, which will take place during the last week of class. You will be guided through examples to help you with completing assignments at home. During the group discussions, you will get to work through problems collectively, so participation is important.

### ***- Quizzes and Exams (50%)***

There are four quizzes during the quarter and a final exam during final exam week; all are open book. Each quiz will take ~20 minutes to complete and counts towards 7.5% of your grade. They are designed to make sure you stay up-to-date on the material. The final exam (20%) is cumulative. The dates are announced on the first day of class.

If you cannot make an exam date, the following policy applies: major exceptions are only allowed in case of medical emergencies that concern either you or your family. In this case, please provide a certification by a doctor on the exam date (see [Academic Conduct policies](#)). If it is a quiz that you have to miss, its weight will be added to the final exam. If it is the final exam that you miss, you will need to take a make-up exam next quarter. This exam will be significantly harder than the exam at the end of this term, reflecting the fact that you have more time for preparation.

### ***- Extra Credit (5%)***

Students can receive 5% full credit for turning in their own answers to seven of the “Key Questions” from each lecture before the next class meeting. This is an easy way to get credits and also help you review the class material regularly. Under this option, the scores from the rest of the contributions will be rescaled to 95% total.

### ***Academic Conduct Policy***

The Economics Department supports the University policies regarding academic honesty and classroom behavior. Students of the course are expected to adhere to the University of Washington’s Policy on Academic Honesty that can be found at <https://depts.washington.edu/grading/pdf/AcademicResponsibility.pdf>.

### ***Course Topics***

1. Introduction
  - Basic ideas of finance
  - Implications of no-arbitrage
  - Risk and risk aversion
2. Risk and return
  - Optimization: Mean-variance analysis
  - Equilibrium: Capital Asset Pricing Model
  - Arbitrage: The Arbitrage Pricing Theory and multifactor models
  - Portfolio choice for long-term investors
3. Present value and efficient markets
  - Market efficiency and random walk prices
  - Equity valuation
  - Term structure of interest rates
  - Liquidity effects on prices (if time permits)
4. Introduction to Derivative Securities
  - Forwards, futures, and swaps
  - Options
  - Risk management and crises (if time permits)