

Economics 426: Advanced Financial Economics UW Summer 2022

Instructor: Yu-chin Chen

Class Time and Location: M-F 8:30-10:50AM, (hybrid: in-person & Zoom)

Course Office Hours: W 8:30-10:50AM or by appointment

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Course Description

This course is an advanced course in financial economics and builds upon the knowledge you acquired in Economics 422, a prerequisite. In this course, we will first review the economic underpinnings behind security valuations and investment decisions, then move on to examine more closely the foreign exchange (Forex) market, the derivatives markets, and possible additional topics in behavioral finance and fintech. Relative to Economics 422 and 424, the focus of the course is less on techniques and calculations but more on applications and analyses, through case studies and small projects that aim to illustrate the concepts of arbitrage, informational efficiency, and portfolio and risk management in practice.

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 the Econ 422 material is required. You will also need to know how to use Excel.

Course Objective

- Develop deeper and more nuanced understanding on financial economics of asset risk-return trade-off, portfolio optimization, financial instruments & market microstructures, and risk management.

Group Work

Study groups are encouraged for assignments and exam preparation. However, you must submit your own individual write-up for each assignment. No collaboration is allowed on exams and quizzes.

Course Textbook

- Main course material will be provided on Canvas
- In addition, you should already have access to Zvi Bodie, Alex Kane, and Alan J. Marcus (**BKM**), Investments, 12ed.
- (Optional) Jeremy Siegel, Stocks for the Long Run

Assessments

- 4 Problem Sets (30%) – due via Canvas

There are four homework assignments for the course to help you review and apply the material learned in lectures. You are encouraged to work with other classmates but **you need to each submit individual write-ups, in your own words**. 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 Discussion and Presentation (30%)

Each week during the summer quarter, we will have a discussion session to go over assigned case studies and applied topics. There will also be a final presentation, which will take place during the last week of class.

- Quizzes/Exams (40%)

There are four quizzes during the quarter; all are open book. Each quiz will take ~30 minutes to complete and counts towards 10% of your grade. They are designed to make sure you stay up-to-date on the material. There are no final exam during the summer quarter.

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. Review and introductions
 - Market completeness
 - Implications of no-arbitrage
 - Stochastic discount factor
2. Risk and return
 - Optimization: Mean-variance analysis
 - Equilibrium: Capital Asset Pricing Model
 - Arbitrage: The Arbitrage Pricing Theory and multifactor models
3. Present value and efficient markets
 - Asset valuation: equity, bonds, & derivatives
 - Long-term investor portfolio & the horizon effect
 - Market microstructure and liquidity
4. Options
 - Portfolios of options
 - Option valuation
 - Black Scholes, volatility smile/smirks
 - Risk management and crisis
5. The Foreign Exchange Markets
 - Uncovered interest parity condition
 - FX predictability and risk factors
 - Digital currencies & CBDC
6. Structured finance (if time permits)
 - Financial innovations in the credit markets
 - Credit crisis of 2007-2009 & the amplification mechanisms
 - Recent fintech & implications
7. Selected topics from behavioral finance (if time permits)