

# FINA 8802: Introduction to Asset Pricing

Professor Hengjie Ai

## **I. Overview:**

This course provides an introduction to financial economics. It is intended for first and second year PhD students who are interested in financial economics. This class assumes that the students have taken or is taking concurrently a rigorous first-year microeconomic theory course. In particular, a good understanding of the consumer theory and general equilibrium theory is essential for the success in this class.

## **II. General Information:**

### **Textbook:**

We do not follow any particular textbook closely in this class, but I recommend the following textbook by Kerry Back.

*Asset pricing and portfolio choice theory*, by Kerry Back. ISBN-13: 978-0195380613  
ISBN-10: 0195380614

You will probably find the following standard grad level Econ textbooks useful as references:

*Microeconomic Theory*, by Mas-Colell, Whinston and Green (MWG).

This is a standard first-year micro-economic theory textbook. We will draw on results from Chapter 1-6 and Chapter 15-19 in this book.

*Recursive Macroeconomic Theory*, by Lars Ljungqvist and Thomas Sargent.

Standard macroeconomics textbook. Chapter 7 and 10 focus on asset pricing.

### **Contact Information:**

Office: Room: 3-247  
Office Hours: by appointment.  
Email: [hengjie@umn.edu](mailto:hengjie@umn.edu)

## **II. Course Outline:**

**Lecture 0: Introduction to asset pricing: questions and methodologies. (Sep 7)**

**Lecture I: No arbitrage pricing (Sep 7)**

- Duality and the Existence of State Prices.
- Application 1: factor pricing
- Application 2: International asset pricing puzzles

**Lecture II: Optimal portfolio choice problems (Sep 14)**

**Lecture III: General equilibrium and consumption-based asset pricing (Sep 21)**

- Complete markets and competitive equilibrium
- The consumption-Euler equation
- The equity premium puzzle and leading asset pricing models

**Lecture IV: Preferences in in asset prices (Sep 28)**

- Alternative preferences (Gilboa-Schmeidler, Hansen-Sargent, Epstein-Zin)
- Generalized risk sensitivity and asset pricing

**Lecture VI: Asset pricing with heterogeneous agents (Oct 5)**

- Incomplete market
- Heterogenous risk aversion

**Lecture V: Asset pricing with heterogeneous information (Oct 12)**

- Grossman-Stiglitz models
- Forecast revisions and forecast errors

**Lecture VI: Probabilities in asset prices (Oct 26)**

- The Ross recovery theorem
- Perron-Frobenius and the permanent component of SDF
- Limitation of the recovery theorem

## **IV. Requirements and Grading:**

There will be a two-hour in-class final exam.