

ECO 436H: ADVANCED ECONOMICS OF MONEY AND BANKING  
2014  
University of Toronto

**Classes:** 14:00 - 16:00, Wednesday, LM 157

**Instructor:** Professor Shouyong Shi

Office: GE 268

Office hours: Wednesday (10:30 - 12:00), or by appointment.

Email: shouyong@chass.utoronto.ca

(Note: To avoid confusion that is often created by email messages, I will not answer any question sent by email that will require more than two lines of answers. For longer questions, please come to the office hours or make an appointment.)

**Instructor:** Professor Shouyong Shi

Course website: <http://sites.google.com/site/shouyongsite/>

(Please check this site for updates of the course materials including the assignments.)

**Course Description:**

The purpose of this course is to introduce students to some formal models of money and banking in the dynamic general equilibrium framework. The course will be based on a series of lecture notes. We will start with a non-monetary economy and examine equilibrium asset prices. Then, we will introduce money and analyze policies. Students will learn how to solve the economic models and how to use them to address economic issues. Solid working knowledge of calculus is absolutely necessary for the course but prior training in monetary economics is not. Other prerequisites for the course are:

ECO325H1(70%)/ECO326H1(70%); ECO374H1(70%)/ECO375H1(70%).

Students who do not meet these prerequisites should not take this course.

**Evaluation and Assessment:**

Your final grade in this course will be based on the weighted average of the numerical marks in three assignments and the final exam.

- Three Assignments: 12% each
  - Each assignment will be posted at the website above and a due date will be specified. Assignments handed in after the due date will not be accepted.
  - If acceptable reasons (such as medical ones) prevent a student from handing in an assignment before or on the due date, the weights for that assignment will be re-assigned to the final exam.
- Final Examination: 64%.
  - Try to avoid missing the final exam. A make-up exam is not only very costly, but also difficult to be set up in such a way to ensure complete comparability with the original exam.
  - If you will not be able to take the final examination in the scheduled time and date, you should drop the course.

## Outline of Lectures

0. Introduction
1. Elements of an intertemporal economy
  - Agents, goods and assets
  - Budget constraints
  - Intertemporal utility function
  - Intertemporal maximization
  - The Lagrangian method
  - Competitive equilibrium
2. Government finance and asset pricing
  - Government
  - Competitive equilibrium
  - Government finance and intertemporal constraint
  - Asset pricing formula
3. Economies with longer horizons
  - A three-period model
  - An infinite-horizon economy
4. Uncertainty and asset prices
  - Stochastic output and conditional expectations
  - Utility maximization under uncertainty
  - Competitive equilibrium and asset pricing
  - Other types of assets: forward and options
  - Equity premium puzzle
5. An economy with cash in advance
  - The basic idea
  - Description of the economy
  - Quantity theory, Fisher equation and index bonds
  - Interactions of monetary and fiscal policies
  - Capital accumulation and super-neutrality
  - Welfare cost of inflation
6. Two countries with cash in advance
  - Equilibrium

- Efficiency
- Floating exchange regime
- Indeterminacy of exchange rates

7. The liquidity effect of monetary policy

- Open market operations
- Limited participation and portfolio choice
- Equilibrium and interest rates
- Liquidity effect of open market operations
- Real effects of open market operations
- An alternative formulation of the liquidity effect

8. Risk sharing and bank runs

- Risk sharing and the efficient allocation
- Deposit contracts
- Expectations and bank runs
- Suspension, deposit insurance and other policies

9. Search theory of money

- Search frictions and anonymity
- Optimal trading strategies
- Non-monetary and monetary equilibria
- The value of fiat money
- Inflation and output