Fahad Khalil
khalil@uw.edu
321 Savery Hall

Econ 486, Autumn 2019
Economics of Information
OH: TTH 5:20-5:40
Th 1100-1200 (+ appt.)

Overview

A large number of economic transactions occur in the presence of asymmetry of information. Sellers often know the quality of a good better than buyers. Buyers have a better idea of their willingness to pay for a good than do sellers. Insurance companies do not know the risk-type of those they are insuring, and after an accident, it is hard to tell if the insured took adequate precaution. Markets and organizations try to overcome constraints on trade imposed by these information asymmetries. Starting with the pioneering contributions of Nobel Laureates George Akerlof, Michael Spence and Joseph Stiglitz, a large body of work has emerged devoted to studying the economics of information. (For more on the Nobel Prize to these economists, see the website: http://www.nobel.se/economics/laureates/2001/press.html. The 2007, 2014 and 2016 Nobel Prizes were also on closely related topics.)

There are many examples of attempts to address issues of asymmetries of information during economic exchanges. Sellers build reputations and brand names. New products come with introductory offers as an attempt to signal quality. Warranties provide insurance to consumers and may perhaps also be indicative of quality. Insurance contracts screen the insured by a judicious choice of an array of deductible-premium pairs, and deductibles and penalty-premiums provide incentive to drive with caution. Bonuses provide workers incentive to work hard when employers cannot monitor the work effort directly. Piece-rate schemes provide stronger incentive to produce, but may make a worker pay less attention to building firm reputation. Debt contracts minimize on monitoring costs. Collateral can be used to screen good projects.

The object of this course will be to provide the students a framework to systematically think through problems that arise during exchange under asymmetric information.

Prerequisites: Econ 300. Recommended Econ 485.

The analyses will rely on game theoretic concepts although it is not required that students know these concepts prior to the course. Thus, Econ 485 will provide a useful, but not essential, background.

Students are expected to be comfortable with using elementary partial derivatives and solving systems of equations.

- *"Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy (https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form (https://registrar.washington.edu/students/religious-accommodations-request/)."*

- *The Economics department has a policy on academic conduct and academic honesty. Please be familiar with it : http://econ.washington.edu/undergrad/academic_conduct/*

Outline of Topics

1. Uncertainty

2. Adverse selection

3. Signaling: competitive market; monopoly.

4. Screening: competitive market; second-degree price discrimination; lender-borrower contracts; hierarchical agency.

5. Moral hazard: competitive market; hierarchical agency.

6. Special topics: as time permits – present bias, microfinance

Problem Sets and Exams

Assignments will be handed out periodically and answer keys will follow soon afterwards. They will not be graded, but you are strongly encouraged to do them regularly to check if you are making adequate progress.

There will be three (**<u>cumulative</u>**) tests:

Test 1	20% of the grade	(Thursday, October 17)
Test 2	30% of the grade	(Thursday, November 7)
Final	50% of the grade	(**UW schedule**: Thursday, *December 12*, *2019*, *4:30-620*, CMU 326)

Course Pack

A course pack with the following material is available for purchase (*instructions below*).

From *Microeconomics*, by Perloff, Jeffrey M., (Pearson).

Chapter 17: Uncertainty
Chapter 19: Asymmetric Information

Chapter 3: Price Discrimination (excerpt). In *Theory of Industrial Organization*, by Tirole, Jean. pp. 142-154. MIT Press.

From *Economics, Organization and Management*, by Milgrom, Paul; Roberts, John. pp. 166-203.

Chapter 6: Moral Hazard and Performance Incentives.
Chapter 7: Risk Sharing and Incentive Contracts.

Purchasing the Course Pack

Since two chapters are from Perloff's *Microeconomics* textbook, which many students may already possess, there are two versions of the course package, a complete and a partial version (without the Perloff Chapters).

Please purchase the one appropriate for you by following the instructions below.

COMPLETE
Go to: https://coursepacks.xanedu.com/?PackId=803936

PARTIAL (without Perloff chapters 17 and 19)
Go to: https://coursepacks.xanedu.com/?PackId=803004

- If you have previously registered for another Course Pack, log in. If not, click the Student Registration link. Complete the registration page and click Submit.

- Confirm your course pack Selection, and complete the purchase form.

  You will have immediate access to your digital course pack.
  You will not receive a printed copy of the course pack.
  You can print your course pack yourself, if your system hardware and connectivity supports downloading and printing very large files from the Internet.

- After completing the purchase, you will be taken directly to "My XanEdu" where you can access your digital course pack.

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