Ec 515 - Information Economics

Instructor:	George Georgiadis (gjg@bu.edu)
Lecture Hours:	Monday and Wednesday, 11:00 - 12:20 (SSW 413)
Office Hours:	Monday 14:00-15:00 and Wednesday 13:00 - 14:00 (SSW 548)
Course Website:	http://people.bu.edu/gjg/Ec515.html
Teaching Assistant:	Lingfeng Que (quel@bu.edu)
TA's OH:	Thursday and Friday 14:00 - 15:00 (SSW B20)
Midterm Date:	TBA
Final Date:	December 15, 12:00-14:00
Textbook:	Bolton and Dewatripont (2005), *Contract Theory*, MIT Press.
Version:	September 9, 2014

Read this syllabus carefully. It is an informal contract between teacher and student, and lays out the plan for the entire term. As the term progresses, there may be changes. In this case, I will post revised versions on the web and let you know they are there.

Overview

In many (perhaps most) economic situations, individuals behave without full knowledge of the consequences of their actions, and often some individuals have better knowledge of the situation than others. This course is designed to help you understand how economists think about these problems. The consequences for the functioning of markets can be quite dramatic, leading to behavior quite different from what you may have come to expect from your intermediate micro course.

We will cover many of the tools and techniques used in models of moral hazard and adverse selection. We start with static models of moral hazard and adverse selection, and develop their dynamic counterparts. While the aim is the develop a toolset, we apply the analysis to variety of applications in Labor Economics, Industrial Organization, Personnel Economics, Public Economics, and Corporate Finance.

Prerequisites

Intermediate microeconomics, calculus, and a course in probability theory and statistical inference. Game theory is also extremely useful, but not strictly necessary.

Textbook

The textbook for the course is Bolton and Dewatripont (2005), *Contract Theory*, MIT Press. The technical level of the course will often be somewhat lower than that of the course textbook, which I will be following loosely. As such, the textbook is useful but not (strictly) necessary, and I strongly recommend that you take notes in class.

Requirements

Grades will be determined by four problem sets (20% total), an in-class midterm (30%), a final exam (40%), and class participation (10%).

The problem sets will build upon the concepts and techniques taught in class, and they will be graded on a $0 - 100$ scale. They are due at the beginning of class on the following dates:

Problem Set #1:	Monday, September 15 (Week 3)
Problem Set #2:	Monday, October 6 (Week 6)
Problem Set #3:	Monday, October 27 (Week 9)
Problem Set #4:	Monday, November 17 (Week 12)

Late submissions will be reduced in grade by 50% for each day late and not accepted after two days. The only standard exception is a medical excuse approved by me at least 24 hours in advance (and certified in writing by a health care professional). You can try to email me for other extensions, but I am generally very unsympathetic to granting an extension for a reason that was foreseeable in advance.

The midterm and the final exam will be similar to the problem sets. The midterm will cover everything covered by the midterm date (TBA), and the final will cover all the material of the course. Both exams will be open-book and open-notes.

Academic Conduct and Collaboration Policy

You are expected to know and understand the provisions of the CAS Academic Conduct Code. Cases of suspected academic misconduct will be referred to the Deans Office. You are encouraged to discuss the problem sets amongst you. However, each student must submit his / her own solutions (*i.e.*, using his / her own analysis and explanations). If you use any resources other than the textbook or the class notes in your solutions (*e.g.*, internet), then you must disclose it to me, in writing, at the time you submit the problem set. No collaboration is allowed during the midterm and final exams.

Topics (*subject to change*)

- · Decision making under uncertainty (*2-3 lectures*)

- · Static models of moral hazard (*6 lectures*)

    – Principal-agent problem

- Moral hazard in teams

- Relative performance evaluation and tournaments

· Dynamic models of moral hazard (*2-3 lectures*)

- Dynamic = the contracting parties interact repeatedly.

· Self-enforcing (relational) contracts (*2 lectures*)

- What if contracts must rely on trust?

· Applications of moral hazard (*3-4 lectures*)

- Holdup problem
- Information disclosure

· Career concerns and reputation (*1-2 lectures*)

· Static models of adverse selection (*4-5 lectures*)

- Screening
- Signaling

· Static models of mechanism design (*3 lectures*)

- Auctions
- Vickrey–Clarke–Groves mechanism
- Bilateral bargaining

· Dynamic models of mechanism design (*2 lectures*)

- Price discrimination
- Durable goods monopoly