

GR5212: Microeconomic Analysis II Part 2 – Information Economics

Spring 2017

Columbia University

Contact Details

Professor: Mark Dean

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Classes: 4.10 to 5.25 on Mondays and Wednesdays in IAB 410

Office Hours: 10.00 to 12.00 Wednesdays, or by appointment (Room 1031 IAB)

Website: <http://www.columbia.edu/~md3405>

CourseWorks: https://courseworks.columbia.edu/portal/site/ECONG5212_001_2017_1

Teaching Assistant: RC Lim

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Recitation: 6.00pm to 7.00pm Tuesdays, Kent 413

Office Hours: 4.30pm – 5.30pm on Tuesdays in the Lehman Library Group Study Area

Course Description

G5212 is the second semester course in the microeconomics sequence for the MA program. It consists of two halves: Game Theory (first half) and Information Economics (second half), both of which will be taught by me.

Information economics is concerned with strategic interactions between agents in cases of asymmetric information, a central and fundamental part of modern economic theory. A huge number of important economic situations are covered by this set up – for example insurance, schooling, price discrimination and work contracts. We will focus mainly on the three classic models in information economics: Adverse selection (or screening), signaling and moral hazard.

Prerequisites

The formal prerequisite to this course is G5211.

Assessment

Assessment for the second part of the course will consist of two elements: Homeworks (20%) and a final (80%)

Homeworks

There will be 4 problem sets. You are encouraged to work with your classmates in solving them, but I request each of you to write up and turn in your own answers. Solutions to the problems will be posted on the course website. Each homework will be graded from 0 – 10. Late homeworks will not be accepted or graded.

Midterm and Final

In addition to homeworks, there will be one final exam which will take place on Monday May 8th between 1:10pm – 4:00pm in IAB 404. It will cover all the material for the second part of the course (i.e. everything after Spring Break)

Course Materials

By and large, the course will be based on slides/lecture notes, which I will make available online. For this part of the course, there is one required text – “The Economics of Contracts”, by Bernard Salanie (second ed – ISBN 978-0-262-19525-6. Other useful texts include

- Bolton, P. and M. Dewatripont, **Contract Theory**, MIT Press, 2005.
- Laffont, J.-J. and D. Martimort, **The Theory of Incentives**, Princeton University Press, 2002.

Course Policies

Regrading

Corrected assignments and exams will be available in the class mailbox at most seven days after the deadline or the date of the test. Students then have at most seven days to introduce a complaint regarding a grade (that means exactly two weeks after the deadline or the date of the test or assignment submission). I deal personally with all complaints. Requests must be placed in my mailbox on the 11th floor of IAB. I expect them to be specific and motivated. This means that you must include a copy of the question(s) that need(s) to be re-graded, a copy of your answer(s) and the relevant section of the answer key, and an explanation as to why the question(s) need(s) to be re-graded. If I find the request motivated, then I will re-grade the question(s) myself (which may possibly result in a lower grade if I find it justified). My decision is final. Please do not use either my or the TAs’ office hours to complain about grades.

Academic Dishonesty

As members of an academic community, each of us has a responsibility to participate in scholarly discourse and research in a manner characterized by intellectual honesty and scholarly integrity, and cheating on exams is a very serious violation. Any suspected case of cheating will be reported to the

university, and students who breach their intellectual responsibility in this regard should anticipate being asked to leave Columbia.

Class Conduct

Cell phone use is not allowed. Laptops are fine for taking notes, but please respect your classmates and instructor by limiting yourself to class-related activities. Though you may be a phenomenal multi-tasker, using a laptop for purposes other than taking notes is distracting to those around you

Topics

1. Introduction
2. Adverse Selection
 - a. Mechanism Design (**Salanie Chapter 2.1**)
 - b. Price discrimination with two types (**Salanie Chapter 2.2**)
 - c. Extension to more than two types (**Salanie Chapter 2.3**)
 - d. Extensions and Applications (**Salanie Chapter 3**)
3. Signaling
 - a. Market for Lemons (**Salanie Chapter 4.1**)
 - b. Costly Signaling (**Salanie Chapter 4.2**)
 - c. Equilibrium refinements
 - d. Cheap Talk (**Salanie Chapter 4.3**)
 - e. Bayesian Persuasion
4. Moral Hazard
 - a. An example with 2 actions and 2 outcomes (**Salanie Chapter 5.1**)
 - b. The standard model (**Salanie Chapter 5.2**)
 - c. Limited liability (**Salanie Chapter 5.3.3**)
 - d. Applications (**Salanie Chapter 5.4**)
5. The Dynamics of complete contracts (**Salanie Chapter 5**)