Course Description

The first part of this course provides a self-contained introduction to game theory. We study strategic games (with complete or incomplete information) and extensive games (with complete or incomplete information). We introduce several important solution concepts to make predictions.

The second part of this course is designed to apply game theory tools you learned in the first part to study the theory of incentives under asymmetric information. One key assumption of the competitive model is perfect information. Many market failures result from imperfect information and a unified body sometimes referred to as Information Economics has been built up over the last forty years. This work can be seen as a special case of games of incomplete information, but it is so central to modern economics that we offer a self-contained treatment.

Texts

Required textbook:

Other useful references:
- Osborne and Rubinstein (1994), A Course in Game Theory (OR).
- Salanie (1997), The Economics of Contracts: A Primer (SA).

Online lecture notes:
- Steve Tadelies: http://faculty.haas.berkeley.edu/stadelis/Econ_206_notes_2006.pdf

Problem Sets

There will be four problem sets. They will not be collected and graded. TA will go through them in Tutorial Sessions.
Grade

Your grade for this unit will be based on the final examination (time and location, TBA). Your grade in Eco 2030 will be the average of your grades in both units.

Topics

Adverse selection: lemons market (MWG Ch13, SA Ch2, JR Ch8)

Useful tools: envelope theorem, comparative statics, and stochastic order
- Shaked and Shanthikumar (2007), Stochastic Orders.

Signaling (MWG Ch13, SA Ch4, JR Ch8)

Moral hazard (MWG Ch14, SA Ch5, JR Ch8)

Screening: nonlinear pricing (MWG Ch13, SA Ch2-3, JR Ch8)

Mechanism design (MWG Ch23, JR Ch9)

Social choice (MWG Ch21, JR Ch6)