Intensive Course

The Economics of Information:
Incentive Problems, Contracts and Auctions

October 2005

Time: 9/10/2005 - 14/10/2005
Location: Schloss Neuburg am Inn
(Ph: 0049 8507 911 000 www.schlossneuburg.de)

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DESCRIPTION: This course will cover the basic elements of the economics of information. Economics of information examines the role of information in economic relationship. It is therefore an investigation into the role of imperfect and incomplete information. The nature of information economics as a field is perhaps best understood when contrasted with the standard general equilibrium theory. Information economics consists of a set of tools rather than a single methodology. Furthermore, the choice of tools is very issue driven. Frequently we will make use of the following tools:

- small number of participants;
- institutions may be represented by constraints;
- noncooperative (Bayesian) game theory;
- simple assumptions on bargaining: Principal-Agent paradigm.

The course will begin with a review of the classic problems of adverse selection, insurance and search. Then we will progress to more recent advances in information economics and emphasize contracts and, in particular, auction problems.

ORGANIZATION. The course will consist of two lectures in the morning of every day in which new material will be introduced. In addition, there will be daily problem sets and assigned readings for the afternoon. The day will end with a review session which will review the assigned problems and discussion the assigned readings. The review session will be lead by a group of students. All students are asked to complete the required reading before the sessions so that we can move swiftly to the important contributions of the material presented.
Schedule. The daily schedule will be:
9.00 - 10.15: 1st Lecture
10.15 - 10.45: Break
10.45 - 12.00: 2nd Lecture
14.00 - 18.00: Problem Set and Reading
20.00 - 21.00: Review

Literature. There are a number of recent textbooks on information economics. Every student of microeconomic theory should have access to:


The lectures will be partially based on the following two books which are strongly recommended for this course jointly with the above.

- B. Salanie. The Economics of Contracts. 1998. MIT Press (S)

Additionally, the following recent books address some of material covered in the lectures:


Program. The following program is a preliminary schedule for the ten lectures. The topics are separately listed for each lecture. They are followed by one, two, or three classic articles on the topic, the relevant textbook treatment and an applied/empirical paper using the theoretical insights.

1. Private Information, Adverse Selection, Market Inefficiency, Pooling Equilibrium, Separating Equilibrium, Insurance
   (c) S: Chapters 1 and 2.

2. Signalling, Limit Pricing
   (d) S: Chapter 4.

3. Search

(a) Sequential search: lecture notes.

4. Principal Agent Model, Moral Hazard

(c) S: Chapter 5.

5. Private Value Auctions, First and Second Price Auctions, Efficiency

(c) K: Chapters 2 and 3.

6. Common Value Auctions, Winner’s Curse, Oil Auctions, Interdependent Valuations

(c) K: Chapter 6.

7. Market Design, Identification Problem, Inference of Private Information


8. Optimal Auctions, Mechanism Design, Revenue Equivalence

(b) K: Chapter 5.


9. Double Auctions, Bilateral Trading, Market Inefficiency


10. Sequential Auctions, Multi-unit Auctions


(b) K: Chapters 12 and 15.