# Topics in Advanced Microeconomics, Winter Semester 2013/2014

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## **Course Description**

This course focuses on two particularly important areas of microeconomics: game theory and information economics. Game theory is an essential tool to understand agents' behaviour in settings of strategic interaction. The course starts by introducing basic concepts in game theory, and then discusses the main equilibrium concepts as well as their relevant refinements. Information economics deals (mostly) with situations where different agents have different information about the state of the world when they interact. The course analyzes the impact of asymmetric information on economic outcomes, with a special emphasis on economic efficiency. Last, but not least, the course covers optimal contracts in the presence of asymmetric information.

#### **COURSE OUTLINE**

- 1. Game Theory
  - 1.1. Concept of Game
  - 1.2. Simultaneous-Move Games
  - 1.3. Dynamic Games
  - 1.4. Notions of Equilibrium and Refinements
- 2. Information Economics
  - 2.1. The Competitive Equilibrium as a Benchmark Case
  - 2.2. Adverse Selection in Competitive Markets
  - 2.3. The Principal-Agent Problem: Hidden Actions
  - 2.4. The Principal-Agent Problem: Hidden Information

#### **BIBLIOGRAPHY**

Most of the content of the course is covered in the book *Microeconomic Theory*, by A. Mas-Collel, M. Whinston and J. Green, Oxford University Press, 1995. This is the main textbook. Other recommended books are: *Game Theory*, by D. Fudenberg and J. Tirole, MIT, 1991; and *The Theory of Incentives: the Principal-Agent Model*, by J.-J. Laffont and D. Martimort, Princeton University Press, 2001.

#### **SCHEDULE**

Monday, 20/01/14, 17:00-18:30, G 530 Tuesday, 21/01/14, 15:15-16:45, 17:00-18:30, ML 630 Thursday, 23/01/14, 17:00-18:30, F 424 Friday, 24/01/14, 17:00-18:30, F 420 Monday, 27/01/14, 17:00-18:30, C 424 Tuesday, 28/01/14, 15:15-16:45, 17:00-18:30, V 1001 Thursday, 30/01/14, 17:00-18:30, C 424 Friday, 31/01/14, 17:00-18:30, C 424

### ASSESSMENT

The final grade will be the weighted average of the following items: final exam (70%) and problem sets (30%).