

Course title	Advanced Microeconomics
Level / Semester	M1 / 2nd semester
Credits	
Director of Studies	Alex Smolin and David Martimort
Other teaching staff	
Teaching Hours CM	15+15
Teaching Hours TD	0
Teaching Hours TP	0
Course Language	English
Language for TD and/or TP	

1. Instructors:

Alex Smolin, alexey.v.smolin@gmail.com; Office hours: By appointment.

David Martimort, martimort.david@gmail.com; Office hours: By appointment.

2. Course description:

The first part of the course is to introduce some topics in game theory and its applications, especially about a class of games with incomplete information, and its applications. The target students are those who are in M1 and want to do research in economic theory and its applications.

The second part of the course discuss the Theory of the Firm, stressing the various contractual relationships that its management entertain with customers, regulators, shareholders, and debtholders.

3. Objective:

The goal of the first part is to make students familiar with some topics in games with incomplete information so that they can independently digest/evaluate academic papers in those or relevant topics.

The goal of the second part of the class is to familiarize students with the notion of the firm as a nexus of contracts.

4. Prerequisites:

Although there is no formal prerequisite, we would assume some basic mathematical knowledge (algebra, analysis, probability, etc). Also, basic knowledge of game/contract/mechanism design/contract theory would be helpful.

5. Evaluation:

Based on a few problem sets and a final exam. At most 30% of the grade is by the problem sets, and the rest is by the final exam. Also, too many late arrivals and non-attendance may affect the grade.

6. References:

Fudenberg and Tirole (1991), Game Theory, MIT Press.

Tadelis (2013), Game Theory: An Introduction, Princeton University Press.

Myerson (1991), Game Theory: Analysis of Conflict, Harvard University Press.

Laffont and Martimort (2002): The Theory of Incentives: The Principal-Agent Model, Princeton University Press

7. Course outline:

Part 1

(1) (Static) games of incomplete information, Bayesian equilibrium.

(2) Applications: Adverse selection in trading, Auctions, Information aggregation in markets, Global games.

Part 2

(3) The Firm and its regulator

(4) The Firm and its customers

(5) The Firm and its shareholders/debtholders Office hours: By appointment.