Bertrand Gobillard
Toulouse School of Economics, Office MS 103
bertrand.gobillard@tse-fr.eu

Niccolò Lomys
Toulouse School of Economics, Office MH 208
niccolo.lomys@tse-fr.eu

Economic Theory

Master 2 ETE, Winter 2019
Teaching Hours: Thursday 11:00–12:30 and 15:30–17:00
Office Hours: TBD
Course Language: English

Presentation. This is a course on economic theory taught by Niccolò Lomys (Parts I and IV) and Bertrand Gobillard (Parts II and III). Lectures will revolve around two main topics, (i) repeated interactions and (ii) bargaining and markets, and will be divided into four parts. Part I will focus on repeated games with perfect monitoring and imperfect public monitoring; this part will also introduce recursive methods useful to study other problems in economics. Part II will analyze models of bilateral bargaining, with both complete and (one-sided) incomplete information. Part III will be on "markets and the Walrasian outcome" under complete information and, depending on time, it may cover dynamic matching and bargaining games, price posting with imperfect information, and bilateral oligopolies. Part IV will focus on signaling games and reputations in repeated games.

Objective. The objective of the course is twofold: (i) To introduce students to some important topics in economic theory. (ii) To learn how to apply basic game theory tools and build rigorous reasoning using standard techniques in game theory.

Background. Basic knowledge of game theory (strategic form games, extensive form games, mixed strategies, Nash equilibrium, subgame perfect Nash equilibrium, Bayesian Nash equilibrium, perfect Bayesian Nash equilibrium) and a taste for rigorous analysis and theoretical thinking. *Remark:* Topics have been chosen so that, in order to follow the lectures, you don't need to know the content of "Microeconomics 2" on the economics of information and incentives, which is taught in parallel to our course.

References. Lectures will be based on important papers in the literature and on lecture notes you will have access to. Background references are:

1. Part I: Mailath and Samuelson (2006), *Repeated Games and Reputations: Long-Run Relationships*, Oxford University Press; Fudenberg and Tirole (1991), *Game Theory*, MIT Press.

2. Part II: Fudenberg and Tirole (1991), *Game Theory*, MIT Press; Myerson (1997), *Game Theory: Analysis of Conflict*, Harvard University Press; Osborne and Rubinstein (1990), *Bargaining and Markets*, Academic Press.

3. Part III: Osborne and Rubinstein (1990), *Bargaining and Markets*, Academic Press; Gale (2000), *Strategic Foundations of General Equilibrium: Dynamic Matching and Bargaining Games*, Cambridge University Press.

4. Part IV: Mas-Colell, Whinston, and Green (1995), *Microeconomic Theory*, Oxford University Press; Mailath and Samuelson (2006), *Repeated Games and Reputations: Long-Run Relationships*, Oxford University Press; Fudenberg and Tirole (1991), *Game Theory*, MIT Press; Mailath and Samuelson (2015), *Reputations in Repeated Games*, Chapter 4 in the Handbook of Game Theory with Economic Applications.

Grading. Final exam.