Laurea / B.A.
in Global Governance

Course Description
These Lectures are meant to support the student with basic game-theoretic instruments helpful to absorb elementary oligopoly strategic theory in the absence of uncertainty (topics 1 to 5) and the study of decision theory under uncertainty and contract theory to stimulate the right incentives in principal-agent models like managers- shareholders (topics 6 to 10). Each model will be introduced by the study of equilibrium concepts and their intuition will be reinforced by inter-disciplinary examples.

Teaching Method
Lectures will make use of oral presentations. Analysis will also be presented at the board, and used for open discussion. Interaction between teacher and student will be encouraged.

Schedule of Topics

Games of complete information

Topic 1	Bertrand, Cournot and first principles Static Game Theory
Topic 2	Von Stackelberg and first principles of Dynamic Game Theory
Topic 3	Strategic Moves
Topic 4	Strategic Product Differentiation
Topic 5	Strategic Entry Deterrence

Games of incomplete information

Topic 6	Expected Utility
Topic 7	Adverse Selection
Topic 8	Signaling
Topic 9	Moral Hazard
Topic 10	Contract Theory

Textbook and Materials
The teacher will refer the student, by the end of each one of the 6 weeks, to the relevant material on the basis of the following textbooks:

- Avinash Dixit and Barry Nalebuff, (1991) Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life, Norton.
- Prajit Dutta, Game Theory, MIT Press (2000).
- David M. Kreps, A Course in Microeconomic Theory, Princeton University Press, (1990).
- David M. Kreps, Microeconomics for Managers, Norton (2004).

Assessment

A final written examination at the end of:
- April
- May
- September

Every week, at the end of a block of lessons on a topic, the students will receive a take-home written problem set, not graded, whose solutions will be available on line by the end of the week. The following week there will be a written exam in class on the same topic, lasting 30 to 60 minutes immediately after the last day of classes. The final mark of the written part will be the sum of the 4 best marks out of the 5 obtained in each weekly exam: each mark is graded from 0 to 8. After the 6th week an oral exam will test the theoretical knowledge of the student. The oral exam will allow the student to increase its final grade by at most 3 points, decreasing it by at most 3 points. Only one "cum laude" may be given at the discretion of the professor.

Students who have not attended at least 15 lectures for the 2 hours will have to do a written exam in a 4 hour written exam.

Office hours

By appointment: gustavo.piga@uniroma2.it