Microeconomics
Game Theory Module
Prof. Dario Maimone Ansaldo Patti

E-mail: dmaimone@unime.it

Web: **www.dariomap.com**

Office Hours: By appointment

Lecture Time: 14/02 10am–3pm
15/02 10.00am–3pm
18/02 12pm-3pm

Office: Room 102
Building C – Department of Economics

Course Description

Game theory models conflict and cooperation between rational decision-making agents. It finds applications in a wide variety of areas, including statistical decision theory, artificial intelligence (online learning, multi-agent systems), economics and business (auctions, pricing, bargaining), biology (evolution, signaling behavior, fighting behavior), political science (stability of government, military strategy), and philosophy (ethics, morality and social norms).

This course is an introduction to game theory and strategic thinking. Ideas such as dominance, backward induction, Nash equilibrium and repetition in games are discussed and applied to games drawn from economics and politics.

Required Materials

Lecture notes will be available from the module website.

Useful readings:

- Kreps, D. (1990) [DK]. Game theory and economic modelling. Clarendon Press, Oxford

- Gibbons, R. (1992) [RG]. A primer in game theory. Prentice Hall

- Myerson, R. (1991)[RM]. Game theory. Analysis of conflict. Harvard University Press

- Fudenberg D. and J. Tirole (1991) [FT]. Game theory. MIT Press

- Varian, H. (1992) [HV]. Microeonomic Analysis. W. W. Norton &Company

- Mas-Colell, A., Whinston, M.D. and J.R. Green (1995) [MWG]. Microeconomic theory. Oxford University Press.

Prerequisites

There is no prerequisite for this course. However, a basic knowledge of statistics and mathematics would be useful.

Course Objectives

Successful students:

1. Characterize interaction among economic agents within a game-theoretical framework;

2. Define the equilibrium of the game;

3. Understanding the welfare implication of such an equilibrium.

Course Structure

Lectures

The course is structured in lectures and classes. In particular, the latter will be dedicated to the solution of games and to the analysis of specific cases drawn from economics and politics.

Assessments

Written examination. The exam paper will be structured in two parts:

1. General Microeconomics

2. Game theory

The final mark will be the aritmetic mean of the two parts above

Grading Policy

The grading policy will be consistent with the following scheme:

Grading

Mark	Grade
<50	F
50–55	D-
56–60	D
61–64	D+
65–68	C-
69–72	C
73–76	C+
77–80	B-
81–84	B
85–88	B+
89–92	A-
93–96	A
97–100	A+

Attendance Policy

Attendance is compulsory. Signature will be taken at the beginning of each lecture.

Lectures schedule

The schedule is tentative and subject to change.

Lecture 1: 14/02

- Introduction to games

- Classification of games

- Strategic dominance

- Solution of specific games

Lecture 2: 15/02

- Games with perfect information

- Nash Equilibrium solution concept

- Backward induction

- Solution of specific games

Lecture 3: 18/02

- Games with imperfect information

- Repeated games

- Solution of specific games