

University of the Mediterranean
Master 1
Academic year 2009-2010

1) Name of the course: Advanced Microeconomics

2) Instructors: Nicolas Gravel and Hubert Stahn

3) Objectives:

This course aims at acquainting the student with the analytical framework of **classical microeconomics**. Classical microeconomics describes the working of the economy as a whole under the assumption that all economic agents (households and firms) behave in a competitive setting in which all their interactions are summarized by a price system that they consider as given. This important model serves as a benchmark for almost all economic theories.

4) Prerequisites

This course takes for granted a basic knowledge of the standard microeconomic concepts (utility and demand functions, cost functions, etc.) as well as a familiarity with basic mathematical techniques (calculus, optimization, rudiments of real analysis).

5) Textbook: The following books are used as reference texts in various parts of the course.

G. Debreu « *A theory of Value* », New Haven, Cowles Commission foundation monograph, 1959.

D. M. Kreps « *A Course in Microeconomic Theory* », Princeton University Press, 1990.

H. R. Varian « *Microeconomic Analysis* », Third Edition, Norton, 1992

A. Mas-Colell, M. D. Whinston et J. R. Green (MWG) « *Microeconomic Theory* », Oxford University Press, 1995.

6) Evaluation and teaching organization

Teaching is done in a standard way (4 hours per week in two sessions of two hours each). Problem sets are given regularly to the student. While they are not graded, these problems are a particularly efficient way to prepare oneself for the final examination that will take place at the end of the term. For 50% of the final grade of the student in that course will result from the student's ability to solve some of these problems.

7) Course outline (48 hours)

Theme	Chapters and sections in the textbook
No: 1 The competitive firm (10 hours)	
- The neo-classical theory of the firm	
-Description of the technology: production sets and functions	Debreu, 3; Kreps, 7.1, Varian, 1; MWG, 5A,B
-Cost-minimizing and profit-maximizing behavior	Debreu, 3; Kreps, 7.2-6; Varian, 3.1-2, 5.4-6; MWG, 5C,5E
-Comparative statics	
-Applications	Varian, 12.7-10
No 2: The household in a certain competitive environment (10 hours)	
- The household in a private-ownership economy	Debreu, 4; Kreps, 2.1; Varian, 7; MWG, 16B.
- Household's preferences	Debreu, 4; Varian, 9;1, 17.1, 18,3; MWG, 3A-C
- Household's budget constraint	
- Duality	Kreps, 2.2-4, Varian, 7.3, 8.6-8.10; MWG, 3D-G
- Revealed preferences	
-Comparative statics	Varian, 2.4-5
-Aggregation	Varian 9.2-4; MWG, 4
-Applications	Varian, 12.1-6, 12.11
No 3: The household in an uncertain environment (4 hours)	
-Notion of contingents goods	Debreu 7;
-Risk vs Uncertainty	Kreps, 3.4
-The expected utility model	Kreps, 3.1; Varian 11.2; MWG, 6B,C.
- Risk aversion and demand for insurance	Kreps, 3.2-3; Varian, 11.5-7; MWG, 6C.
-Limitations of the existing models	Kreps, 3.5;
No 4:Competitive equilibrium: a partial equilibrium approach (8 hours)	
-The basic definition	MWG, 10A-B
- A partial equilibrium approach	MWG 10 C
- The Surplus as a measure of welfare	MWG 10 D-E
- The limits of partial equilibrium analysis	
No 5 :General Equilibrium and welfare (6 hours)	
-The first welfare theorem	MWG 16C
-The second welfare theorem	MWG 16D
-The first order conditions of Pareto-optimality	MWG 16F
No 6 : The Walrasian equilibria of an exchange economy (10 hours)	
-The excess demand and its properties	MWG 17D
- Existence : a fixed point approach	MWG, 17A-B
- Regularity, local uniqueness and the index theorem	MWG 17C
-:Could we say more ?	MWG 17E
- Some remarks on global uniqueness and stability	MWG, 17F-H