

BGPE

MICROECONOMICS

April 2012

Course Outline :

Part I. Classical Microeconomics and General Equilibrium Theory.

Day 1.

1. Some Mathematics: basic nonlinear programming; Kuhn and Tucker's Theorem.
2. Demand Theory: Preferences and Utility; Duality Theory: Marshallian and Hicksian demand; Slutsky equations. Profit maximization.
3. Exercises and applications.

Day 2.

1. Introduction to Decision Theory. Expected Utility Theory: Construction of Von Neumann Morgenstern utilities. Risk aversion.
2. Arrow-Debreu Private Property Economies; Pareto Optima.
3. Exercises and applications

Day 3.

1. General Competitive Equilibrium; First Theorem of Welfare Economics.
2. Decentralization; Second Theorem of Welfare Economics; Some extensions: externalities, contingent goods and asset markets.
3. Exercises and applications

Part II. Game Theory.

Day 4.

1. Games in Normal Form; pure and mixed strategies; Nash equilibrium.
2. Games in Extensive Form (with perfect information); Backwards Induction Principle; Subgame Perfection.
3. Exercises and applications. Oligopoly, etc.

Day 5.

1. Repeated Games; Folk Theorems.
2. Bayesian Games. Harsanyi's model.
3. Exercises and applications. Auction Theory, etc.

References:

David Kreps (1990), *A Course in Microeconomic Theory*, Harvester Wheatsheaf, pub.

Andreu Mas-Colell, Michael Whinston and Jerry Green, (1996), *Microeconomic Theory*, Oxford University Press.

Martin Osborne and Ariel Rubinstein (1994), *A Course in Game Theory*, MIT Press.