

Module II - Microeconomics

Academic Year 2013-2014

The course provides a basic overview of fundamental microeconomic questions in the contemporary economic debate. It is divided in two parts: the first one proposes some basic game theoretical tools to analyze relevant firms' decisions in markets for production. The second part investigates how information influences economic decisions and outcomes, with particular attention to the financial aspects of firm's activities. Topics include moral hazard and adverse selection in static frameworks. Each model's result will be discussed in the light of relevant economic examples.

Course programme

Week 1 & 2

Strategic decision: Game Theory

Normal form games: Nash equilibrium

Application 1: Cournot Oligopoly

Application 2: Bertrand Oligopoly with imperfect substitutes

Application 3: Bertrand Oligopoly with a homogeneous good

Application 4: Edgeworth Duopoly

References: Gibbons Chp. 1 (Exclude par 1.1.C, 1.2.C, 1.2.D), Theorems and Proofs can be skipped. Supplementary material available on-line

Week 3

Extensive form games: Subgame Perfect Nash Equilibrium

Application1: Stackelberg Oligopoly

Application 2: Diamond-Dybvig economy

Application 3: Entry games

References: Gibbons Chp. 2 (Exclude par 2.1.C, 2.1.D, 2.2.C, 2.2.D, 2.3), Theorems and Proofs can be skipped.

Week 4

Subgame Perfect Nash Equilibrium in mixed strategies

Monopoly with a unique price: positive and normative analysis

Price discrimination in a monopolistic industry

Introduction to Principal-Agent models

Price discrimination by a monopolist: the case of symmetric information

References: Salaniè: Introduction, Chp.2 par. 2.2. McAfee: par. 1-2.1

Week 5

Monopoly pricing: the textbook case without discrimination

Price discrimination by a monopolist: the case of asymmetric information

Again on price discrimination: two-part tariff

References: Salaniè: Introduction, Chp.2 par. 2.2. McAfee: par. 1-2.1; Tirole chp.3 until par. 3.3.1.4 (exclude 3.2).

References

Gibbons R., (1992) "A primer in Game Theory", Harvester Wheatsheaf.

Salaniè B., (2005) "The Economics of Contrats. A primer", MIT Press.

Tirole, J. (1997) "The Theory of Industrial Organization", MIT Press.

Preston McAfee (2006), Lectures on pricing, California Institute of Technology, freely downloadable online

Readings

Dixit A. and Nalebuff B., (1991) *Thinking Strategically: The Competitive Edge in Business, Politics and Everyday Life*, Norton.

Van Zandt T. (2012), *Firms Prices and Markets*, freely downloadable online.

Additional supplementary readings will be indicated as the course goes on. The course instructor will provide indications to download the articles, and the pdf of the article whenever possible.

As a general reference for any prerequisite in microeconomics: Varian H. (2010) *Intermediate Microeconomics*, 8^o edition, W. W. Norton & Company.