

MICROECONOMICS II
(module 36124)

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Course description and objectives

The course examines *firm behaviour* in the first three lessons. To pick a level of output that maximizes its profit, a firm must consider its cost function and how much it can sell at a given price. The amount the firm thinks it can sell depends in turn on the market demand of consumers and its beliefs about how other firms in the market will behave. The behaviour of firms depends on the *market structure*. Lesson 4 studies the interactions of firms in a competitive market; lessons 5 and 6 examine the behaviour of firms with market power when there is only one supplier (monopoly in lesson 5) and when there are several suppliers (oligopoly in lesson 6).

The course requires a good command of basic algebra (systems of linear equations) and basic calculus (unconstrained and constrained optimization analysis, equilibrium analysis and comparative statics analysis). Upon completion of the course, students should be able to conceptualise simple microeconomic issues and understand the analytical reasoning underlying microeconomic analysis. Students should understand the topics covered on several different levels: mathematical as well as graphical and heuristic or verbal. They should have a critical appreciation of the approach taken to economic issues and policies.

Structure of the course and course materials

The structure of the course consists of lectures (on Tuesdays, room S313), classes (on Thursdays, room S207), two assignments, a midterm exam and a final exam. Lectures will cover the presentation of the concepts, the theories and the modelling of both competitive and non-competitive markets; exercises will be solved during classes.

Course materials (notes, slides, problem sets and assignments) are available at my website (www.uv.es/rmoner).

The textbook employed in this course is

Hal Varian, *Intermediate Microeconomics: A Modern Approach*, seventh edition, W.W. Norton and Company, 2005.

Other textbooks that cover the material explained in the course are

J. Perloff, *Microeconomics*, 4th edition, Pearson international edition, 2007.

R. Pindyck and D. Rubinfeld, *Microeconomics*, seventh edition, Prentice-Hall, 2008.

Grading

The plan is to spend two (or two and a half) lectures/classes per lesson. The assignments are due for Thursday 22nd of March and for Thursday 24th of May. The mid-term test exam is scheduled for Thursday 22nd of March. See below for the details.

The grade of the course will be divided into 30% for two problem set assignments, 10% for a mid-term test exam that covers lessons 1 to 3, and 60% for the final exam. At least 40% of the final exam grade is necessary to pass the course.

A student not taking the mid-term exam can get 90% of the final grade.

Program

► LESSON 1. TECHNOLOGY.

• Inputs and outputs • Describing technological constraints • Examples of technology • Properties of technology • The marginal product • The technical rate of substitution • Diminishing marginal product • Diminishing technical rate of substitution • The long run and the short run • Returns to scale

Varian, chapter 18.

► LESSON 2. PROFIT MAXIMIZATION.

• Profits • Profits and the stock market • Fixed and variable factors • Short run profit maximization • Comparative statics • Long run profit maximization • Inverse factor demand curves • Profit maximization and returns to scale

Varian, chapter 19.

► LESSON 3. COST MINIMIZATION AND COST CURVES.

• Cost minimization: isocost lines and conditional factor demands • Returns to scale and the cost function • Long-run and short-run costs • Cost curves: average costs and marginal costs • Long-run costs

Varian, chapters 20-21.

► LESSON 4. FIRM SUPPLY AND INDUSTRY SUPPLY.

• Market environments • Pure competition • The supply decision of a competitive firm • Profits and producer surplus • The long-run supply curve

- of a firm • Short-run industry supply • Industry equilibrium in the short run
- Industry equilibrium in the long run • The long-run supply curve

Varian, chapters 22-23.

► LESSON 5. MONOPOLY

- Maximizing profits • Markup pricing • Inefficiency of monopoly • Natural monopoly • Price discrimination • Monopolistic competition

Varian, chapters 24-25.

► LESSON 6. OLIGOPOLY

- Quantity competition: Cournot • Iso-profit curves • Collusion • Quantity leadership: Stackelberg • Simultaneous price setting: Bertrand • Price leadership

Varian, chapter 27.

Course outline

- Week 1 (Feb 6-10) Lesson 1
- Week 2 (Feb 13-17) Lesson 1
- Week 3 (Feb 20-24) Lesson 2
- Week 4 (Feb 27-March 2) Lesson 2
- Week 5 (March 2) Lesson 3
- Week 6 (March 5-9) Lesson 3
- Week 7 (March 12-16) Lesson 3

Assignment due March 22nd

Mid term exam March 22nd

- Week 8 (March 26-30) Lesson 4
- Week 9 (April 2- 6) Lesson 4
- Week 10 (April 17-20) Lesson 5
- Week 11 (April 23-27) Lesson 5
- Week 12 (April 30- May 4) Lesson 5-6
- Week 13 (May 7-11) Lesson 6
- Week 14 (May 14-18) Lesson 6
- Week 15 (May 21-25) Review

Assignment due May 24th

Final exam June 15th / July 13th.