# uc3m Universidad Carlos III de Madrid

## Microeconomic Theory

Academic Year: (2019 / 2020) Review date: 11-05-2020

Department assigned to the subject: Economics Department

Coordinating teacher: CELENTANI, MARCO
Type: Compulsory ECTS Credits: 6.0

Year: 2 Semester: 2

#### **OBJECTIVES**

The goal of this course is to familiarize students with the methodology for the analysis of equilibrium and efficiency in exchange economies, in production economies and in environments with external effects. To reach this goal students need to master a set of analytical tools, develop a set of skills and reach an analytical proficiency that are described in the following: (i) Students will need to master the concepts of equilibrium and efficiency, will understand their use in economic analysis and will comprehend how to apply them to analyze economic problems; (ii) In terms of specific abilities, students will be able to carry out formal analyses of economic problems; (iii) In terms of general abilities, students will develop their analytical ability ad their abilities to carry out critical analyses. (iv) Students will finally need to reach sufficient proficiency in the solution of complex problems.

#### **DESCRIPTION OF CONTENTS: PROGRAMME**

- 1. Equilibrium and efficiency in pure exchange economies
- (a) Partial equilibrium vs. general equilibrium
- (b) Efficiency
- (c) Equilibrium
- i. Definition
- ii. Walras's Law
- (d) First and Second Welfare Theorem
- (e) Examples
- 2. Equilibrium and efficiency in production economies
- (a) Efficiency
- i. Definition
- ii. An example with decreasing returns to scale technologies
- (b) Equilibrium
- i. Definition
- ii. An example with decreasing returns to scale technologies
- (c) First and Second Welfare Theorem
- (d) Examples
- i. A small open economy
- ii. Constant returns to scale technologies
- iii. A representative agent economy
- 3. Externalities
- (a) Definitions: Externalities, equilibrium and efficiency
- (b) Private responses to externalities
- i. Bargaining: Property rights, bargaining power, efficiency and distribution
- A. Not quasilinear preferences
- B. Quasilinear preferences
- ii. Exchange: Property rights, efficiency and distribution
- A. Not quasilinear preferences
- B. Quasilinear preferences
- C. Coase theorems
- D. First and second welfare theorems
- (c) Public responses to externalities: Efficiency and distribution
- i. Property rights
- ii. Taxes and subsidies
- iii. Licenses

#### LEARNING ACTIVITIES AND METHODOLOGY

Teaching methodology includes:

- 1. Lectures in which the analytical tools will be presented and discussed. Students will need to make extensive use of references to assist their learning as well as to delve deeper into the issues and problems which interest them most.
- 2. Discussion sections in which the resolution of problems and the discussion of example will make it possible to fully comprehend the analytical Tools presented in the lectures.
- 3. Quizzes that will be used to assess the learning process.

#### ASSESSMENT SYSTEM

The evaluation depends on continuing evaluation (40%) and the final exam (60%).

% end-of-term-examination: 60 % of continuous assessment (assignments, laboratory, practicals...): 40

### **BASIC BIBLIOGRAPHY**

- A. Goolsbee, S. Levitt, C. Syverson Microeconomics, Worth Publishers, 2013
- H. Varian Intermediate microeconomics: A modern approach, W. W. Norton & Co., 2014
- J. Hey Intermediate microeconomics, McGraw-Hill, 2003
- R. S. Pindyck, D. L. Rubinfeld Microeconomics, Pearson, 2012
- R. Serrano, A. Feldman A short course in intermediate microeconomics with calculus, Cambridge University Press, 2013
- Thomas J. Nechyba. Intermediate microeconomics an intuitive approach with calculus. , CENGAGE. , 2018
- W. Nicholson Microeconomic theory: Basic principles and extensions, Shut-Western College Publishing, 2011