Microeconomics

MASTER'S DEGREE IN ECONOMICS AND FINANCE

UNIVERSIDAD INTERNACIONAL MENÉNDEZ PELAYO

GENERAL DATA

Name

Microeconomics

Code

102661

Academic year

2024-25

Degree

MASTER'S DEGREE IN ECONOMICS AND FINANCE

ECTS Credits

6

Type

MANDATORY

Duration

Cuatrimestral

Language

English

CONTENTS

Contents

This course studies the behavior of the fundamental microeconomic agents -consumers and producers- and revises the main results of competitive general equilibrium theory. Likewise, this course provides a rigorous introduction to game theory with complete information.

COMPETENCES

General competences

G1 - Demonstrate solid knowledge of economic theory, and the relevant economic, econometric and computational techniques.
G2 - Know how to apply the knowledge acquired and be able to use problem-solving abilities in new or relatively unknown settings within wider or multidisciplinary contexts related to economics and finance.
G3 - Integrate knowledge and tackle the complexity involved with making judgements based on incomplete or limited information, and which includes reflections on the social and ethical responsibilities tied to the application of one's knowledge and judgement.
G4 - Critically analyse, assess and summarise new and complex ideas related to empirical theories and methodologies in the field of economics.
G5 - Design and carry out an advanced academic research project, formulating reasonable hypotheses in the field of economics.
G6 - Give clear and unambiguous oral presentations of scientific and technical work on economics to specialised and non-specialised audiences.
G7 - Produce suitable written compositions, as well as work projects or scientific articles.
G8 - Organise and plan one’s own work, fostering initiative and an entrepreneurial spirit.
G9 - Become part of work groups dedicated to economic research projects.
G10 - Demonstrate sufficient independence, and study and summary skills so that after the master’s programme, students are able to undertake a PhD in the field of economics.

Specific competences

EO7 - Be aware of advanced theories and models on modern macroeconomics.
ET2 - Have an in-depth knowledge of how fundamental microeconomic actors, consumers and producers behave, and the main results of the concept of general competitive equilibrium. Possess basic knowledge in game theory with complete information.
ET3 - Be aware of the main modern information economy models, based on analysis of choices in situations of uncertainty and game theory with incomplete information.
ET4 - Have basic knowledge of macroeconomics through structure analysis and what the main reference models imply.
ET5 - Possess the necessary statistical knowledge to be able to follow econometrics courses and topics with statistical content from other courses on the programme, with regard to the basic concepts of probability theory, inference and asymptotic theory, with particular reference to regression models.
ET6 - Know the main estimation and inference models and methods used in econometrics, both for time series, and cross-cutting and panel data.

LEARNING PLAN

Training activities

Type of activity	Hours	% In person
Theory classes		100
Practical classes		100
Study of the theory content of the course		0
Solve practical exercises		0
Prepare class presentations		40

Teaching methods

Theory classes
Exercises
Essay writing
Class discussion on work submitted by students

Learning outcomes

Rigorous and full knowledge of the main mathematical methods used in economics.
Have an in-depth knowledge of how fundamental microeconomic actors, consumers and producers behave, and the main results of the concept of general competitive equilibrium.
Possess basic knowledge in game theory with complete information.
Be aware of the main modern information economy models, based on analysis of choices in situations of uncertainty and game theory with incomplete information.
Have basic knowledge of macroeconomics through structure analysis and what the main reference models imply.
Possess the necessary statistical knowledge to be able to follow econometrics courses and topics with statistical content from other courses on the programme, with regard to the basic concepts of probability theory, inference and asymptotic theory, with particular reference to regression models.
Know the main estimation and inference models and methods used in econometrics, both for time series, and cross-cutting and panel data.

EVALUATION

Evaluation system

Type	Minimum score	Maximum score
Exercises	0.05	0.3
Presentations	0.05	0.15
Exams	0.7	0.95

Official examination dates

Academic schedule

FACULTY

Coordinator/s

Caruana Húder, Guillermo

Catedrático de Economía, Boston University
Profesor de Economía
Centro de Estudios Monetarios y Financieros (CEMFI)

Lecturers

Porfessor responsible for the subject

SCHEDULE

Schedule

Monday (09.30-13.00) and Thursday (11.30-13.00)

BIBLIOGRAPHY AND LINKS

Bibliography

Basic bibliography
A. Mas-Colell, M. Whinston and J. Green (1995), Microeconomic Theory, Oxford University Press. (MWG)
D. Kreps (1991), A Course in Microeconomic Theory, Harvester Wheatsheaf.
H. Varian (1992), Microeconomic Analysis, 3rd edition, W. W. Norton and Company.

Game Theory
R. Gibbons (1992), A Primer in Game Theory, Harvester Wheatsheaf. (also available in Spanish).
M. Osborne (2004), An Introduction to Game Theory, ch. 1-7.
K. Binmore (1991), Fun and Games, D.C. Heath.
D. Fudenberg and J. Tirole (1991), Game Theory, MIT Press, ch 1-5.

1 Consumer Choice and Demand Theory (2.5 weeks)
1. Objects of choice, Constraints and Preferences.
2. Utility Maximization: Walrasian Demand and the Indirect Utility Function.
3. Expenditure Minimization: Hicksian Demand and the Expenditure Function.
4. Main Results. Duality

References:
MWG 1.B, 2.B-D, and 3.A-H.
A. Deaton and J. Muellbauer (1980), Economics and Consumer Behaviour, Cambridge University Press, ch. 1 and 2.
J. Green and W.P. Heller (1981), "Mathematical Analysis and Convexity with Applications to Economics", Handbook of Mathematical Economics, ch. 1.

2 Other Demand Topics (1.5 weeks)
1. Excess Demand Functions.
2. Intertemporal Choice: Consumption, Saving and Interests Rates.
3. Composite Good Theorem.
4. The neoclassical model of labour supply.
5. Compensating Variation, Equivalent Variation and Consumer Surplus.
6. Aggregated Demand Theory.

References:
A. Deaton and J. Muellbauer op. cit., ch. 4, 5, 6, 7, 8, 12.
MWG 3.I and 4.A,B and D.
G. Becker (1993), \Nobel Lecture: The Economic Way of Looking at Behavior", Journal of Political Economy, pg. 385-409.

3 Production Theory (1 week)
1. Objects of choice, Constraints and Preferences.
2. Profit Maximization: Supply Correspondence and Profit Function.
3. Cost Minimization: Conditional Factor Demand Correspondence and Cost Function.
4. Production Aggregation.
5. What is a Firm?

References
MWG 5.A, B, C, D, E and G.
D. Kreps op. cit., ch. 7 and 19.
R. H. Coase (1937) \The nature of the Firm, "Economica N. S. Reprinted by Williamson and Sidney; \The Nature of the Firm: Origins, evolution, and development." Oxford University Press, 1991, pages 18-33.

4 General Equilibrium Theory and the Fundamental Theorems of Welfare Economics (2 weeks)
1. Definitions. Pareto Efficiency and Competitive Equilibrium Concepts.
2. Pure Exchange Economy: Edgeworth Box..
3. Competitive Equilibrium Existence.
4. First and Second Fundamental Theorems of Welfare Economics.
5. Uniqueness.

References
MWG 15.B and C; MWG.16.A-D and G; and 17.A-C, E and F.
G. Debreu (1959), The Theory of Value, Antoni Bosch.
K. Arrow and F. Hahn (1971), General Competitive Analysis. Holden Day.

5 Static Games of Complete Information (1 week)
1. Introduction and Definitions.
2. Solution Concepts. Nash Equilibrium.
3. Existence of a Nash Equilibrium.
4. Applications.

References
Gibbons ch. 1.
MWG 8.A,B,D. Read 8.C and 8.F
Osborne ch. 2-4.
Fudenberg and Tirole ch. 1 and 2 (pretty advanced for us).

6 Dynamic Games of Complete Information (2 weeks)
1. Extended Form Games.
2. Subgame Perfect Equilibrium.
3. Repeated Games: Basic Results and Applications.

References
Gibbons ch. 2.
MWG 7.C, 9.B.
Osborne ch. 5-7.
Fudenberg and Tirole cap. 3,4 and 5 (advanced).
Greif, Milgrom and Weingast (1994) \Commitment and Enforcement. The case of the Merchant Guild," Journal of Political Economy.