

**Economics II**

Code: 40096  
ECTS Credits: 15

Degree	Type	Year	Semester
4313805 Economic Analysis	OB	1	2

**Contact**

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**Use of languages**

Principal working language: english (eng)

**Teachers**

Francisco Obiols Homs  
Luis Eduardo Rojas Dueñas

**External teachers**

Ramón Caminal

**Prerequisites**

No specific prerequisites.

**Objectives and Contextualisation**

This module covers the second part of the core in modern microeconomics and macroeconomics. The topics seen in this module are the foundation to the models that are used in advanced microeconomics and macroeconomics. The section on microeconomics formally demonstrates, through advanced mathematical techniques, the existence of a general equilibrium and its properties, discussing the fundamental theorems of welfare economics. This section also discusses cases where classical assumptions fail and its consequences. The section on macroeconomics studies mathematical models of general equilibrium under uncertainty and their implications for asset evaluation. This section also provides the student with dynamic programming techniques; these techniques are the necessary tools for solving dynamic models.

**Skills**

- Capacity to articulate basic economic theory, analytically deriving them from mathematical reasoning
- Conceptually analyse a specific economic problem using advanced analytical tools
- Express recommendations about economic policy at macro and micro levels
- Make independent judgements and defend them dialectically
- Possess and understand knowledge that provides a basis or opportunity for originality in the development and/or application of ideas, often in a research context
- Student should possess the learning skills that enable them to continue studying in a way that is largely student led or independent

- Students should know how to communicate their conclusions, knowledge and final reasoning that they hold in front of specialist and non-specialist audiences clearly and unambiguously
- Use new technology for the collection and organisation of information to solve problems in professional activities

## **Learning outcomes**

1. Distinguish between general and partial equilibrium models
2. Frame an economic question in a general equilibrium mathematical model and know how to derive and understand the conclusions deriving from it
3. Know the neoclassical assumptions and describe their implications for the behaviour of an aggregate market and for the behaviour of economic aggregates
4. Make independent judgements and defend them dialectically
5. Make recommendations based on general equilibrium models
6. Possess and understand knowledge that provides a basis or opportunity for originality in the development and/or application of ideas, often in a research context
7. Student should possess the learning skills that enable them to continue studying in a way that is largely student led or independent
8. Students should know how to communicate their conclusions, knowledge and final reasoning that they hold in front of specialist and non-specialist audiences clearly and unambiguously
9. Use new technology for the collection and organisation of information to solve problems in professional activities

## **Content**

### **Macroeconomics II**

1. Life--Cycle Permanent--Income Framework
2. Competitive general equilibrium under uncertainty and the valuation of contingent claims
3. Dynamic Programming under Certainty
4. Numerical Methods for DP problems
5. Dynamic Programming under Uncertainty

### **Microeconomics II**

6. Introduction to General Equilibrium
7. Equilibrium and its Basic Welfare Properties
8. The Positive Theory of Equilibrium
9. The Core and Equilibria
10. Market Power
11. Adverse Selection, Signaling and Screening
12. The Principal Agent Problem

## **Methodology**

- Theory classes
- Practice classes

- Learning based on problem solving
- Tutorials
- Personal study
- Study groups
- Textbook reading
- Paper reading

## Activities

Title	Hours	ECTS	Learning outcomes
<b>Type: Directed</b>			
Personal study, study groups, textbook readings, article readings	187.5	7.5	1, 2, 3, 4, 5, 6, 7, 8, 9
Theory classes	112.5	4.5	1, 2, 3, 4, 5, 6, 7, 8, 9
<b>Type: Supervised</b>			
Problems sets, tutorials	75	3	1, 2, 3, 4, 5, 6, 7, 8, 9

## Evaluation

Final Exams	80%
Class attendance and active participation	10%
Problem sets and assignments	10%

## Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Class Attendance and Problem sets and assignments	20%	0	0	1, 2, 3, 4, 5, 6, 7, 8, 9
Final Exams	80%	0	0	1, 2, 3, 4, 5, 6, 7, 8, 9

## Bibliography

1. Recursive Methods in Economic Dynamics by Stokey, Lucas, with Prescott (SLP), Harvard University Press (1989).
2. Recursive Macroeconomic Theory by Lars Ljungqvist and Thomas Sargent (LS), MIT Press (2004).

3. Mas--Colell, A, M. Whinston and J. Green "Microeconomic Theory", Oxford University Press, 1995.