

**Economics II**

Code: 40096  
ECTS Credits: 15

Degree	Type	Year	Semester
4313805 Economic Analysis	OB	1	2

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

**Contact**

Name: Francisco Obiols Homs  
Email: Francesc.Obiols@uab.cat

**Use of Languages**

Principal working language: english (eng)

**Teachers**

Francisco Obiols Homs

**External teachers**

Alexander Ludwig  
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.

**Competences**

- 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

### Microeconomics II

#### FIRST PART: COMPETITIVE GENERAL EQUILIBRIUM THEORY

1. Introduction
2. Welfare Properties of Competitive Equilibrium
3. The Positive Theory of Equilibrium: Existence, Uniqueness and Stability
4. The Core

#### SECOND PART: MARKET FAILURES

5. Market Power: Monopoly, Oligopoly, Monopolistic Competition, Product Differentiation, Collusion
6. Hidden information: Adverse Selection, Signaling and Screening
7. Hidden Action: The Principal-Agent Model

### Macroeconomics II

1. Asset pricing (L-S 2004 chapter 13).
2. OLG with money (B-F 4.1-4.2)
3. Sidrauski model
  - a. A canonical MIU model (W 2.1-2.3)
  - b. Dynamics and solution of the model (W 2.5,2.7 -- B-F 5.Appendix)
  - c. Bubbles and hyperinflations (BF 5.1-5.3)
4. Cash-in-Advance model (W 3.3)
5. Kiyotaki-Wright search theory (W 3.4.2)
6. Imperfect information: Lucas' Islands model

7. New-Keynesian monetary model (W 5 -- B-F 8)
8. Monetary and fiscal policy (BF 11 -- LS 24.2.2-24.6)

### Macroeconomics III

1. Introduction to the course. The NMG with heterogeneous agents: the case of efficient economies and perfect aggregation. Efficient allocations and the Negishi approach.
2. A motivation for the interest in the IM model. A theoretical decision problem with idiosyncratic uncertainty and IM. The recursive formulation and properties of decision rules. A notion of constrained efficiency.
3. Transition functions and associated operators. The general equilibrium of the IM model. The case of endogenous labor: labor income risk becomes endogenous.
4. Constrained efficiency under IM a la DHKRR. Optimal income taxation with commitment (Chamley/Judd).
5. The primal approach to optimal policy. Revisiting optimal income taxation in IM economies.
6. The indivisible labor model. Models of the labor market: basic search and matching. Aiyagari and Huggett meet Mortensen and Pissarides.
7. Heterogeneous firms: the Lucas model of the "span of control". An application to assess the effects of size dependent policies.

## 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
Type: Directed			
Theory classes	112.5	4.5	5, 3, 1, 4, 2, 8, 7, 6, 9
Type: Supervised			
Problems sets, tutorials	75	3	5, 3, 1, 4, 2, 8, 7, 6, 9
Type: Autonomous			
Personal study, study groups, textbook readings, article readings	187.5	7.5	5, 3, 1, 4, 2, 8, 7, 6, 9

## Assessment

Final Exams	50%
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Class attendance and active participation	20%
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Problem sets and assignments	30%
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A module consists of different courses which are evaluated through final exams, problem sets and assignments and other class activities such as class attendance, presentations, etc.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Class Attendance and Problem sets and assignments	50%	0	0	5, 3, 1, 4, 2, 8, 7, 6, 9
Final Exams	50%	0	0	5, 3, 1, 4, 2, 8, 7, 6, 9

## Bibliography

Ljungqvist, L., and T. Sargent (2018): Recursive Macroeconomic Theory, MIT press.

Stokey, N. L., and R. E. Lucas (1989): Recursive Methods in Economic Dynamics, Harvard University Press.

Recursive Macroeconomic Theory by Lars Ljungqvist and Thomas Sargent (LS), MIT Press (2004).

Monetary Theory and Policy by Carl Walsh (W), MIT Press (2003).

Lectures on Macroeconomics by Olivier Blanchard and Stanley Fischer (B-F)

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