UAB
Universitat Autònoma de Barcelona

Economics I

Code: 40095
ECTS Credits: 15

2025/2026

Degree	Type	Year
Economic Analysis	OB	1

Contact

Name: Amedeo Stefano Edoardo Piolatto

Email: amedeo.piolatto@uab.cat

Teachers

Francisco Javier Vila Carnicero

Javier Fernandez Blanco

Teaching groups languages

You can view this information at the end of this document.

Prerequisites

No specific prerequisits

Objectives and Contextualisation

This module introduces, in a formal and analytical way, the basic principles of microeconomics and macroeconomics. The student learns how to analyze economic problems and derive their implications using techniques and tools that are typical of mathematical sciences. Microeconomics focuses both on consumer and production decision theory. Macroeconomics focuses on advanced analytical tools that are necessary for the analysis of dynamic problems.

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

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- 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. Analyse the advantages and disadvantages of neoclassical assumptions
2. Frame an economic decision-making question in a simple strategic context in a mathematical problem and derive the answer using mathematical logic
3. Interpret the modelling of a classical problem, the conclusion deriving from it and its limitations
4. Make independent judgements and defend them dialectically
5. 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
6. Propose a simple economic problem in an analytical manner
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

I. Microeconomics

1. Consumer theory

2. Choice under uncertainty

3. Theory of the firm

II. Macroeconomics

1. Deterministic neoclassical growth model

2. Dynamic programming

3. Stochastic models

4. Overlapping generation models

For a detailed description of the content of this module go to
https://sites.google.com/view/idea-program/master-program .

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			

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

The course will consist of sessions where the instructor presents the material, and sessions specifically dedicated to problem solving. Students are encouraged to form study groups to discuss assignments and readings.

The proposed methodology may undergo some modifications according to the restrictions imposed by the health authorities on on-campus courses.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Class Attendance and Problem sets and assignments	20%	0	0	1, 4, 2, 3, 6, 8, 7, 5, 9
Exam Part I	40%	0	0	1, 4, 2, 3, 6, 8, 7, 5, 9
Exam Part II	40%	0	0	1, 4, 2, 3, 6, 8, 7, 5, 9

This modul does not contemplate an evaluation from a single comprehensive exam

Exam Part I	40%
Exam Part II	40%
Problem sets, assignments & Class attendance and active participation	20%

The proposed evaluation activities may undergo some changes according to the restrictions imposed by the health authorities on on-campus courses.

In this course, the use of Artificial Intelligence (AI) technologies is not permitted in any of its phases. Any work that includes fragments generated with AI will be considered a breach of academic honesty and may result in a partial or total penalty to the activity's grade, or more severe sanctions in serious cases.

Bibliography

Microeconomics:

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

Jehle, G.A., P. J. Reny, Advanced Microeconomic Theory (Third Edition). Prentice hall

Macroeconomics:

Krueger, D., Macroeconomic Theory, teaching manuscript

Ljungqvist, L. and T. Sargent, Recursive Macroeconomic Theory, MIT Press

Stokey, N. L. and R. E. Lucas, Jr., Recursive Methods in Economic Dynamics, Harvard University Press.(CP) Cooley, T. F. and E. C. Prescott, Economic Growth and Busines Cycles, in Cooley, T.F. (ed.) Frontiers of Business Cycle Research, Princeton University Press

King, R. G., C. I. Plosser, and S. T. Rebelo, Production Growth and Business Cycles. I. The Basic Neoclassical Growth Model, Journal of Monetary Economics, 21, pp. 195-232

Krusell, P., L. E. Ohanian, J.-V. Ríos-Russ, and G. L. Violante, Capital-Skill Complementarity and Inequality: A Macroeconomic Analysis, Econometrica, 68 (5), pp. 1029-1053

Additional references will be provided during the course.

Software

- Matlab
- R
- Phyton
- Stata

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this link. To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PLABm) Practical laboratories (master)	30	English	first semester	morning-mixed
(TEm) Theory (master)	30	English	first semester	morning-mixed