

**Macroeconomics III**

Code: 102382  
ECTS Credits: 6

Degree	Type	Year	Semester
2501572 Business Administration and Management	OT	4	2
2501573 Economics	OB	3	2

## Contact

Name: Luis Eduardo Rojas Dueñas

Email: luis.rojas@uab.cat

## Teaching groups languages

You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

## Prerequisites

Introduction to Economics.

Mathematics I.

Mathematics II.

Statistics I.

Macroeconomics I.

Macroeconomics II.

## Objectives and Contextualisation

This course presents the standard models to study the economic growth of countries and the determination of their long-run income. It analyzes how fiscal and monetary policy affect the long-run economic variables and it presents a brief introduction to economic fluctuations.

## Competences

- Business Administration and Management
- Apply mathematical instruments to synthesise complex economic-business situations.
  - Capacity for adapting to changing environments.

- Capacity for independent learning in the future, gaining more profound knowledge of previous areas or learning new topics.
- Capacity for oral and written communication in Catalan, Spanish and English, which enables synthesis and oral and written presentation of the work carried out.
- Demonstrate an understanding of the basic and intermediate foundations of macroeconomics.
- Demonstrate initiative and work individually when the situation requires it.
- Demonstrate knowledge of the interrelationships between different economies, the role of national and international economies, their evolution and the consequences that may be produced for the company.
- Organise the work in terms of good time management, organisation and planning.
- Select and generate the information necessary for each problem, analyse it and take decisions based on that information.

#### Economics

- Apply mathematical instruments to synthesise complex economic-business situations.
- Capacity for adapting to changing environments.
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- Demonstrate an understanding of the basic and intermediate foundations of macroeconomics.
- Demonstrate initiative and work individually when the situation requires it.
- Demonstrate knowledge of the interrelationships between different economies, the role of national and international economies, their evolution and the consequences that may be produced for the company.
- Organise the work in terms of good time management, organisation and planning.
- Select and generate the information necessary for each problem, analyse it and take decisions based on that information.
- Show motivation for carrying out quality work and sensitivity to the consequences for the environment and society.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
- Work well in a team, being able to argue proposals and validate or reject the arguments of others in a reasoned manner.

### Learning Outcomes

1. A capacity of oral and written communication in Catalan, Spanish and English, which allows them to summarise and present the work conducted both orally and in writing.
2. Assess the impact of technological and demographic change and accumulation of capital on levels of wellbeing.
3. Capacity to adapt to changing environments.
4. Capacity to continue future learning independently, acquiring further knowledge and exploring new areas of knowledge.
5. Demonstrate initiative and work independently when required.
6. Demonstrate motivation regarding the quality of the work performed and sensitivity regarding the consequences on the environment and society.
7. Describe the determinants of economic growth and the international differences in income per capita.
8. Describe the determinants of economic growth and the international differences in income per capita.
9. Explain the effects of fiscal and monetary policies on the economy using dynamic general equilibrium models.
10. Formalise the intertemporal decisions of saving, consumption and investment.
11. Organise work, in terms of good time management and organisation and planning.

12. Select and generate the information needed for each problem, analyse it and make decisions based on this information.
13. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
14. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
15. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
16. Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
17. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
18. Understand the dynamic nature of economic decisions, and the microeconomic foundations of modern macroeconomics.
19. Work as part of a team and be able to argue own proposals and validate or refuse the arguments of others in a reasonable manner.

## **Content**

### **PART I: DYNAMIC MACROECONOMIC MODELS**

#### **1. Introduction to dynamic general equilibrium macroeconomics**

#### **2. Infinite horizon models**

- 2.1. The Solow growth model
- 2.2. The planner's problem
- 2.3. Efficiency of the competitive equilibrium
- 2.4. Exogenous technological progress
- 2.5. The leisure-labour decision

#### **3. Overlapping generations (OLG) models**

- 3.1. The planner's problem
- 3.2. Competitive equilibrium
- 3.3. Efficiency of the competitive equilibrium
- 3.4. The model with production

### **PART II: MACROECONOMIC POLICY**

#### **4. Fiscal policy**

- 4.1. The government's budget constraint
- 4.2. The Ricardian Equivalence Theorem
- 4.3. Proportional taxes
- 4.4. Financing pension systems

#### **5. Monetary policy**

- 5.1. The OLG model with money
- 5.2. Money in the utility function
- 5.3. Money with a cash-in-advance constraint

### **PART III: BUSINESS CYCLES**

#### **6. Economic fluctuations**

- 6.1. The real business cycle model without capital

- 6.2. The real business cycle model with capital
- 6.3. Extensions of the real business cycle model

## Methodology

Teaching will be offered on-campus.

In this subject we combine traditional lectures with ICT support with more applied sessions devoted to solving problem sets and exercises.

The proposed teaching 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.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Lectures Homework	17	0.68	2, 1, 7, 18, 9, 10, 12
Theory Lectures	32.5	1.3	2, 7, 18, 9, 10
Type: Supervised			
Office Hours	2	0.08	2, 1, 7, 18, 9, 10, 12
Type: Autonomous			
Studying, reading and homework	94.5	3.78	2, 3, 1, 4, 5, 7, 18, 9, 10, 11, 12

## Assessment

Evaluation criteria

### 1. Continuous Evaluation

The evaluation of the course will be carried out continuously and will include four evaluation activities of three different typologies, one of them will be a final exam with a weight of 50% in the final grade, one midterm exam with a weight of 35% in the final grade, a series of homeworks with a total weight of 10% in the final grade and class participation with a weight of 5%.

### Calendar of evaluation activities

The dates of the evaluation activities (midterm exams, exercises in the classroom, assignments, ...) will be announced well in advance during the semester.

The date of the midterm and final exam is scheduled in the evaluation calendar of the School.

"The dates of evaluation activities cannot be modified, unless there is an exceptional and duly justified reason why an evaluation activity cannot be carried out. In this case, the degree coordinator will contact both the teaching staff and the affected student, and a new date will be scheduled within the same academic period to make up for the missed evaluation activity." **Section 1 of Article 115. Calendar of evaluation activities (Academic Regulations UAB).** Students of the Faculty of Economics and Business, who in accordance with the previous paragraph need to change an evaluation activity date must process the request by filling out an **Application for exams' reschedule** [e-Form for exam rescheduling](#)

### Grade revision process

Students will be informed of the procedure, place, date and time of grade revision following University regulations.

### Retake Process

"To be eligible to participate in the retake process, it is required for students to have been previously been evaluated for at least two thirds of the total evaluation activities of the subject." Section 3 of Article 112 ter. The recovery (UAB Academic Regulations). Additionally, it is required that the student to have achieved an average grade of the subject between 3.5 and 4.9.

The date of the retake exam will be posted in the calendar of evaluation activities of the School. Students who take this exam and pass, will get a grade of 5 for the subject. If the student does not pass the retake, the grade will remain unchanged, and hence, student will fail the course.

### Irregularities in evaluation activities

In spite of other disciplinary measures deemed appropriate, and in accordance with current academic regulations, *"in the case that the student makes any irregularity that could lead to a significant variation in the grade of an evaluation activity, it will be graded with a 0, regardless of the disciplinary process that can be instructed. In case of various irregularities occur in the evaluation of the same subject, the final grade of this subject will be 0"*. **Section 10 of Article 116. Results of the evaluation. (UAB Academic Regulations).**

### 2. Comprehensive Evaluation (Art. 265 of the UAB Academic Regulations)

By requesting the comprehensive evaluation the student waives the option of continuous evaluation.

The comprehensive evaluation must be requested at the Academic Management (Gestió acadèmica) of the Campus where the degree/master's degree is taught. The request must be filed according to the procedure and the deadline established by the administrative calendar of the Faculty of Economics and Business.

Student attendance is mandatory on the day of the comprehensive assessment. The date will be the same as that of the final exam of the semester as per the evaluation calendar published by the Faculty of Economics and Business and approved by the Faculty's Teaching and Academic Affairs Committee.

Evidence type: Exam

Weight in the final assessment: 100%

Duration of the activity: maximum 150 min

For the retake procedure, no distinction is made between students who have followed the continuous evaluation and those who have opted for the comprehensive evaluation. All will be re-assessed using the same test or evaluation evidence.

The review of the final qualification will follow the same procedure as for the continuous evaluation

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Class Participation	5% of the final grade	0.5	0.02	17, 15, 13, 14

Final exam	50% of the final grade	2	0.08	2, 3, 1, 4, 7, 8, 18, 9, 10, 6, 11, 16, 12
Homework	10% of the final grade	0	0	2, 3, 1, 5, 7, 8, 18, 9, 10, 11, 17, 14, 12, 19
Midterm exam	35% of the final grade	1.5	0.06	2, 3, 1, 4, 5, 7, 18, 9, 10, 11, 12

## Bibliography

Acemoglu, D. (2009); "Introduction to Modern Economic Growth", Princeton University Press

Challe, E. (2019) "Macroeconomic Fluctuations and Policies", The MIT Press.

Krueger, D. (2012); "Macroeconomic Theory", unpublished manuscript,  
<http://www.ssc.wisc.edu/~aseshadr/econ714/MacroTheory.pdf>

Galí, J. (2016); "Real Business Cycle Models", class materials,  
[http://www.crei.cat/wp-content/uploads/2016/07/rbc\\_models\\_april2018.pdf](http://www.crei.cat/wp-content/uploads/2016/07/rbc_models_april2018.pdf)

Romer, D. (2002); "Advanced Macroeconomics. Second Edition", McGraw Hill.

## Software

Excel, Word