

**Advanced Macroeconomics and Finance**

Code: 40102  
ECTS Credits: 10

Degree	Type	Year	Semester
4313805 Economic Analysis	OT	2	2

**Contact**

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**Use of Languages**

Principal working language: english (eng)

**Teachers**

Jesús David Pérez Castrillo

Luca Gambetti

Nezih Guner

Raul Santaeulalia Llopis

**External teachers**

Hugo Rodríguez Mendizabal

**Prerequisites**

There are no specific prerequisites

**Objectives and Contextualisation**

This module presents some of the most widely used theoretical and empirical models in modern macroeconomics. By providing solid theoretical foundations, the goal of this module is to bring the student to frontier applications in macroeconomics and finance and open new lines of research. Students will also learn state of the art techniques for policy evaluation.

**Competences**

- Apply the methodology of research, techniques and specific advanced resources to research and produce innovative results in a specific area of specialisation
- Capacity to articulate basic economic theory, analytically deriving them from mathematical reasoning
- Conceptually analyse a specific economic problem using advanced analytical tools
- Demonstrate an open, innovative and analytical attitude towards research questions
- Design, plan and carry out economic research
- 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
- Search for information in the scientific literature using the appropriate channels and integrate the information to propose and contextualise a research topic
- Student should possess the learning skills that enable them to continue studying in a way that is largely student led or independent
- Students should be able to integrate knowledge and face the complexity of making judgements based on information that may be incomplete or limited and includes reflections on the social and ethical responsibilities associated with the application of their knowledge and judgements
- Students should know how to apply the knowledge they have acquired and their capacity for problem solving in new or little known fields within wider (or multidisciplinary) contexts related to the area of study
- 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

## Learning Outcomes

1. Apply the methodology of research, techniques and specific advanced resources to research and produce innovative results in a specific area of specialisation
2. Demonstrate an open , innovative and analytical attitude towards research questions
3. Draw up rigorous arguments to explain certain macroeconomic and financial phenomena
4. Frame an economic question in the field of macroeconomics and finance in a mathematical problem and derive the answer from mathematical logic
5. Identify the specific assumptions that allow the answer to be found for phenomena in the field of macroeconomics and finance
6. Interpret the modelling of a problem and the conclusion deriving from it
7. Make independent judgements and defend them dialectically
8. 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
9. Recognise the existing challenges in the field of macroeconomics and finance, propose a plan to describe the stages to follow and the methodologies to use to respond to those challenges
10. Search for information in the scientific literature using the appropriate channels and integrate the information to propose and contextualise a research topic
11. Student should possess the learning skills that enable them to continue studying in a way that is largely student led or independent
12. Students should be able to integrate knowledge and face the complexity of making judgements based on information that may be incomplete or limited and includes reflections on the social and ethical responsibilities associated with the application of their knowledge and judgements
13. Students should know how to apply the knowledge they have acquired and their capacity for problem solving in new or little known fields within wider (or multidisciplinary) contexts related to the area of study
14. 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

## Content

- Corporate Finance
- Social insurance in quantitative macroeconomic models
- Money and Banking
- Macroeconometrics
- Advanced topics in macroeconomics, inequality and growth

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

## Methodology

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 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			
Theory classes	75	3	1, 10, 2, 3, 7, 4, 5, 6, 12, 13, 14, 11, 9, 8
Type: Supervised			
Practical classes, problems sets, tutorials	25	1	1, 10, 2, 3, 7, 4, 5, 6, 12, 13, 14, 11, 9, 8
Type: Autonomous			
Personal study, study groups, textbook readings, article readings	150	6	1, 10, 2, 3, 7, 4, 5, 6, 12, 13, 14, 11, 9, 8

## Assessment

Final Exams

Class attendance and active participation

Problem sets and assignments

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

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Class Attendance and Problem sets and assignments	50%	0	0	1, 10, 2, 3, 7, 4, 5, 6, 12, 13, 14, 11, 9, 8
Final Exams	50%	0	0	1, 10, 2, 3, 7, 4, 5, 6, 12, 13, 14, 11, 9, 8

## Bibliography

Aghion, P. and Bolton, P. (1992), "An Incomplete Contracts Approach to Financial Contracting," *Review of Economic Studies* 59: 473-494.

Akerlof, G. (1970), "The Market for Lemmons, Quality Uncertainty and the Market Mechanism," *Quarterly Journal of Economics* 84: 488-500.

Allen, F. and Michaely, R. (1995), "Dividend Policy," in *Handbooks of Operation Research and Management Science: Finance* (ed. Jarrow, R., Maksimovic, V. and Ziemba, W.), Amsterdam: North-Holland.

Brealey, R.A. and Myers, S.C. (1997), "Principles of Corporate Finance," New York McGraw-Hill.

Brockwell, P. J. and R. A. Davis, (2009), *Time Series: Theory and Methods*, Springer-Verlag: Berlin

Camacho, M., G. Pérez Quirós and H. Rodríguez Mendizábal (2013): "Mixing the Ingredients: Business cycles, Technology Shocks, Productivity Slowdown and the Great Moderation", unpublished manuscript

Canova F. (2007), *Methods for Applied Macroeconomic Research*, Princeton University Press: Princeton

Christiano, L. J., M. Eichenbaum, and C. L. Evans (1999): "Monetary Policy Shocks: What Have We Learned and to What End?," in J. B. Taylor & M. Woodford (ed.), *Handbook of Macroeconomics*, edition 1, volume 1, chapter 2: 65-148, Elsevier.

Cooley, T. F. and G. D. Hansen (1995): "Money and the Business Cycle," in T. F. Cooley (ed.) *Frontiers of Business Cycle Research*, Princeton University Press.

Gali, J. (1999): "Technology, Employment, and the Business Cycle: Do Technology Shocks Explain Aggregate Fluctuations?" *American Economic Review*, 89(1): 249-271.

Hamilton J. D. (1994), *Time Series Analysis*, Princeton University Press: Princeton

Lutkepohl H. (2005), *New Introduction to Multiple Time Series*, Springer-Verlag: Berlin

Tirole, J. (2006), "The Theory of Corporate Finance," Princeton University Press.

*Additional references will be provided during the course.*

## Software

- Matlab
- R
- Python
- Stata