



PRESENTATION

Any Topics in Economics and Finance course is optional. Therefore, the information available on this webpage is valid for this academic year, though it may change in subsequent academic years.

Brief description of the course: The course offers an overview of major topics in modern macroeconomics and dynamic analysis. The objective of the course is twofold. On one side, it focuses on the main intuition behind each economic question and theoretical model. On the other side, students will get acquainted with the currently used methods of dynamic macroeconomics. Using these techniques, the course introduces students to the analysis of intertemporal consumption choices, economic growth and business cycle fluctuations, with various applications. This program is meant to improve students' understanding of economic phenomena and their preparation for the following course on Monetary and Open-Economy Macroeconomics.

- **Type of degree:** Master in Economics and Finance
- **Module/Subject Matter:** Module II/Matter 2.1 Topics in Economics and Finance
- **ECTS:** 3.5 (87.5 hours of work)
- **Year, semester:** 2025/2026, Fall
- **Professors:** Antonio Moreno Ibáñez and Tommaso Trani
- **Professors' emails, office and office hours:** See *Office Hours* in what follows
- **Language:** English
- **Time, venue:** See the timetable of the master ([link to the web](#))
- **Prerequisite knowledge and skills:** Please contact the instructor if you have not yet taken these or similar courses

*Special education needs: students with special needs should contact the professors of the course.

LEARNING OUTCOMES (Competencies)

Understanding of dynamic models dealing with cycles and growth

Macroeconomic modelling

Graphical representation of macroeconomic models

Mapping from modelling to reality

GENERAL COMPETENCIES

CG1) Train high-level specialists in both economic theory and finance

CG2) Provide students with the appropriate and necessary mathematical and econometric techniques for both theoretical and empirical work in the fields of economic theory and finance.



CG3) Familiarize students with research fields and the most relevant literature in economic theory and finance

CG4) Develop students' critical capacity towards economic or financial phenomena and enhance their communication skills.

CG5) Provide students with the basic theoretical foundations to start doctoral studies in economics or finance.

SPECIFIC COMPETENCIES

CE1) Study the main concepts and techniques of mathematical analysis, probability, and statistics required in the areas of economics and finance.

CE3) Appropriately use econometric techniques employed in the analysis of microeconomic data and in the analysis and modeling of financial time series.

CE4) Handle the main statistical and econometric programs used in the areas of economics and finance.

PROGRAM

The course is made of 6-7 broad subject areas. These will be taught by the two professors of the course as follows:

- Antonio Moreno Ibañez (10 hours): 3 & 4
- Tommaso Trani (20 hours): 1-2 & 5-6.

The references and the outline of the program are shown below. It is possible that we will need to make small changes to the program as we go through the material. Relevant changes and additions will be announced and/or indicated.

OUTLINE

1) Consumption and Saving

- Two-Period Economy
- Dynamic Optimization
- Intertemporal Consumption Choice
- Applications

2) Economic Growth

- Solow Model and Its Predictions
- An Intro to Endogenous Growth

3) Neoclassical Growth Model: Ramsey-Cass-Koopmans Model

- Preferences and Economic Growth
- Efficiency and Stability
- Government



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4) Real Business Cycle Modeling

- Stylized Facts
- Labor and Leisure
- Methodology and Refinements (on Labor and Capacity Utilization)
- Log-Linearization and Solution

5) Investment & Asset Pricing

- Capital Adjustment Costs and Tobin's Q
- Implications for Business Cycle Models
- Price Puzzles

6) OLGs

- Dynamics and Growth
- Welfare
- Government

7) Fiscal Policy / Financial Frictions (time permitting)

- Taxation
- Effect of Government Purchases
- Financial Constraints
- Financial Frictions and Business Cycle Fluctuations

Notes: Please consult the syllabus in the intranet for the list of the required/optional readings (book chapters and scientific papers) corresponding to each topic.

TEACHING METHODOLOGY

ORGANIZATION

The objective of the lectures will be to explain the various theories, the main economic issues addressed by each of them and the required analytical tools. The emphasis put on each of these three components will vary with the topic at hand. However, a good grasp of the methods currently used in macroeconomic analysis forms an essential part of the course.

We will distribute lecture notes for each of the subject areas in the outline. For the most technical material, students will receive some handouts as well.

Students will work on problem sets, which are an occasion for understanding and applying the techniques covered during the lectures. Group work and discussion of key topics are strongly encouraged. But each student should hand in his or her own individual solution to any problem sets. Personal reasoning and attempts are important ingredients not only for the homework and the final exam, but also for each student's future professional achievements.

Final exam: See the timetable of the master.

TIME DISTRIBUTION



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As for any course attributing 3.5 ECTS credits, students' workload is expected to be of about 87.5 hours. An indicative distribution of this preparation time is as follows:

- Lectures (20 hours): students will take notes and use material made available through ADI
- Review sessions (10 hours): students will learn the techniques and methods
- Personal and team work (54 hours): study of the theory, solution of problem sets, clarifications during the office hours
- Evaluation (3.5 hours).

EVALUATION AND GRADING

REGULAR EXAM

Grades will be based on:

- the final exam (70%)
- the problem sets (30%).

RESIT EXAM

The regular percentages will always apply. That is, in case a resit exam is needed, we will adopt the same weights as for the regular examination: 70% and 30%, respectively.

HONESTY IS THE BEST POLICY

(Ethics Committee Provisions Against Plagiarism and Copying)

We value honesty. Without it, there can be no trust or any meaningful social relations.

Therefore, the school expects honesty and fairness from all of its members: professors, non-academic staff, and students.

Dishonest behaviors will be sanctioned by the university regulations regarding academic discipline and include lying, cheating in exams, and plagiarism in written work. We take such violations seriously. Depending on their gravity, these offenses will be dealt with by the professor in charge of the subject, by the Dean of Students, and, in very severe cases, by the Vice President for Student Affairs.

Sanctions include:

- formal warnings
- prohibition from entering University premises for a given period
- loss of admission rights to exams
- loss of scholarships
- a failing grade for the piece of work or the whole course.



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OFFICE HOURS

Antonio Moreno (antmoreno@unav.es)

- Office 1050 (Dean's office). Edificio Amigos. Floor: ground.
- Office hours: by appointment.

Tommaso Trani (ttrani@unav.es)

- Office 2240. Edificio Amigos. Floor: 2, "hilera".
- Office hours: by appointment.

BIBLIOGRAPHY AND RESOURCES

There is no single reference for this course; we will use both books and journal articles. Whether required or optional, these readings will be complementary to the lecture notes distributed during the course for each topic.

TEXTBOOKS

Barro, R., and X. Sala-i-Martin (2004, 2nd ed.): *Economic Growth*, MIT Press [Find this book in the Library](#)

Blume, L. E., and K. P. Simon (1994): *Mathematics for Economists*, W.W. Norton & Company [Find this book in the Library](#)

Niepelt, D. (2019): *Macroeconomic Analysis*, MIT Press [Find this book in the Library](#)

Obstfeld, M., and K. S. Rogoff (1996): *Foundations of International Macroeconomics*, MIT Press [Find this book in the Library](#)

Romer, D. (2012, 4th edition): *Advanced Macroeconomics*, McGraw-Hill [Find this book in the Library](#)

Walsh, C. (2010, 3rd ed.): *Monetary Theory and Policy*, MIT Press [Find this book in the Library](#)

Notes: during the lectures we will use or cite various articles. For convenience, these are not listed here but in a portable syllabus, which is in the intranet. The syllabus indicates as well the specific sections of the books that are either required or suggested to complement the lecture notes. Moreover, in case you need to consult different editions and have doubts, please ask the professors for suggestions. Do so also in case you have doubts regarding other books or papers you wish to use.