# Dynamic Macroeconomics

**Academic Year: ( 2019 / 2020 )** **Review date: 07-05-2020**

**Department assigned to the subject: Economics Department**

**Coordinating teacher: FUSTER PEREZ, MARIA LUISA**

**Type: Compulsory ECTS Credits : 6.0**

**Year : 3 Semester : 2**

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Students are expected to have completed:

Microeconomics, Mathematics for Economics II, Microeconomic Theory
(Since all models studied in this course are "micro-founded",
i.e. based on agents solving explicit maximization problems, it is
essential that students are familiar with solving consumers'/firms'
problems and solving for general equilibrium.)

## OBJECTIVES

To acquire knowledge and comprehension for:

- the dynamic nature of economic decisions.
- Solving dynamic consumption-savings problems.
- Solving a general-equilibrium model and comparing it to the efficient allocation (planner's problem).
- Solving a model numerically on the computer.
- Solving an overlapping-generations model with a pay-as-you-go pension system.
- Solving a simple model of search and matching.

Transferable aims:

- To increase the capacity to deal with abstract concepts.
- To improve the ability to formalize theoretically an economic problem.
- To acquire agility in solving practical problems.
- To foster teamwork ability.
- To be able to perform critical analysis of arguments and theories.
- To improve oral and written communication.

## DESCRIPTION OF CONTENTS: PROGRAMME

1. Stylized facts on macroeconomic variables over the business cycle
2. Consumption-leisure decision
3. Credit markets: Inter-temporal consumption-savings decision
4. Real business cycles: Investment in overlapping-generations models
5. Government policy in the OLG model: Fiscal policy and pension systems
6. Unemployment: Search-and-matching model

## LEARNING ACTIVITIES AND METHODOLOGY

Theory classes:
In the theory classes (clases magistrales) students will be taught the theory and tools that are necessary to solve the problem sets.

Exercise classes:
In the exercise classes (clases reducidas) students will solve the problem sets that were assigned to you in the week previous to the exercise class. The problem sets have to be handed in to the professor of the exercise class. Students are expected to participate actively

en class, which will be reflected in the class-participation grade. There will be three quizzes during the semester with questions about the problems that have been solved in the previous exercise classes.

## ASSESSMENT SYSTEM

The final grade is obtained as follows:

40%: Continuous evaluation
30%: 3 quizzes
10%: Class participation and Problem sets

60%: Final exam (analytical exercices similar to those in the problem sets)

To pass the course it is necessary to obtain at least 3.5 out of 10 in the final exam.

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| **% end-of-term-examination:** | 60 |
| **% of continuous assessment (assigments, laboratory, practicals…):** | 40 |

## BASIC BIBLIOGRAPHY

- Matthias Doepke, Andreas Lehnert and Andrew Sellgren Macroeconomics, http://faculty.wcas.northwestern.edu/~mdo738/book.htm, 1999
- Robert J. Barro and Vittorio Grilli European Macroeconomics, MacMillan.