# uc3m Universidad Carlos III de Madrid

#### Macroeconomics

Academic Year: (2023 / 2024) Review date: 05-07-2023

Department assigned to the subject: Economics Department Coordinating teacher: EROSA ETCHEBEHERE, ANDRES

Type: Compulsory ECTS Credits: 6.0

Year: 2 Semester: 1

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

Principles of Economics

#### **OBJECTIVES**

The objective of this course is to give an introduction to macroeconomic theory at an intermediate level. To attain this objective the student must acquire knowledge, abilities and attitudes. By the end of this class, the student should be able to:

- To understand the importance of technological and demographic change as well as capital accumulation in explaining the observed differences in GDP per capita across countries, as well as their differences in growth rates.
- To understand the relationship between factor marginal productivity and prices.
- To understand the concept of money neutrality and its relationship with price flexibility.
- To analyze the long and short run effects of fiscal and monetary policies.
- To analyze the effects of supply and demand shocks in closed as well as open economies.

The abilities acquired by the students can be classified in two groups.

Specific abilities:

- Being able to find the relationship between private and public savings with investment and current account déficit.
- Being able to analyze the short and long run effects of fiscal and monetary policy.
- Finding the steady state of the Solow model.
- Finding the equilibrium of the IS-LM
- Analyze short-run dynamics of inflation and output (dynamic IS-LM Model).
- Understand monetary policy rules (Taylor rules)

## General skills:

- The student must be able to critically evaluate the power of the theories studied in class to understand the macroeconomic evidence.
- The student must be able to solve complex tasks working with other classmates.

## **DESCRIPTION OF CONTENTS: PROGRAMME**

The main objective is to present the basic foundations of macroeconomic theory, starting with the basic macroeconomic model in the long run where prices are flexible. Next, we will study the long run using the Solow model and we will study the effects of fiscal and monetary policies. Next, we turn to study the short run, when prices are rigid. We will analyze the evidence about fluctuations in GDP and its components and the effects of fiscal and monetary policies. We will study the dynamics of inflation and output in the short run and the effects of monetary policy rules.

### PART 1: Classical Theory

- National income, the relationship between factor marginal productivity and prices. Factorial 1. distribution of GDP, the relationship between public and private savings and investment in the long run.
- Money and inflation. The quantitative theory of money. The Fisher equation. 2.
- Open economies. Trade, capital flows, real and nominal exchange rates.

PART 2: Growth: Solow model. Population and technological growth.

## PART 3: Business cycles.

- The IS-LM model for the closed economy. 1.
- 2. The model AS-AD
- 3. Short-run aggregate supply, inflation/output tradeoffs Phillips curve.
- 4. Inflation and output dynamics in the short-run (dynamic IS-LM model)
- 5. Monetary policy rules (Taylor rule)

#### LEARNING ACTIVITIES AND METHODOLOGY

- A considerable amount of instruction will be in the form of lectures. The objective is to develop a conceptual framework for understanding macroeconomics.
- In-class discussion in order to apply the conceptual tools learned in class to case studies, current events, and recent policy debates.
- Problem sets. By solving the problem assignments, students are supposed to acquire the required capacities and self-evaluate their knowledge.
- (4) The solution of the problem set will be done in class together with the students in order for them to gain a better insight into the conceptual tools and knowledge related to each assigned problem. This should help students develop the ability to analyze and communicate relevant information for solving these problems.

#### ASSESSMENT SYSTEM

The final grade will be suspended if the grade obtained in the final exam is below 3.5. The final grade will be the average of a final exam (60%), one midterm (30%) and quizzes (10%).

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

#### **BASIC BIBLIOGRAPHY**

- Gregory N. Mankiw Macroeconomics 8th edition, Worth Publishers, 2012