



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Business Cycles in The Global Economy. Facts and Theory

2324-1-F5602M004-F5602M008M

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#### Learning objectives

The aim of this course is to introduce students to the main facts about business cycles and to the macroeconomic models that are useful in understanding economic fluctuations.

#### Contents

The course teaches you the main characteristics of business cycles and the macroeconomic models designed to explain economic fluctuations. These models highlight the role of forward looking expectations and uncertainty in macroeconomics. We will also consider extensions that incorporate frictions and heterogeneous agents.

The course addresses the question of how fiscal and monetary policy can alleviate the severity of business cycles with a special emphasis on policies pursued during the financial crisis and the pandemic.

#### Detailed program

1. Introduction: Basic facts about business cycles and economic fluctuations
2. The Real Business Cycle (RBC) model
3. Consumption under uncertainty and the consumption Capital Asset Pricing Model (CAPM)
4. Fiscal and monetary policy in the Real Business Cycle model: theory and evidence
5. The New-Keynesian (NK) model
6. Monetary policy in the New-Keynesian model
7. Rules versus discretion, liquidity traps and unconventional monetary policy
8. Topics: inequality and heterogeneity in macroeconomics; the financial crisis and the pandemic

## **Prerequisites**

Economics: Familiarity with an intermediate macroeconomics text such as Robert Barro, *Macroeconomics: A Modern Approach*, 2008, 1st edition, Thomson South-Western; or N. Gregory Mankiw, *Macroeconomics*, Worth Publishers or any other intermediate undergraduate macroeconomic textbook.

Mathematics: Familiarity with calculus at the level of Alpha C. Chiang, *Fundamental Methods of Mathematical Economics*, McGraw Hill and basic differential equations. Dynamic optimization will be introduced during the course. A useful reference for some mathematical concepts is the textbook: Simon, C. & Blume, L. *Mathematics for Economists*.

## **Teaching methods**

Lectures will be held in presence and according to the rules the University will set for the a.y. 2023-24. Lectures will be complemented by seminars during which the student will learn how to solve problem sets and simulate models with MATLAB.

## **Assessment methods**

Written exam and project work (optional).

## **Textbooks and Reading Materials**

Lecture notes will be made available. The main textbooks are:

Romer, D. *Advanced Macroeconomics*, 5th edition, McGraw-Hill, 2019

Galí, J., *Monetary Policy, Inflation and the Business Cycle: An Introduction to the New Keynesian Framework*, Princeton University Press, 2015

Niepelt, D. *Macroeconomic Analysis*, The MIT Press, 2019

For some topics, journal articles will be used.

## **Semester**

II semester

## **Teaching language**

English

# Sustainable Development Goals

REDUCED INEQUALITIES

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