UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Growth Theory and Empirics: An International Perspective

2223-1-F5602M004-F5602M007M

Learning objectives

The aim of this course is to introduce students to the workhorse models of modern dynamic macroeconomics. It aims at providing you with the mathematical and analytical foundations needed to solve intertemporal dynamic optimization problems in general equilibrium. Lectures will be complemented by seminars during which you will learn how to solve problem sets.

Contents

The course teaches you macroeconomic models that help understand the causes of long-run economic growth and cross-country income differences. These include the Solow growth model, the Neoclassical growth model, the overlapping generations model and theories of endogenous growth.

Detailed program

1. Introduction: Basic facts about economic growth and cross-country income differences
2. The Solow growth model
3. Micro-foundations of macro-models and dynamic optimization
4. The Neoclassical growth model and applications
5. Growth with overlapping generations
6. Endogenous technological change
7. Economic growth in the global economy
8. Explaining cross-country income differences: from proximate to fundamental causes

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. 2022-23. Lectures will be complemented by seminars during which the student will learn how to solve problem sets.

Assessment methods

The exam is a written test.

Textbooks and Reading Materials

Lecture notes will be made available. The main textbooks are:
Acemoglu, D. Introduction to Modern Growth, Princeton University Press, 2009
Romer, D. Advanced Macroeconomics, 5th edition, McGraw-Hill, 2012
For some topics, journal articles will be used.

Semester

II semester

Teaching language

English

Sustainable Development Goals

DECENT WORK AND ECONOMIC GROWTH