# Economics II

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***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to provide an introduction to the main stylised facts of macroeconomics and to the techniques needed for analysing basic macroeconomic models. A special emphasis will go to analysing growth and fluctuations, with an accent on the role of both market imperfections in the short, medium and long term, and expectations. The course also tackles the main themes of the macroeconomic-policy debate: unemployment, inflation, public debt, international competitiveness, technological innovation, the growth of human capital. A tentative analysis of the recent financial and economic crisis will also be presented.

The course will include both lectures and classes. The latter are aimed at having the students acquire the capacity to work with the models discussed during lectures, through the guided execution of exercises.

Upon completion of the course, the student should be familiar with basic macroeconomic models and their use for the purposes of economic policy and interpretation of recent economic events. The student should be able to evaluate the effects of macroeconomic results and of policies on the choices of economic agents, and financial intermediaries in particular. The student will also acquire the capacity to identify the sources of the main macroeconomic facts, and to select the essential data for interpreting those facts.

***COURSE CONTENT***

Instructional objectives that the student should have achieved before taking the course

Before enrolling in the course, the student should

– have a good understanding of basic microeconomics; in particular, the theory of choice, the production theory, cost and profit functions, equilibrium under perfect competition, under monopoly and Cournot oligopoly;

– know and know how to use the main concepts of descriptive statistics (mean values, variance and covariance, time series, correlation coefficient, R2);

– know how to solve systems of two linear equations with two unknown variables; know elementary series and successions; know how to calculate the derivative of functions with two or more variables and of compound functions; know how to calculate the total differential; know how to identify the unrestricted and restricted maximum and minimum of a function with two or more variables; know how to execute the logarithmic transformation of elementary functions and know how to apply the fundamental properties of logarithms.

Whoever has not met the aforementioned instructional objectives in prior years will need to do so before taking the course.

Instructional objectives of the course

*1. Macroeconomic aggregates*

In completing this part of the course, the student is expected to be able:

– to know the fundamental elements of national accounting;

– to calculate GDP for a simplified economy starting from elementary data, with the income, expenditure and value-added methods;

– build a country's balance of payments from its components;

– calculate the “degree of openness of an economy”;

– to construct the statement of sources and uses;

– to calculate the index numbers for prices and the implicit GDP deflator;

– to know the "five fundamental rates" for economy (rate of unemployment, rate of inflation, rate of GDP growth, interest rate and nominal and real exchange rates);

– to calculate each of the aforementioned rates starting from elementary data;

– to understand the significance of the trend of such rates over time, from the standpoint of international comparison;

– to know the monetary aggregates and the significance of the monetary base;

– to know the relationship between quantity of money in circulation and bank transactions;

– to calculate the multiplier of bank deposits and the credit multiplier;

– to use the quantitative equation for money;

– to know the fundamental components of the public budget;

– to calculate the trend of the public debt and the relationships existing between debt, primary surplus, the rate of interest and the rate of growth;

– to proceed with eliminating trends from a variable with the use of elementary methods;

– to understand the elementary methodology for analysing growth and the economic cycle and the distinction between analyses with fixed, flexible, or sticky prices.

*2. The long term*

In completing this part of the course, the student is expected to be able:

– to use the quantitative equation to construct the aggregate demand (AD) curve;

– to know the relationships existing between market structure and macroeconomic equilibrium in the long term, using the distributive equilibrium format;

– to solve a simple long-term macroeconomic model for a closed economy;

– to understand the interactions existing between different "imperfections" of the markets for goods and labour;

– to understand the role of institutions (from the power of the antitrust authorities, to costs for market entry to the tax wedge) in influencing macroeconomic equilibrium in the long term;

– to construct the graph of the function of aggregate supply (AS) over the long term starting from distributive equilibrium and to know how to do elementary comparative static exercises;

– to know the macroeconomic functions of savings, investment and net exports and to know how to solve a simple model for the funds market over the long term;

– to use the quantitative theory of money to calculate the rate of inflation; to understand the demand and supply determinants of inflation, starting from distributive conflict and the public finance situation;

– to calculate seigniorage, the inflation tax and the fiscal drag; to determine the average inflation rate starting from the productivity dynamics differentiated from sector to sector.

*3. The short term*

In completing this part of the course, the student is expected to be able:

– to interpret the short term starting from an AD-AS model with fixed prices;

– to know the Keynesian consumption function in the short term;

– to solve an income-expenditure model in presence of the public sector and to calculate the multipliers of expenditure and taxes;

– to understand the parsimony paradox;

– to understand the significance of and to know how to calculate the effects of "automatic stabilisers" of GDP with fixed prices;

– to know the function of investments and of the preference for liquidity and to understand their role in short-term equilibrium;

– to construct and solve an IS-MP model under interest rate targeting;

– to analyse the short-term balance of an open economy with perfect capital mobility;

– to solve open economy models when the exchange rate is fixed and when it is flexible;

– to understand the different effects of budgetary policy and monetary policy in different exchange rate regimes;

– to understand the mechanisms underlying the ignition and propagation of financial crises.

*4. The medium term*

In completing this part of the course, the student is expected to be able:

– to know what the Phillips curve is and how it is derived starting from a simple law of adjustment of money wages;

– to know the effects of productivity changes, the market power of firms and of workers on the Phillips curve;

– to know how to construct the Phillips curve starting from available data on inflation and unemployment;

– to understand the role of inflationary expectations in the shifting of the Phillips curve;

– to construct the graph of the trend of the aggregate supply (AS) curve in the medium term;

– to know the Nairu concept and the steady state concept;

– to solve a dynamic IS-AS-MP model under both simple and Taylor monetary policy rules and extrapolative expectations and to calculate the convergence toward the steady state following temporary and permanent shocks.

***READING LIST***

A. Boitani, *Macroeconomia,* Il Mulino, Bologna, 2019 (ch. 1-8, 10-11, 13-14).

A. Boitani-C. Punzo, *Esercizi di Macroeconomia,* available online through the dedicated site, Il Mulino.

A. Boitani, *Sette luoghi comuni sull’economia*, Laterza, Roma-Bari, 2017, 2019.

Supplemental material will be made available on the Blackboard site.

***TEACHING METHOD***

Lectures and classes (20 hours).

***ASSESSMENT METHOD AND CRITERIA***

Student's learning is assessed with two different methods, although equivalent, depending on whether they decide to take interim exams, or in a regular exam session.

The interim exams primarily consist of two tests that correspond to the parts in which the program is structured. Each *test* includes *true/false* questions, calculus exercises and open questions. The total score that can be reached with each *test* is 30 points. The final mark is therefore a weighted average of the scores achieved in each *test*, in which the lowest score weighs 45%, and the other 55% for a total of 100%, or 30 points.

The ordinary exam session is instead a fully written test divided into three parts, adding to a total of 30 points. Part A is composed of *true/false* questions, which in total are worth 10 points. Part B consists of exercises, which in total are worth 14 points. Part C consists of open questions, for a total of 6 points.

 **Both the interim tests and the official exam session may undergo significant and currently unforeseeable changes if the health situation relating to the Covid-19 pandemic does not allow the regular face-to-face conduction of the exam.**

***NOTES AND PREREQUISITES***

This syllabus is also valid for students who graduated with the old system, who are however invited to contact the lecturer before starting the exam preparation.

According to what the Faculty has established, the preliminary exams are: General Mathematics, Statistics I and Political Economy I.

Further information can be found on the lecturer's webpage or on the Faculty notice board.