



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Public Finance - A-L

1920-1-A5810003-AL

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#### Learning objectives

- 1) Provide the students with the basic notions which are required to understand main economic phenomena.
- 2) Allow the students to understand the reasons and the implications of the State intervention in decentralised market-based economies.

#### Contents

Scienza delle finanze is the only mandatory course with economic contents taught during the 5-years programme. On the one hand, the new syllabus is aimed at providing students with an historical perspective on the reasons of prevalence and on the fundamental features of the capitalistic economic system and, on the other hand, it is aimed at analyzing the main economic concepts in the context of contemporary economies. The course can be divided into two parts, the first devoted to the historical perspective and to provide some basic economic notions and the second which focuses on the study of social interactions as well as on the reasons and tools used by the government to intervene in the economy. In turn, each part is divided into 3 units. Basic knowledge of algebra and geometry is required.

#### Detailed program

*For units 1-5, references are to the sections of ["The Economy"](#) are indicated below.*

#### **FIRST PART: HISTORICAL PERSPECTIVE AND SOME BASIC ECONOMIC NOTIONS**

#### **UNIT 1: THE CAPITALIST ECONOMIC SYSTEM AND THE ROLE OF INNOVATION**

1.1 Income inequality 1.2 Measuring income and living standards. 1.3 History's hockey stick: Growth in income. 1.4 The permanent technological revolution. 1.5 The economy and the environment. 1.6 Capitalism defined: Private property, markets, and firms 1.7 Capitalism as an economic system. 1.8 The gains from specialization. 1.9 Capitalism, causation and history's hockey stick 1.10 Varieties of capitalism: Institutions, government, and the economy. 1.11 Economics and the economy 2.2 Economic models: How to see more by looking at less. 2.3 Basic concepts: Prices, costs, and innovation rents 2.4 Modelling a dynamic economy: Technology and costs 2.5 Modelling a dynamic economy: Innovation and profit

## **UNIT 2: SCARCITY, WORK AND CHOICE**

3.1 Labour and production 3.2 Preferences 3.3 Opportunity costs 3.4 The feasible set 3.5 Decision making and scarcity 3.6 Hours of work and economic growth 3.7 Income and substitution effects on hours of work and free time 3.8 Is this a good model? 3.9 Explaining our working hours: Changes over time 3.10 Explaining our working hours: Differences between countries

## **UNIT 3: THE FIRM AND ITS CUSTOMERS. DEMAND AND SUPPLY OF GOODS.**

7.1 Breakfast cereal: Choosing a price 7.2 Economies of scale and the cost advantages of large-scale production 7.3 Production: The cost function for Beautiful Cars 7.4 Demand and isoprofit curves: Beautiful Cars 7.5 Setting price and quantity to maximize profit 7.7 Gains from trade 7.8 Elasticity of demand 7.11 Product selection, innovation and advertising 8.1 Buying and selling: Demand and supply 8.2 The market and the equilibrium price 8.3 Price-taking firms 8.4 Market supply and equilibrium 8.5 Competitive equilibrium: Gains from trade, allocation, and distribution.

## **SECOND PART: SOCIAL INTERACTIONS. REASONS AND TOOLS OF GOVERNMENT INTERVENTION IN THE ECONOMY.**

### **UNIT 4: SOCIAL INTERACTIONS AND INEQUALITY**

4.1 Social interactions: Game theory 4.2 Equilibrium in the invisible hand game 4.3 The prisoners' dilemma 4.4 Social preferences: Altruism 4.5 Altruistic preferences in the prisoners' dilemma 4.6 Public goods, free riding, and repeated interaction 4.7 Public good contributions and peer punishment 4.8 Behavioural experiments in the lab and in the field 4.9 Cooperation, negotiation, conflicts of interest, and social norms 4.10 Dividing a pie (or leaving it on the table) 4.11 Fair farmers, self-interested students? 4.12 Competition in the ultimatum game 5.12 Measuring economic inequality 5.13 A policy to redistribute the surplus and raise efficiency

### **UNIT 5: MORE ON MARKET FAILURES**

12.1 Market failure: External effects of pollution 12.2 External effects and bargaining 12.3 External effects: Policies and income distribution 12.4 Property rights, contracts, and market failures 12.5 Public goods 12.6 Missing markets: Insurance and lemons

### **UNIT 6: ELEMENTS OF ECONOMIC ANALYSIS OF TAXATION**

A taxonomy of taxes. Taxes on personal income. Equity and efficiency of Irpef. Taxes on consumption (VAT). Incidence of consumption taxes.

## **Prerequisites**

Basic notions of algebra

## Teaching methods

Front-end lectures with examples and exercises.

## Assessment methods

Written test. Possible oral integration.

### EXAMS FROM MAY 2020 ONWARDS

The University is elaborating some guidelines for written exams during the CoVid19 emergency. The course instructor will follow these guidelines adapting them to this course. It is very likely that the exam will be based on some applications that are available exclusively on the e-learning platform.

**CONSEQUENTLY, STUDENTS WHO WANT TO GIVE THEIR EXAM FROM MAY 2020 ONWARDS MUST SUBSCRIBE TO THE ELEARNING PLATFORM OF THE COURSE AS SOON AS POSSIBLE IF THEY DID NOT ALREADY DO IT.**

## Textbooks and Reading Materials

Course material, including slides, examples and exercises, will be made available through the elearning platform by the end of the week of their use in class.

For units 1-5 the reference book is ["The Economy"](#). For unit 6 please contact the course instructor.

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