



UNIVERSITÀ DI PISA

PRINCIPLES OF ECONOMICS

SIMONE D'ALESSANDRO

Anno accademico

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CdS

MANAGEMENT FOR BUSINESS AND
ECONOMICS

Codice

545PP

CFU

12

Moduli	Settore/i	Tipo	Ore	Docente/i
PRINCIPLES OF ECONOMICS I	SECS-P/01	LEZIONI	42	SIMONE D'ALESSANDRO PIETRO GUARNIERI
PRINCIPLES OF ECONOMICS II	SECS-P/01	LEZIONI	42	SIMONE D'ALESSANDRO

Learning outcomes

Knowledge

This course provides the introduction to economics for undergraduates in the Department of Economics. It introduces the characteristics of economies using historical and crosscountry comparisons across the major dimensions of economic performance (growth, inequality, stability). The aim of the course is to provide an analytical introduction to the core concepts of modern microeconomics.

By taking the main economic actors and showing how they make decisions, the course covers behaviour in goods, labour and credit markets, highlighting the role of the rules of the game (institutions), and showing the sources of market successes and market failures.

The course will also investigate two contemporary issues: inequality and the environment.

Assessment criteria of knowledge

Ongoing assessment to monitor academic progress will be carried out in the form of tests (multiple choice questions) and open question in the midterm exam

Skills

Students learn how to analyse a wide variety of economic situations by identifying the decision maker(s) (including individuals, households, firms, communities, and unions), their objectives, the action(s) they have to decide, the constraints they face (the feasible set) and the decision rule. This provides a broadly applicable method for identifying the possibilities for mutual gains from an economic interaction and the presence of conflicts of interest. The concepts of trade-offs and opportunity cost, and the evaluation of economic outcomes according to the criteria of efficiency and fairness are used repeatedly. Students will use (a) historically and methodologically informed narrative, (b) graphical economic models and (c) mathematical models to analyse these issues.

At the end of the course, students should:

- Be familiar with many of the core concepts in modern economics and be able to relate these to a range of applications in the real economy.
- Be able to apply these concepts, along with some elementary mathematical techniques acquired on this and other courses, to solve numerical or algebraic economic problems.
- Be able to move without undue difficulty to the more advanced analysis of the core concepts and methods they will encounter on the second year of the degree course

Assessment criteria of skills

Students will have to prepare a written assignment using data and creating graph to discuss an actual problem of real economies

Behaviors

The module enables the student to be able to work individually and sometimes in groups, to acquire flexibility and willingness to discuss.

Assessment criteria of behaviors

During the oral exam, the teachers will assess the behaviour acquired, verifying the way in which the work is managed and organised.



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Prerequisites

No prerequisite is required, mathematical tools will be used at a basic level.

Teaching methods

There will be 32 2-hour lectures in all (16 in each module). Other teaching (10 lectures) will be a mix of in-depth studies on some transversal topics and exercises.

Syllabus

Preliminary programme (please check the elearning platform for update)

Studying Material:

Slides, Lecture Notes and, from the books available on core-econ.org: The Economy, units 1-8, 11, 12, Leibnizes (appendixes of analytical models) and Doing Economics (for the assignment). If we have time, we will focus also on inequality and climate change issues (Units 19 and 20)

List of topics we will deal with:

Unit 1 - The capitalist revolution

Empirical data on common economic indicators and the importance of this approach in the economic analysis. Take a glimpse at absolute and comparative advantages and some topics of interest today such as causality, inequality, long run growth and its environmental impact.

Unit 2 - Technology, population, and growth

What an economic model is by looking at the Classical economics and at Schumpeter's idea of creative destruction. We introduce the concepts of costs and profits, innovation and the diminishing average product of labour.

Unit 3 - Incentives and the Moral Economy

Analysis of individual choices, budget constraints, the feasible frontier and the solution of constrained maximisation in individual behaviour. Marginal rate of substitution and marginal rate of transformation.

Unit 4 - Social interactions

Game theory is the starting point for behavioral economics, which is slightly introduced in this unit. Dominant strategy, the prisoner's dilemma, the resulting Nash equilibria and the problem of free riding. Focus on altruistic preferences and the concept of fairness.

Unit 5 - Property and power: Mutual gains and conflict

What happens when there is more than one actor in the economy and how they trade, depending on their initial endowments. Definition of economic surplus, inequality and analysis of public policies to contrast it.

Unit 6 - The firm: Owners, managers, and employees

Investigation of the labour market and the basic microeconomic model used for the determination of wage.

Unit 7 - The firm and its customers

How a firm decides the quantity to produce (and to sell) and which price it chooses for its good. Demand elasticity, firms' market power and the reasons behind innovation, diversification and advertisement.

Unit 8 - Supply and demand: Price-taking and competitive markets

Price-taker firms, competitive equilibrium and what impacts trade, reallocation, supply/demand shocks and taxes have on the equilibrium. Distinction between price-taking and price-setting firms.

Unit 11 - Rent-seeking, price-setting, and market dynamics

Definition of exogenous and endogenous shock, how and when a market is not in equilibrium. Price makers behaviour and rent extraction may bring to a new, competitive, equilibrium. Innovation, differences between short- and long-run equilibria and elasticities.

Unit 12 - Markets, efficiency, and public policy

Market failures and missing market. Externalities and public good. Bargaining, policies and income distribution.

Mathematical Appendix - LEIBNIZES

These appendixes give a mathematical formulation and/or derivation of fundamental microeconomic results that encompass topics of all the course, and which are a characterizing competence of any microeconomics course in economics department.

Doing Economics

This section introduces a more modern way of approaching economic problems. Using the software R, it is possible to obtain statistically strong results in a fairly simple way, while also introducing one of the more used, open-source, software used in economic research.

Bibliography

The reference manual is "The Economy" by The Core Project. There is a physical book published by Oxford University Press and a free e-book available at:

<https://www.core-econ.org/project/core-the-economy/>

Moreover, few lectures will use the "Doing Economics: Empirical Projects" available at:

<https://www.core-econ.org/doing-economics/>



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Further readings would be suggested in class.

Non-attending students info

The program is exactly the same for attending and non-attending students. Attendance is useful but not compulsory.

Assessment methods

The exam will be written and oral. Students must obtain 18/30 to be admitted to the oral exam.

At the end of the first module there will be the possibility to take an intermediate exam. Student who get more than 18/30 can take only the second module exam at the first prove of the summer exams (end of May or beginning of June). The total mark will be an average of the two intermediate exams.

Info about assessment methods are available on [the course webpage](#)

The virtual room will be available few days before the exam

Class web page

<https://elearning.ec.unipi.it/course/view.php?id=1503>

Additional web pages

At the web site of The Core Project there is all the material needed and other interesting readings:

<https://www.core-econ.org/>

All the slides of the course will be available at the elearning platform:

<https://elearning.ec.unipi.it/course/view.php?id=1307>

The web page of the teachers:

https://people.unipi.it/simone_dalessandro/

<https://sites.google.com/ec.unipi.it/pietroguarnieri/>

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