



UNIVERSITY OF PIRAEUS

1) GENERAL

SCHOOL	ECONOMICS, BUSINESS AND INTERNATIONAL STUDIES		
ACADEMIC UNIT	ECONOMICS		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	OKEΘY08	SEMESTER	8
COURSE TITLE	DATA ANALYSIS FOR DECISION MAKING		
INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS	CREDITS	
Lectures	4	5	
COURSE TYPE	Scientific Expertise, Workshops using Statistical Software (Stata)		
PREREQUISITE COURSES	-		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.unipi.gr/courses/OEP237/		

2) LEARNING OUTCOMES

Learning Outcomes

The aim of this course is to introduce students to the tools of statistics and econometrics as applied to the analysis of longitudinal data using the statistical software Stata. The course covers the principles of random variables and probability, hypothesis testing, linear regression, logistic (logit) regression, relative risk, survival analysis, and analysis of uncertainty. These methods have general application to the analysis of microeconomic variables within a wide range of economic problems. The course focuses on the practical application of the methods and the lectures are followed by workshops during which longitudinal datasets are analysed using the statistical software Stata.

Upon successful completion of the course, students will have acquired:

- (i) very good understanding of standard statistical techniques through their application to the analysis of empirical data
- (ii) basic knowledge of the use of Stata
- (iii) very good understanding of the issues involved in choosing the appropriate statistical method and in interpreting the findings of the analysis given the research question and the type of the variables of interest.

General Competences

- Applying theory to practice
- Analysis of longitudinal data
- Use of the statistical software Stata
- Interpreting empirical findings
- Critical appraisal of the various statistical approaches
- Analytical way of thinking
- Decision making
- Teamwork

3) SYLLABUS

- Introduction to random variables and probability distributions
- Descriptive statistics, confidence intervals
- Hypothesis testing
- Linear regression
- Logistic (logit) regression and relative risk
- Survival analysis
- Application of the above statistical methods to the analysis of longitudinal data using Stata and interpretation of the findings.

4) TEACHING and LEARNING METHODS

DELIVERY	In class lectures	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Use of ICT in lectures	
TEACHING METHODS	Activity	Semester workload
	Lectures	20
	Workshops	32
	Individual Study	71
	Final Exam	2
	Course Total	125
STUDENT PERFORMANCE EVALUATION	The assessment is based on a written assignment which is supplemented by an oral presentation and it is worth 100% of the final mark. The assignment requires specific statistical analyses of empirical data using Stata, a thorough interpretation of the findings and an extensive discussion of the statistical methods that have been employed.	
ATTACHED BIBLIOGRAPHY	<ul style="list-style-type: none">• Wooldridge J. Introductory Econometrics: A Modern Approach. Papazisis Publisher, 2013. (This has been originally published in English as: Wooldridge J. Introductory Econometrics: A Modern Approach. Fourth Edition. South-Western, a part of Cengage Learning, 2009).• Lecture notes on the use of Stata.	