UNIVERSITY OF PIRAEUS

FACULTY/SCHOOL	**School of Economics, Business and International Studies**		
DEPARTMENT	**Department of Economics**		
LEVEL OF STUDY	**Undergraduate**		
COURSE UNIT CODE	**OKAHE06**	**SEMESTER**	**8th**
COURSE TITLE	**ADVANCED HEALTH ECONOMICS**		
WEEKLY TEACHNG HOURS	**4**	**CREDITS (ECTS)**	**5**
COURSE TYPE	Scientific expertise and Skills Development		
PREREQUISITE COURSES	None		
INSTRUCTION LANGUAGE	Greek	**ASSESSMENT LANGUAGE**	Greek
OPEN TO ERASMUS	No		

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 specialised statistical software Stata. The course covers the principles of random variables and probability, descriptive statistics and confidence intervals, hypothesis testing, linear regression, logistic (logit) regression, relative risk, survival analysis, and analysis of uncertainty. These methods are applied to the analysis of microeconomic problems in general and health economic problems in particular. The course focuses on the practical application of the methods and the lectures are followed by seminar discussions during which longitudinal datasets are analysed using Stata.

Upon successful completion of the course, students will have acquired (i) very good understanding of basic statistical techniques through their application to the analysis of real data, (ii) basic knowledge of the use of Stata, (iii) 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 data.

GENERAL COMPETENCES

- Applying theory into practice
- Analysis of longitudinal data
- Using Stata
- Interpreting empirical findings
- Critical evaluation/appraisal of analytical methods and their findings
- Analytical way of thinking
- Decision making
- Teamwork

COURSE CONTENT

- 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 interepretation of the findings.

USE OF ICT IN TEACHING

Use of ICT during in-class lecturing

COURSE DESIGN

Activity/Method	Semester workload
Lectures	52
Individual Study	71
Exam	2
Total	125

COURSE ASSESSMENT

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 to be undertaken using Stata, a thorough interpretation of the findings and an extensive discussion of the statistical methods that have been employed.

SUGGESTED BIBLIOGRAPHY

- 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).
- Drummond M, O'Brien B, Stoddart G, Torrance G. Methods for the Economic Evaluation of Health Care programmes. Athens: Kritiki Publishers, 2002. (This has been originally published in English as: Drummond M, O'Brien B, Stoddart G, Torrance G. Methods for the Economic Evaluation of Health Care programmes. Oxford Medical Publications, 1997).
- Lecture notes on the use of Stata.