COURSE LAYOUT

1. GENERAL

SCHOOL	APPLIED ECONOMICS AND SOCIAL SCIENCES
DEPARTMENT	AGRICULTURAL ECONOMICS & RURAL DEVELOPMENT
STUDY LEVEL	*Undergraduate*

COURSE CODE	3160	**SEMESTER**	8th

COURSE TITLE	APPLIED MICROECONOMETRICS

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**ECTS**
Lectures	5	5

COURSE TYPE	Scientific area, Skill development
PREREQUISITES	
LANGUAGE	Greek
IS THE COURSE OFFERED for ERASMUS STUDENTS?	No
COURSE WEB PAGE	https://oeclass.aua.gr/eclass/courses/AOA141/

2. LEARNING OUTCOMES

Learning Outcomes

This course extends on knowledge gained in the course of Econometrics. In addition, theory is extended to non-linear models while at the same time these models are applied in real world practical problems. The aim of the course is to apply microeconometric methods of analyzing data with econometric software.

More specifically, the course aims in understanding linear and non-linear econometric models as well as apply all relevant hypotheses tests with respect to these models. In addition, students will acquire skills of applied econometric analysis in order to be able to answer interesting questions from microeconomic. The purpose of the course will be fulfilled by applying microeconometric analysis methods to real world data.

By successfully completing this course the student will:
- be able to understand how the nature of the dependent variable dictates which microeconometric model needs to be applied and when it is appropriate to use each model and hypothesis testing
- know all core methods of doing econometric analysis with microeconomic data
- conduct autonomous data analysis, interpret results and answer microeconomic related problems
- have developed necessary skills for continuing his/her studies at graduate level
- have the ability to analyze and interpret data by using microeconometric tools that can be used in making judgements about related socio-economic problems.

General competences

- Search, analyze and synthesize data and information by using appropriate software
- Autonomous work
- Decision making
- Critique and self-critique
- Advance of free thinking and reasoning

3. COURSE CONTENT

i. Introduction in econometric software
    a. New user and basic commands
    b. Reading data and data management
    c. Manipulating data and graphical depiction
ii. OLS regression
    a. Data description
    b. Regression analysis
    c. Model specification
    d. Marginal changes and elasticities
iii. Models for binary dependent variables
    a. The maximum likelihood method
    b. The linear probability model
    c. Non-linear probability models
    d. The latent variable model
    e. Estimating probit and logit models
    f. Hypothesis testing
    g. Model specification
    h. Model fit
    i. Predicted values and odds ratio
iv. Models for ordered dependent variables
    a. The latent variable model
    b. Estimating ordered probit and ordered logit models
    c. Hypothesis testing
    d. Model specification
    e. Model fit
    f. Predicted values and odds ratio
v. Models for nominal dependent variables
    a. The multinomial logit model
    b. Hypothesis testing
    c. Predicted values and odds ratio

4. TEACHING and LEARNING METHODS - Evaluation

TEACHING METHOD	In class	
USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES	• e-class platform • Power-Point slides • Econometric software	
TEACHING ORGANISATION	*Activity*	*Work Load*
	Lectures	65
	Study at home	40
	Homework	20
	Course total (25 hours of student work load per ECTS)	*125*
STUDENTS EVALUATION		
	Written final exams including:	

	▪ Solving microeconometric analysis problems using econometric software Homework including: ▪ Data analysis and written assignments

5. BILBIOGRAPHY

Suggested:
- Wooldridge J. (2011) Introduction to econometrics. 2nd edition. Publisher: Papazisi.
- Stock, H. James and Watson, W. Mark (2017). Introduction to econometrics. 1st edition. Publisher: Dardanos.

Scientific journals:
- Journal of Applied Econometrics
- Journal of Econometrics
- Econometric Reviews
- Econometrics Journal