COURSE OUTLINE

(1) GENERAL

SCHOLL	Economics and Public Administration
ACADEMIC UNIT	Economic and Regional Development
LEVEL OF STUDIES	Postgraduate
COURSE CODE	80123 **SEMESTER** H'
COURSE TITLE	ECONOMETRICS II

INDEPENDENT TEACHING ACTIVITIES *If credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole course, give the weekly teaching hours and the total credits.*	**WEEKLY TEACHING HOURS**	**CREDITS**
	4	6
Add rows if necessary. The teaching organisation and methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	General backround, general knowledge, skills development
PREREQUISITE COURSES:	Econometrics I, Quantitative methods
LANGUAGE OF INSTRUCTION and EXAMINATIONS :	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://openeclass.panteion.gr/courses/TMI256/

(2) LEARNING OUTCOMES

Econometrics II analyzes how modern basic tools and techniques of Econometrics can be used in various fields of Economics and related social sciences.Upon successful completion of the course, the student will be able:

• To understand the connection process between the theoretical Economic models with their empirical applications.

• To utilize modern statistical-econometric programs for the processing, analysis and presentation of data.

• To identify economic data from social and economic data bases, analyze and categorize them and apply them to econometric models

• To interpret the empirical results of the models and analyze them based on economic theory.

•To apply selection criteria for the most appropriate forecasting model and conduct short- and long-term forecasts.

•To recognize the structure of an economic problem, identify the ways to solve it and examine it through the applied knowledge tools

•To understand the statistical and econometric analyzes in scientific articles and papers presented in scientific conferences

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information with the use of the necessary technology.	*Project planning and management*
	Respect for difference and multiculturalism
Adapting to new situations	*Respect for the natural environment*
Decision-making	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Working independently	
Teamwork	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*Others*
Production of new research ideas	*…….*

• Promotion of free, creative and inductive thinking
• Search, analysis and synthesis of data and information, using the necessary technologies
• Adaptation to new situations
• Autonomous work
• Generation of new research ideas

(3) SYLLABUS

The main modules that make up the course are:

• Presentation of the nature of Econometrics and its connection with economic theory: causation in the sense of ceteris paribus

• Simple and multiple regression analysis with cross sectional data: properties of estimators, functional forms, expected values and variances of least squares estimators, measurement of model goodness of fit

• Inference and sampling distributions of least squares estimators, hypothesis testing, multiple linear constraint testing, asymptotic properties of least squares

• Regression analysis with qualitative variables (binary or dummy variables)

• Heteroscedasticity analysis, heteroscedasticity tests and weighted least squares estimation

• Time series regression analysis, serial correlation and heteroscedasticity in regression analysis

• Panel data methods: fixed and random effects estimation

• Simultaneous equation models and limited dependent variable models (logit - probit)

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face Dinstance learning in case of exceptional circumstances
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, and communication with students*	• Use of presentation and spreadsheet software • Email communication with students • Support of the learning process using the eclass electronic platform.

TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, projects, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given, as well as the hours of non-directed study according to the principles of the ECTS.*		
	Activity	**Semester Workload**
	Lectures	40
	Study and analysis of bibliography	30
	Essays	50
	Exams	10
	Course Total (25 hours per ECTS)	**130**

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem-solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The evaluation of the students is done through two individual assignments and through written exams in the Greek language (which in exceptional circumstances is carried out electronically). The written exams are held at the end of the semester during the examination period. The final grade is the sum of the scores of the 2 assignments, each of which represents 20% of the final grade, and the final exam, which represents 60% of the final grade.

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Damodar Gujarati (2011) Econometrics by Example, Palgrave Macmillan, UK, ISBN-13: 978-0230290396.
- Brooks, C. (2008) Introductory Econometrics for Finance, 2nd Edition, Cambridge University Press.
- Jeffrey M. Wooldridge, (2009) Introductory Econometrics: A Modern Approach, South-Western; 4th edition. .
- Baltagi, B. H. (2005) Econometric Analysis of Panel Data, John Wiley, Chichester, UK.