

COURSE OUTLINE

(1) GENERAL

SCHOOL	Economics & Management Science		
ACADEMIC UNIT	Economics		
LEVEL OF STUDIES	Bachelor		
COURSE CODE		SEMESTER	3
COURSE TITLE	Econometrics I		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
Lectures		4	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Special background, and skills development		
PREREQUISITE COURSES:	Mathematics, Statistics, Microeconomics, Macroeconomics		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)			

(2) LEARNING OUTCOMES

<p>Learning outcomes <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p>Consult Appendix A</p> <ul style="list-style-type: none"> • Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area • Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B • Guidelines for writing Learning Outcomes

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
Adapting to new situations	Respect for difference and multiculturalism
Decision-making	Respect for the natural environment
Working independently	Showing social, professional and ethical responsibility and sensitivity to gender issues
Team work	Criticism and self-criticism
Working in an international environment	Production of free, creative and inductive thinking
Working in an interdisciplinary environment
Production of new research ideas	Others...

1. Search for, analysis and synthesis of data and information, with the use of the necessary technology
2. Decision-making
3. Working in an interdisciplinary environment
4. Production of free, creative and inductive thinking

(3) SYLLABUS

1. *Classical Linear Regression Model*
2. *Ordinary Least Squares (OLS) and Maximum Likelihood (ML) Estimators*
3. Econometric Tests
4. Applications of the *Classical Linear Regression Model*:
Seasonality
Analysis of Variance and Covariance
5. Problems of the *Classical Linear Regression Model*:
Multicollinearity
Number of Explanatory Variables
Specification Errors
Linearity of the Model
6. *Generalized Linear Regression Mode*
7. *Generalized Least Squares (GLS) and Maximum Likelihood (ML) Estimators*
8. Testing for *Heteroskedasticity and corrections*
9. Testing for *Autocorrelation and corrections*
10. Applications of the *Generalized Linear Regression Model*:
Using a priori information

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Use of ICT in teaching: laboratory teaching and exercises	
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i>	Activity	Semester workload
	Lectures	
	laboratory exercises	

<p>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</p> <p>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</p>		
		Course total
<p align="center">STUDENT PERFORMANCE EVALUATION</p> <p><i>Description of the evaluation procedure</i></p> <p><i>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</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>1. Written examination: Problemes to be solved and/or multiple choice questionnaires</p> <p>2. Laboratory work</p>	

(5) ATTACHED BIBLIOGRAPHY

<p>- Suggested bibliography:</p> <p>Text-books: choose one of the following:</p> <ol style="list-style-type: none"> 1. Stuenkel, A. (Εκδόσεις Πασχάλη, 2016): Οικονομετρία: Πρακτικός Οδηγός Χρήσης 2. Gujarati, D. (Εκδόσεις Τζιόλα, 2012): Οικονομετρία, Αρχές και Εφαρμογές 3. Wooldridge, J. (Εκδόσεις Παπαζήση, 2011): Εισαγωγή στην Οικονομετρία <p>Bibliography:</p> <ol style="list-style-type: none"> 1. Τζαβαλής, Η. (Εκδόσεις Ο.Π.Α., 2008): Οικονομετρία 2. Δρεττάκης, Μ. (Αθήνα, 1975/Ιωάννινα, 2003): Θεωρητική Οικονομετρία Ι 3. Δρεττάκης, Μ. (Αθήνα, 1975/Ιωάννινα, 2003): Γραμμική Άλγεβρα για τους σπουδαστές της Οικονομετρίας 4. Intriligator, M.D. (Εκδόσεις Gutenberg, 1982): Οικονομετρικά Υποδείγματα, Τεχνικές & Εφαρμογές 5. Chow, G.C. (McGraw Hill, 1983): Econometrics 6. Green, W.H. (Macmillan Publishing Company, 1993): Econometric Analysis 7. Johnston, J. (McGraw Hill, 1984): Econometric Methods 8. Gujarati, D. (McGraw Hill, 1978): Basic Econometrics 9. Maddala, G.S. (McGraw Hill, 1977): Econometrics <p>- Related academic journals:</p>
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