

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Economics and Management Science		
ACADEMIC UNIT	Department of Economics		
LEVEL OF STUDIES	6		
COURSE CODE	403	SEMESTER	3rd
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	
	4	7.5 ECTS	
<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, skills development		
PREREQUISITE COURSES:	Statistics II		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	no		
COURSE WEBSITE (URL)			

(2) LEARNING OUTCOMES

<p>Learning outcomes</p> <p><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><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>
<p>By the end of the course the student will be able to:</p> <ul style="list-style-type: none"> • Estimate, find confidence intervals and contact testing hypothesis on the parameters of the linear regression model with more than one explanatory variables • Understand the main estimation method on these models: least squares and maximum likelihood. • Understand the asymptotic properties of parameter estimates e.g. unbiasedness, consistency, efficiency.

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
 Adapting to new situations
 Decision-making
 Working independently
 Team work
 Working in an international environment
 Working in an interdisciplinary environment
 Production of new research ideas

Project planning and management
 Respect for difference and multiculturalism
 Respect for the natural environment
 Showing social, professional and ethical responsibility and sensitivity to gender issues
 Criticism and self-criticism
 Production of free, creative and inductive thinking

 Others...

Analysis and synthesis of Data.
 Team work
 Decision - Making

(3) SYLLABUS

1. The classical linear regression model (LRM) and their hypothesis
2. Least squares (LS) and maximum likelihood estimation methods for the LRM
3. Geometrical interpretation of the LS estimation method
4. Sampling properties of parameter estimates
5. Sampling distributions of parameter estimates
6. Confidence intervals
7. Testing hypothesis
8. Estimation of the regression models with linear restrictions
7. Forecasting with the linear regression model

(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>	e-mail and office hours are used for the communication with the students	
TEACHING METHODS <i>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, project, 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</i>	Activity	Semester workload
	Lectures,	52*3=156
	Computer laboratory practice	12*1=12
	Directed study	20*1=20
	Course total	188

<p style="text-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>written final exam in Greek language</p>
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(5) ATTACHED BIBLIOGRAPHY

<p>Elias Tzavalis (2008), Οικονομετρία (in Greek), Έκδοση ΟΠΑ. Theodoros Simos (2009), Τεχνικές οικονομετρίας και ανάλυσης χρονολογικών σειρών (in Greek) Εκδόσεις Πατάκη.</p>
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