

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF INFORMATION SCIENCES & TECHNOLOGY		
ACADEMIC UNIT	DEPARTMENT OF STATISTICS		
LEVEL OF STUDIES	1st Cycle (UNDERGRADUATE)		
COURSE CODE	6175	SEMESTER	7 th
COURSE TITLE	Econometrics		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
Lectures		4	8
Workshops			
Labs		2	
COURSE TYPE	Elective		
PREREQUISITE COURSES:	Regression and Introduction to economic analysis		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/stat/content/econometrics-8-ects		

(2) LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course students will be able to: know, identify, control and suggest ways to deal with violations of classical hypotheses of the classic linear multivariate regression model: autocorrelation - heteroscedasticity and multilinearity using linear algebra. Also, know what is, when they are used, under which conditions and how they are estimated: the simultaneously determined regressions – Systems of interdependent variables, the structural and reduced models and the Seemingly Unrelated Regression Equation Systems. Applications using R.
General Competences
• Search, analysis and synthesis of data and information, using the necessary technologies • Adaptation to new situations • Decision-making • Autonomous work • Teamwork • Working in an international environment • Working in an interdisciplinary environment • Generating new research ideas

- Respect for diversity and multiculturalism
- Respect for the natural environment
- Demonstrating social, professional and ethical responsibility and sensitivity to gender issues
- Exercising criticism and self-criticism
- Promoting free, creative and inductive thinking

(3) SYLLABUS

Introduction to econometrics. Hypotheses and variable stability tests – Hypotheses violations (using linear algebra). Systems of Codependent Variables, Structural – Reduced, Financial systems: Concept – Interpretation – Estimation. Consequences of ignoring explanatory variables endogeneity. Identifying the parameters of structural equations/regressions of a system: Identification conditions. The case of under-identification and over-identification.

Estimating structural parameters with Indirect Least Squares Method (ILS) – Instrumental Variables Method (IV) – 2SLS – 3SLS.

Seemingly Unrelated Regression Equation Systems (SURE): Estimation, Parameter Heterogeneity Test, models PANEL. Applications with economic data using R.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	YES	
TEACHING METHODS	Activity	Semester workload
	Lectures	40
	Lab Exercise	20
	Studying and Analyzing Bibliography	50
	Tutorial	15
	Project	15
	Assignment	10
	Self Study	50
	Course Total	200
STUDENT PERFORMANCE EVALUATION	Written examination at the end of the semester: 80% Written Assignment (Project): 20% Information is available at eclass	

(5) ATTACHED BIBLIOGRAPHY

• Τζαβαλής Η., (2008). «Οικονομετρία», Εκδόσεις Οικονομικού Πανεπιστημίου Αθηνών. • Johnston J., Dinardo J., Οικονομετρικές Μέθοδοι, Εκδόσεις Κλειδάριθμος ΕΠΕ, 2005. • Δριτσάκη Ν. Χάιδω, Δριτσάκη Ν. Μελίνα (2013) "Εισαγωγή στην Οικονομετρία με τη Χρήση του Λογισμικού EViews" Εκδ. Κλειδάριθμος.	
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