

COURSE OUTLINE

(1) GENERAL

SCHOOL	Faculty of Social, Political and Economic Sciences		
ACADEMIC UNIT	Department of Economics		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	NK52	SEMESTER	5th
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	6
<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>	General Background		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	HELLENIC		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES (ESSAY IN ENGLISH)		
COURSE WEBSITE (URL)	http://www.econ.duth.gr/undergraduate/lessons/%CE%9F%CE%B9%CE%BA%CE%BF%CE%BD%CE%BF%CE%BC%CE%B5%CF%84%CF%81%CE%AF%CE%B1%20CE%99.pdf		

(2) LEARNING OUTCOMES

Learning outcomes

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.

Consult Appendix A

- 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

The course in Econometrics aims at presenting and teaching the basic quantitative tools issued in all areas of Economics, in the understanding of the abilities and the limitations of these tools and the way to use them in actual or experimental data. During the semester the student meets linear regression models and basic statistical principles with a limited introduction to non-linear models. Moreover, the student participates in the development of simple real life examples of the application of the regression models from the entire span of Economics with a special attention to the policy implications of the various examples.

Upon completion of the course the student will be able to:

- Understand the basic principles of statistics and econometrics.
- apply and infer upon the empirical findings of linear regression models to simple economic phenomena.
- Examine and infer upon the existence of a causal relationship between variables and the policy implications from this relationship.
- Comprehend the application of various quantitative methodologies in different research areas of Economics and the ability to link the empirical findings with the theoretical foundations of the various economic exemplars.

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...

Working independently
Team work
Decision-making
Production of free, creative and inductive thinking

(3) SYLLABUS

1. Introduction to Econometrics
2. Review of basic concepts of Probability theory and Statistics
3. Basic Econometric principles
4. Simple linear regression with one dependent variable
5. Hypothesis testing
6. Empirical applications
7. Multiple regression
8. Hypothesis testing with many variables

9. Binary variables
10. Non-linear regression models

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	<i>Face-to-face</i>	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	The basic instrument for electronic communication, notes dissemination etc is the E-class	
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>	<i>Activity</i>	<i>Semester workload</i>
	Lectures	52
	Independent study	98
	Course total	150
STUDENT PERFORMANCE EVALUATION <i>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.</i>	<p>The evaluation is based entirely on the written examination at the end of the semester based on problems including short questions and answers, figure analysis, mathematical representations, judgment, proofs and problem solving.</p> <p>The examination criteria are made known at the start of the semester and are available at the E-class.</p>	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- 1) Gujarati and Porter, Introduction to Econometrics. (5th Edition), McGraw-Hill Press, 2008.
- 2) Hamilton. J., Times Series Analysis, (1st Edition), Princeton Press, 1994.
- 3) W.H. Greene, Econometric Analysis, (7th edition), Pearson Prentice Hall, 2011.
- 4) Wooldridge, Jeffrey M. Econometric Analysis of Cross Section and Panel Data. (2nd Edition), MIT Press, 2002.
- 5) J.H. Stock and M.W. Watson, (3rd edition), Introduction to Econometrics, Pearson Prentice Hall, 2003.

- Related academic journals:

Econometrica
Journal of Econometrics
Journal of Applied Econometrics
International Journal of Forecasting