COURSE OUTLINE

(1) GENERAL

SCHOOL	Economic Sciences		
ACADEMIC UNIT	Department Accounting and Finance		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	AF505	SEMESTER	Fifth
COURSE TITLE	Econometrics I		

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 of the course, give the weekly teaching hours and the total credits*	WEEKLY TEACHING HOURS	CREDITS
Lectures and laboratory exercises	3	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific field
PREREQUISITE COURSES:	Mathematics and Statistics
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	https://eclass.uowm.gr/courses/ACCFIN148/ (Note: students must register in the university's online platform, Eclass)

(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*

This course aims to provide an empirical content on economic theories using the econometric software EViews.

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

- Understand the methodology of econometric analysis and its usefulness in applied economics.
- Understand the concept of regression and its application in economic analysis.
- Understand the econometric problems arising in a regression model and propose solutions.
- Apply estimation techniques and tests of statistical hypotheses in a problem at hand.

- Evaluate the regression results and, if possible, provide economic policy recommendations.

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…*
	…….

Autonomous work
Production of new research ideas
Decision-making
Team work
Promotion of free, creative and inductive thinking

(3) SYLLABUS

1 Objective of Econometrics 1.1 The meaning of Econometrics 1.2 Aim of Econometrics 1.3 Econometric Analysis 1.4 How to solve an econometric model step by step 1.5 Categories of statistical data 1.6 Data sources 1.7 Data presentation

2. Simple Regression 2.1 Introduction 2.2 Determinative and stochastic relationships 2.3 Regression line of population 2.4 Ordinary Least Squares Method 2.5 Properties of Regression Line 2.6 Assumptions of simple linear regression model 2.7 Gauss-Markov Theorem 2.8 Regression without a constant 2.9 Statistical inference 2.10 Confidence interval of β0 and β1 parameter 2.11 Testing hypothesis of β0 and β1 parameter 2.12 F distribution testing. Analysis of variance 2.13 Coefficient of determination R2 2.14 Correlation coefficient 2.15 Forecasting simple regression model 2.16 Confidence interval for expected value E(Y) 2.17 Confidence interval for forecasting 2.18 Regression coefficient and elasticity 2.19 Exercises using EViews

3. Multiple Regression 3.1 Introduction 3.2 The linear regression model with three variables 3.3 Three variable model with matrices 3.4 k variable model with matrices 3.5 Basic assumptions of multiple linear model 3.6 Least squares method 3.7 Properties of β estimator 3.8 Gauss-Markov theorem 3.9 Confidence interval of multiple regression parameters 3.10 Testing statistical significance of

multiple linear regression model 3.11 Analysis of variance in multiple linear regression model 3.12 Coefficient of determination multiple R2 3.13 Relationship between F statistic and multiple R2 3.14 Partial correlation coefficients 3.15 Choosing between regression models 3.16 Testing linear relationships between regression coefficient 3.17 Exercises using EViews
4. Hypotheses violation of a model: Diagnostic Tests of Residuals 4.1 Normality 4.2 Autocorrelation 4.3 Heteroscedasticity

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Support the learning process using the Eclass online platform Laboratory education using econometric software EViews
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, 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*	
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.*	Mid term Exam 30% Final Exams (short answer questions, multiple choice questions, problem solving) 70%

Activity	*Semester workload*
Lectures and Laboratory practice	39 hours
Individual and semi guided study	111 hours
Course total	*150 hours*

(5) SUGGESTED BIBLIOGRAPHY

Δριτσάκη, Χ. και Μ. Δριτσάκη (2020) Εισαγωγή στην Οικονομετρία με τη χρήση του E- Views,Β' Έκδοση, Εκδόσεις Κλειδάριθμος, Αθήνα

Βάμβουκας, Γ. (2007). Σύγχρονη Οικονομετρία: Ανάλυση και Εφαρμογές, Αθήνα, Οικονομικό Πανεπιστήμιο Αθηνών.

Βενέτης, Ι. (2009) Εισαγωγικές διαλέξεις στην Οικονομετρία, Γκιούρδας Εκδοτική, Αθήνα

Χρήστου, Κ. Γ. (2002). Εισαγωγή στην Οικονομετρία. Αθήνα. Gutenberg.

Asteriou, D. and Hall, S. (2018) Εφαρμοσμένη Οικονομετρία, Εκδόσεις Προπομπός, Αθήνα

Gujarati D. N. (2003). Basic Econometrics, New York, McGraw-Hill.
Dritsaki C., Dritsaki M. (2013). "Hysteresis in unemployment: an empirical research for three member states of the European Union", Theoretical and Applied Economics, Vol. XX, No. 4(581), pp. 35-46. (Impact Factor).
Dritsaki M., Dritsaki C. (2012). "A panel data approach to the demand for money in Bulgaria and Romania", Applied Economics Letters, Vol. 19. No. 8. pp. 705-710. (Impact Factor).
Dritsaki C. (2009). "Bulgaria –Romania: A nexus between European Union and Black Sea Region", Journal of World Economic Review. Vol. 4, No.1, pp. 1 – 5. 10.