COURSE OUTLINE

(1) GENERAL

SCHOOL	ECONOMICS AND POLITICAL SCIENCES		
ACADEMIC UNIT	ECONOMICS		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	**QNT202**	**SEMESTER**	**4th**
COURSE TITLE	Econometrics		

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	6	7
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*	General background Skills development
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	https://eclass.uoa.gr/courses/ECON189/

(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*

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

1. Understand the importance and the results of using Econometrics for the study of many problems in Economics.
2. Understand the linear multiple regression model and its connection to Economics.
3. Be familiar with extensions of the linear multiple regression model (non-linear models, dummy variable technique, dynamic models, and systems of equations) and their connection to Economics.
4. Be able to estimate economic relationships using the least squares method and test them, as well as to perform forecasts of economic variables.
5. Be familiar with the theoretical assumptions that govern the least squares method and the consequences of violating these assumptions (in cases of perfect multicollinearity, heteroskedasticity, autocorrelation, and endogeneity).
6. Be able to test the theoretical assumptions and know alternative estimation methods (generalized least squares method and instrumental variables method) in cases where these assumptions are violated.
7. Be able to understand and critically evaluate reports of econometric analyses in Economics that they will encounter in their future academic and/or professional careers.

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. Scientific way of thinking and expression
2. Search for, analysis and synthesis of data and information, with the use of the necessary technology
3. Working independently
4. Production of inductive thinking
5. Working in an interdisciplinary environment
6. Adapting to new situations

(3) SYLLABUS

1. Linear model: Multivariate regression and ordinary least squares method.
2. Statistical tests of the linear model. Predictions.
3. Extensions of the linear model. Dummy variables technique.
4. Stochastic variables.
5. Heteroskedasticity. Autocorrelation. Generalized least squares method.
6. Endogeneity. Instrumental variables method. Specification error.
7. Dynamic models.
8. Systems of equations: Basic concepts, identification and estimation methods.

(4) TEACHING and LEARNING METHODS - EVALUATION

<table>
<tr><td>DELIVERY
Face-to-face, Distance learning, etc.</td><td>Face-to-face</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students</td><td>Use of projector for presentations in teaching.
Use of the e-class electronic platform for posting course material and announcements.
Use of email for communication with students.</td></tr>
<tr><td>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</td><td><table><tr><th>Activity</th><th>Semester workload</th></tr><tr><td>Lectures</td><td>78</td></tr><tr><td>Study of notes and bibliography</td><td>47</td></tr><tr><td>Solving exercises</td><td>50</td></tr><tr><td>Course total</td><td>175 hours</td></tr></table></td></tr>
<tr><td>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.</td><td>The course evaluation is conducted in Greek.
The written evaluation includes questions solving problems.
The examination syllabus, procedures, and evaluation criteria are communicated to students during the lectures and by posting relevant announcements and material on the e-class electronic platform.</td></tr>
</table>

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

1. Greek:

   Η. Τζαβαλής, «Οικονομετρία», Εκδόσεις Οικονομικού Πανεπιστημίου Αθηνών, 2008.

   Γ. Κ. Χρήστου, «Εισαγωγή στην Οικονομετρία», Gutenberg, 2011.
2. English:

   J. H. Stock and M. W. Watson, “Introduction to Econometrics”, 4th edition, Pearson, 2020.

   J. M. Wooldridge, “Introductory Econometrics: A Modern Approach”, 8th edition, Cengage, 2025.