



UNIVERSITY OF PIRAEUS

FACULTY/SCHOOL	School of Economics, Business and International Studies		
DEPARTMENT	Department of Economics		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	OKOIM01	SEMESTER	5th
COURSE TITLE	ECONOMETRICS I		
WEEKLY TEACHNG HOURS	4	CREDITS (ECTS)	6
COURSE TYPE	Mandatory		
PREREQUISITE COURSES	-		
INSTRUCTION LANGUAGE	English	ASSESSMENT LANGUAGE	English
OPEN TO ERASMUS	Yes		

LEARNING OUTCOMES	<p>The current course provides a thorough presentation of the basic quantitative technique used in Economics to empirically identify the behavior of many phenomena. The course discusses the concept of a random variable, presents the distributions of continues random variables and reviews the basic statistical analysis of one variable. Next, it covers the correlation analysis, properties of the correlation coefficient and hypothesis testing. The simple regression model with all its characteristics, i.e., estimation, goodness of fit, distributions and properties of the estimators, Gauss-Markov theorem, hypothesis testing and forecasting is presented afterwards. The course presents next the multiple regression model with all its characteristics, i.e., estimation, coefficients of determination and adjusted coefficient of determination, properties of estimators and distribution, all the tests, ANOVA analysis and forecasting.</p> <p>The tools students will learn in this course will allow them to analyze real data and derive policy conclusions for Economics and Business issues.</p>
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GENERAL COMPETENCES	<ul style="list-style-type: none"> • Data analysis • Estimating relations for identifying the behavior of a phenomenon and for forecasting • Quantitative analysis • Correlation and Regression Analysis • Decision Making process • Project planning and management
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COURSE CONTENT	<ul style="list-style-type: none"> • Basic concepts of deterministic versus stochastic models • Random variables and distributions of continues random variables • Statistical inference • Correlation Analysis • Simple regression model – Estimation – Testing and Forecasting • Multiple regression model - Estimation – Testing and Forecasting
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USE OF ICT IN TEACHING	Use of ICT in lectures
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COURSE DESIGN		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Activity/Method</th> <th style="width: 40%;">Semester workload</th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td style="text-align: center;">52</td> </tr> <tr> <td>Tutorials</td> <td style="text-align: center;">12</td> </tr> <tr> <td>Study</td> <td style="text-align: center;">58</td> </tr> <tr> <td>Exercises</td> <td style="text-align: center;">26</td> </tr> <tr> <td>Exam</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Total</td> <td style="text-align: center;">150</td> </tr> </tbody> </table>	Activity/Method	Semester workload	Lectures	52	Tutorials	12	Study	58	Exercises	26	Exam	2	Total	150
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COURSE ASSESSMENT	The evaluation of the course is implemented through a final examination.
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SUGGESTED BIBLIOGRAPHY	<p>-Suggested bibliography:</p> <ul style="list-style-type: none"> • Agiakloglou, C. and Benos, T. “Principles of Econometric Analysis” <p>- Related Journal: Journal of econometrics</p> <ul style="list-style-type: none"> • Journal of applied econometrics • Journal of quantitative economics • Journal of applied economics
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