UNIVERSITY OF PIRAEUS

FACULTY/SCHOOL	School of Economics, Business and International Studies		
DEPARTMENT	Department of Economics		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	OKOIM03	SEMESTER	7th
COURSE TITLE	TOPICS IN APPLIED ECONOMETRICS		
WEEKLY TEACHNG HOURS	4	CREDITS (ECTS)	5
COURSE TYPE	Elective		
PREREQUISITE COURSES	-		
INSTRUCTION LANGUAGE	English	ASSESSMENT LANGUAGE	English
OPEN TO ERASMUS	Yes		

LEARNING OUTCOMES	The current course provides a thorough presentation of time series analysis used in econometrics to empirically identify the behavior of many phenomena. The course reviews topics in time series analysis using deterministic models and then it presents the Box and Jenkins methodology known as ARMA analysis for all cases of stationary, invertible as well as for non-stationary processes. Next it discusses issues in unit root testing, spurious regression, ARCH models, Granger causality, cointegration and error correction model. The concepts of short run versus long run behavior are also covered. The tools students will learn in this course will allow them to analyze real time series data and derive policy conclusions for Economics, Finance and Business issues.
GENERAL COMPETENCES	• Time series data analysis • Identifying and forecasting the behavior of a phenomenon • Quantitative analysis • Decision Making process • Project planning and management
COURSE CONTENT	• Basic concepts of time series analysis • Box and Jenkins ARMA analysis • Issues in stationary and invertible processes • Autocorrelation and partial autocorrelation functions • Estimation and forecasting • Non-stationary processes • Unit root issues and testing • Spurious regression and ARCH models • Granger Causality • Cointegration and error correction models.
USE OF ICT IN TEACHING	Use of ICT in lectures

COURSE DESIGN	Activity/Method	Semester workload
	Lectures	52
	Tutorials	10
	Study	35
	Exercises	26
	Exam	2
	Total	125

COURSE ASSESSMENT	The evaluation of the course is implemented through a final examination.
SUGGESTED BIBLIOGRAPHY	-Suggested bibliography: • Dimeli, S. "Recent methods of Time Series Analysis" - Related Journal: Journal of econometrics • Journal of applied econometrics • Journal of time series analysis • Journal of applied economics