



UNIVERSITY OF PIRAEUS

1) GENERAL

SCHOOL	ECONOMICS, BUSINESS AND INTERNATIONAL STUDIES		
ACADEMIC UNIT	ECONOMICS		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	OKOIM03	SEMESTER	7
COURSE TITLE	TOPICS IN APPLIED ECONOMETRICS		
INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS	CREDITS	
Lectures	4	6	
COURSE TYPE	Scientific Expertise		
PREREQUISITE COURSES	-		
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)	https://eclass.unipi.gr/courses/OEP141/		

2) LEARNING OUTCOMES

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

3) SYLLABUS

- 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.

4) TEACHING and LEARNING METHODS

DELIVERY	In class lectures	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Use of ICT in lectures	
TEACHING METHODS	Activity	Semester workload
	Lectures	52
	Study	40
	Exercises	31
	Exam	2
	Course Total	125
STUDENT PERFORMANCE EVALUATION	The evaluation of the course is implemented through a final examination.	
ATTACHED BIBLIOGRAPHY	<ul style="list-style-type: none">• Suggested Bibliography:<ul style="list-style-type: none">○ Dimeli, S. "Recent methods of Time Series Analysis"• - Related Journals: :<ul style="list-style-type: none">○ Journal of Econometrics○ Journal of Applied Econometrics○ Journal of Quantitative Economics○ Journal of Applied Economics	