

COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Economics and Management Science		
ACADEMIC UNIT	Department of Economics		
LEVEL OF STUDIES	6		
COURSE CODE	723	SEMESTER	7 th
COURSE TITLE	Economic Applications using Software Packages		
INDEPENDENT TEACHING ACTIVITIES <i>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</i>		WEEKLY TEACHING HOURS	CREDITS
		4	6 ECTS
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	special background		
PREREQUISITE COURSES:	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	no		
COURSE WEBSITE (URL)			

(2) LEARNING OUTCOMES

Learning outcomes <i>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.</i> <i>Consult Appendix A</i> <ul style="list-style-type: none"> • 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 	
<p>By the end of the course the student will be able to:</p> <ul style="list-style-type: none"> - Use modern software packages in economic applications, econometrics, applied economics and statistics - Use basic programming languages 	
General Competences <i>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?</i>	
<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i> <i>Adapting to new situations</i> <i>Decision-making</i> <i>Working independently</i> <i>Team work</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>Project planning and management</i> <i>Respect for difference and multiculturalism</i> <i>Respect for the natural environment</i> <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> <i>Criticism and self-criticism</i> <i>Production of free, creative and inductive thinking</i> <i>.....</i> <i>Others...</i> <i>.....</i>

Search for, analysis and synthesis of data and information, with the use of the necessary technology
 Working independently
 Working in an interdisciplinary environment
 Criticism and self-criticism
 Production of free, creative and inductive thinking

(3) SYLLABUS

Software Packages' Overview: Notational Conventions and Typesetting / Palettes / Character Formatting / Syntax and Basic Commands / Calculus / Linear Algebra / Equations / Plots / Saving Files

Statistics: Presenting and Summarizing Data / Estimating Data Parameters / Parametric Tests of Hypotheses / Non-Parametric Tests of Hypotheses / Statistical Classification / Data Regression

Economics: Consumer Choice and the Lagrangian Multiplier Method / Individual and Market Demand / Pure Exchange / Intertemporal Trade / Choice under Uncertainty and Imperfect Information / Cost Minimization / Short- and Long-run Costs / Duality / Profit Maximization / Production and Trade / Dynamic Optimization and the Calculus of Variation.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Use of ICT in teaching, laboratory education, communication with students	
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>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.</i> <i>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</i>	Activity	Semester workload
	Lectures,	52
	directed study	48
	non-directed study	50
	Course total	150 hours
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <i>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</i>	Multiple choice questionnaires Laboratory work Oral presentations	

<i>examination of patient, art interpretation, other</i> <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	Written final exam
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(5) ATTACHED BIBLIOGRAPHY

1) Προγραμματίζοντας σε matlab, Στεφανάκος Χ.Ν 2) Εισαγωγή στο Mathematica, Παπαδάκης Κωνσταντίνος Ε.
