

COURSE OUTLINE

(1) GENERAL

SCHOOL	ECONOMIC AND MANAGEMENT SCIENCE		
ACADEMIC UNIT	DEPARTMENT OF ECONOMICS		
LEVEL OF STUDIES	6		
COURSE CODE	408	SEMESTER	6-8
COURSE TITLE	Statistics III		
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>	General background		
PREREQUISITE COURSES:	Statistics I and II		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	HELLENIC, HELLENIC (ENGLISH, ENGLISH TO ERASMUS STUDENTS)		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	http://users.uoi.gr/dhatzini		

(2) LEARNING OUTCOMES

<p>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></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>
<p>Knowledge of advanced statistical tools Understanding statistical analysis Applications to real-world phenomena Writing a short report of a small-scale original empirical research Evaluation of statistical results</p>

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
Adapting to new situations
Decision-making
Working independently
Team work
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas

Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
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Others...
.....

Decision-making
Working independently
Team work
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas

(3) SYLLABUS

The course is a continuation of Statistics II and covers the following topics: (1) Goodness-of-fit tests; (2) chi-square tests for independence (contingency tables); (3) non-parametric tests; (4) linear regression with stochastic explanatory variables; (5) non-linear regression; (6) correlation (simple, multiple, partial, multiple-partial, non-linear, rank correlation, spurious correlation); (7) one-way analysis of variance; (8) testing the randomness of the sample; (9) index numbers; and (10) basic ideas from modern time-series analysis. About 8 lab sessions are offered, where students learn how to implement the methods in SPSS and how to carry out their empirical project, which is optional.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face
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<p>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY Use of ICT in teaching, laboratory education, communication with students</p>	Use of ICT in teaching, laboratory education, communication with students	
<p>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.</p> <p>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</p>	<p>Activity</p>	<p>Semester workload</p>
	LECTURES	40*3=120
	RECITATIONS	20*1=20
	LABORATORY	10*1=10
Course total	150	
<p>STUDENT PERFORMANCE EVALUATION Description of the evaluation procedure</p> <p>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</p> <p>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</p>	<p>(1) MIDTERM EXAMINATION (optional, 20%), (2) FINAL EXAMINATION (compulsory: 80% for students who do better in the mid-term test, and 100% for those who do not take the mid-term test, or take it but do better in the final). (3) PROJECT (up to two extra marks, provided a student gets 5/10 or better in the exams, weighted as was indicated above).</p> <p>The midterm test consists of 20 multiple-choice questions, whereas the final exam consists of 30 multiple-choice questions, all in Greek.</p>	

(5) ATTACHED BIBLIOGRAPHY

<p>- Suggested bibliography: - Related academic journals:</p> <ol style="list-style-type: none"> 1. <i>Statistics for Economists</i>, D. Hatzinikolaou, Ioannina 2002, (Chs. 10-17, in Greek). 2. Two sets of typed notes, one on regression (51 pages, in Greek), and another on time-series (13 pages, in Greek). 3. Three problem sets (in Greek, uploaded in http://users.uoi.gr/dhatzini)
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