COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Economics and Administrative Sciences		
ACADEMIC UNIT	Department of Economics		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	**OIK408**	**SEMESTER**	**6th & 8th**
COURSE TITLE	Statistics III		

INDEPENDENT TEACHING ACTIVITIES *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*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures and Laboratory Exercises	4	
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special Background
PREREQUISITE COURSES:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	
COURSE WEBSITE (URL)	

(2) LEARNING OUTCOMES

Learning outcomes
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.
Consult Appendix A   • *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*

Upon successful completion of the course, the student is expected to:

• Describe and summarize data through measurements such as the mean, median, and standard deviation, as well as visualize data through graphs.
• Understand the basic principles of probability and how it can be used for modeling uncertainty and making predictions.
• Draw conclusions regarding population parameters based on sample data.
• Apply hypothesis testing regarding population parameters and make decisions on whether to accept or reject these hypotheses based on the data.
• Analyze the relationship between two or more variables.
• Analyze data collected over time, such as sales data or stock prices, to understand trends and patterns.
• Apply regression analysis.

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	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
	Showing social, professional and ethical responsibility and

Working independently	*sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*......*
Production of new research ideas	*Others...*
	....

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Decision-making
- Working in an interdisciplinary environment
- Production of new research ideas

(3) SYLLABUS

- Estimation and Confidence Intervals

- Hypothesis Testing
- Qualitative Data Analysis
- Goodness-of-Fit Tests
- Correlation
- Analysis of Variance
- Simple Linear Regression
- Multiple Linear Regression
- Logistic Regression
- Nonparametric Tests
- Time Series Analysis

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Specialized Office Software – PowerPoint for the theoretical part of the course. Support for the learning process through the e-course electronic platform.	
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.* *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*	*Activity*	*Semester workload*
	Lectures	48h
	laboratory practice	16h
	Course total	64h
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *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* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	The evaluation of students, in order to provide them with options, preferences, and efficient use of their time, is conducted in two ways: I. Project Work (20%) and Written Final Examination (80%). The project work is optional but requires intensive student engagement with the subject matter. II. Written Final Examination 100% for students who do not undertake project work. The Written Final Examination includes:	

	Problem-Solving Questions and Multiple-Choice Questions

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:
- Related academic journals:

- "Statistical Methods for Economics" by Paul A. Newbold, William L. Carlson, and Betty Thorne
- "Introductory Business Statistics" by Thomas H. Wonnacott and Ronald J. Wonnacott
- "Statistics for Business and Economics" by Paul Newbold, William L. Carlson, and Betty Thorne
- "Statistical Techniques in Business and Economics" by Douglas A. Lind, William G. Marchal, and Samuel A. Wathen