



COURSE DESCRIPTION

1. GENERAL

SCHOOL	ECONOMIC SCIENCES		
DEPARTMENT	TOURISM		
LEVEL	Undergraduate		
COURSE CODE	MAT110	SEMESTER	2 nd
COURSE TITLE	Business Statistics		
INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS	ECTS	
Lectures	4	5	
COURSE CATEGORY	General Background		
COURSE TYPE	Compulsory		
PREREQUISITES	-		
LANGUAGE OF TEACHING AND EXAMINATIONS	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS			
URL	https://tourism.ionio.gr/en/undergraduate-studies/courses/1159/		
ECLASS			

2. TEACHING RESULTS

Teaching Results
Upon successful completion of the course, students will be able to: <ul style="list-style-type: none">- understand the role and applications of statistics, particularly in problems of economic nature and business management- understand the basic concepts of statistics and the natural interpretation of statistical quantities in descriptive and inferential statistics- apply appropriate statistical methodology, understand and interpret statistical conclusions- understand the concept of a random variable and its probability distribution- understand and use the basic statistical principles underlying the estimation of characteristics of a population based on a random sample- draw conclusions about a statistical population on the basis of confidence intervals using data from a random sample- perform statistical hypothesis tests for a population mean/ population variance/population proportion- use linear regression as a statistical modelling technique to investigate the association between a dependent variable and an independent variable and interpret the results of the regression- present the technical results in a clear and understandable way- provide interpretation and critical evaluation of empirical analysis results- read and understand at an introductory level reports and articles that make use of the concepts and methods introduced in the course



General Skills

- Seek, analyze and synthesize data
- Adaptation to new environments
- Decision making
- Freedom of thought

3. CONTENT

The aim of this course is to introduce students to the concepts and methodologies of Statistics with the aim of understanding its basic principles, the ability to apply the appropriate statistical tools and the correct interpretation of statistical results. Particular emphasis will be placed on applications in economics and business administration and the familiarization of students with appropriate statistical analysis software.

Descriptive Statistics: Measures of Central Tendency, Measures of Dispersion, Shape of frequency distributions

Introduction to Probability - Introduction to probability distributions

Discrete Probability Distributions: Uniform, Binomial, Poisson

Continuous Probability Distributions: Normal distribution, Chi-square distribution, Student t-distribution

Estimation, Sampling, Confidence Intervals

Hypothesis testing about the the population mean/population proportion/population variance

Correlation and Linear Regression

4. TEACHING AND LEARNING METHODS - EVALUATION

TEACHING METHOD	Lectures										
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	<p>Use of ICT in Teaching: Electronic Classroom Management System (Open eClass), Powerpoint slides, lecture notes in pdf, spreadsheets, appropriate programs (software) for statistical data analysis</p> <p>Use of ICT in Communication: Communication with students is achieved through the use of the Electronic Classroom Management System (Open eClass) and e-mail</p>										
TEACHING STRUCTURE	<table> <tr> <td>Activity</td> <td>Semester Workload</td> </tr> <tr> <td>Lectures</td> <td>52</td> </tr> <tr> <td>Literature Study and Analysis</td> <td>30</td> </tr> <tr> <td>Practice and Preparation</td> <td>43</td> </tr> <tr> <td>Course Total (ECTS: 5)</td> <td>125</td> </tr> </table>	Activity	Semester Workload	Lectures	52	Literature Study and Analysis	30	Practice and Preparation	43	Course Total (ECTS: 5)	125
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Course Total (ECTS: 5)	125										
EVALUATION OF STUDENTS	<p>Written final examination, of graded difficulty, which may include:</p> <ul style="list-style-type: none"> • Multiple-choice questions. • Short Answer Questions • Problem solving/exercises <p>The individual assessment grades are indicated next to each topic.</p> <p>Interim assessments (progress tests) may be given. Their details (examination format, date, time, subject matter, weighting coefficient, etc.) are announced in good time. Interim assessments do not exempt the student from the final examination.</p> <p>The course calendar, the assessment criteria and</p>										



weightings will be made known to students at the start of the course. Instructor reserves the right to adjust the pace to accommodate class progress. Students are responsible for keeping up with all adjustments to the course calendar.

5. BIBLIOGRAPHY

Basic Business Statistics, Concepts and Applications, Mark L. Berenson, David M. Levine, Kathryn A. Szabat, David F. Stephan, Global Edition, Pearson Education Limited 2020

Statistics for Business & Economics 14th Edition, David R. Anderson, Dennis J. Sweeney, Thomas A. Williams, Jeffrey D. Camm, James J. Cochran, 2019, Cengage Learning

Business Statistics, Norean R. Sharpe, Richard D. De Veaux, Paul F. Velleman, 2023, Pearson

Statistics for Management and Economics, Gerald Keller, 11th edition, 2017, Cengage Learning

Business Statistics Using Excel, Glyn Davis, Branko Pecar, 2nd edition, 2013, Oxford University Press

IBM SPSS Statistics 19 Guide to Data Analysis, Marija J. Norusis, 1st edition, 2011, Addison Wesley