

UNIVERSITY OF PIRAEUS

	School of Fearomics, Business and Internationa	l Studios			
	Department of Economics				
	Graduato				
		SEMESTER	1th		
		SEIVIESTER	100		
	STATISTICST				
WEEKLY TEACHNG HOURS	4	CREDITS (ECT	rs)	6	
COURSE TYPE	Background knowledge				
PREREQUISITE COURSES	-				
INSTRUCTION LANGUAGE	Greek/English (in case of Erasmus students)	ASSESSMENT	T LANGUAGE	Greek	
OPEN TO ERASMUS	Yes				
LEARNING OUTCOMES					
	After completing the course, the students will be able to:				
	Re aware of the importance of statistical measures and interpret their values in the various				
	• Be aware of the importance of statistical measures and interpret their values in the various				
	Identify in which type of data the appropriate graphs can be used				
	• Understand the concept of probability and conditional probability				
	Calculate the probabilities in real problems using data and basic properties of probabilities				
	Be aware of the concept of discrete and continuous random variables				
	Identify the different types of problems, their distribution and characteristics				
	Be aware of the importance and properties of the normal distribution				
GENERAL COMPETENCES	Search, analyze and synthesize data and information				
	Solving economic and business problems by applying quantitative methods				
	Support for decision-making				
COURSE CONTENT	Introduction to Statistics. Descriptive Statistics- Data, types of variables, measurement scales,				
	measures of central tendency and dispersion, graphs, histograms, Tcebyshev theorem.				
	Introduction to Probabilities – Random, simple	Introduction to Probabilities – Random, simple and composite events, event space, probability			
	definition and axioms, joint probability, rule of Bayes. Random variables & distributions.				
	functions, common theoretical distributions. The normal distribution				
	Tunctions, common theoretical distributions. If	ne normal distribut	LION.	deboote	
	Activity/Mothod	ackages (iviinitab, S	estor workload	asheets	
		Jenie	52		
	Tutorials		12	_	
	Study		58	_	
	Exercises		46	_	
	Exam		2	_	
	Total		150		
COURSE ASSESSMENT	Written examination having the form of a test with question of multiple choice or short				
	description answers.				
	Especially for the ERASMUS students, the evaluation is based on a written essay to solve a real-life				
	complex problem which requires the application of the theory and the methods presented in the				
	course.				
SUGGESTED BIBLIOGRAPHY	-Suggested bibliography:				
	Book 1. Introduction to probability theory and applications, M. Koutras ISBN: 978-960-93-				
	8093-5 Code in Eudoxus : 68375482, Editor: A. Tsotras				
	Book 2. Introduction to probability theory with elements of Statistics. D. Bertekas, G. Tsitsiklis				
	Code in Eudoxus : 33114257, Editor : Iziolas				
	Book 3. Methods for decision analysis in business – 4th edition, I. Chalkias, Code in Eudoxus :				
	59377478, Editor: Rosili				