

COURSE OUTLINE

(1) GENERAL

SCHOOL	SCHOOL OF INFORMATION SCIENCES & TECHNOLOGY		
ACADEMIC UNIT	DEPARTMENT OF STATISTICS		
LEVEL OF STUDIES	1st Cycle (UNDERGRADUATE)		
COURSE CODE	6110-45	SEMESTER	3 rd
COURSE TITLE	ERASMUS BIP: BLENDED MOBILITY FOR STUDIES		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
Lectures			3-6, depending on the length of stay to the Host University
Workshops			
Labs			
COURSE TYPE	Elective		
PREREQUISITE COURSES:	The student has the right to participate in the program only once (1) during his/her studies. Students are eligible for participating in the program: <div><div>1.</div><div>At least in the second year of studies</div></div> <div><div>2.</div><div>Have accumulated at least, at the time of their application, 60 credits (ECTS), including courses from the 1st year of studies.</div></div> <div><div>3.</div><div>Have a good knowledge of the language of the Host Institution (level B2)</div></div>		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	English		
IS THE COURSE OFFERED TO ERASMUS STUDENTS			
COURSE WEBSITE (URL)	https://www.dept.aueb.gr/en/stat/content/erasmus-bip-mixed-mobility-studies-3-6-ects		

(2) LEARNING OUTCOMES

Learning outcomes
<p>Students will be able to:</p> <ul style="list-style-type: none"> • Understand basic concepts of Statistical Inference and its practical applications. • Analyze data using statistical techniques. • Develop and evaluate statistical models. • Apply statistical techniques to solve real problems. • Use statistical packages and software. • communicate their results in a clear and easily understandable manner.
General Competences
<ul style="list-style-type: none"> • Adaptation to new situations • Decision-making

- Independent work
- Teamwork
- Working in an international environment
- Generation of new research ideas
- Critical and self-critical thinking
- Promotion of free, creative, and inductive thinking

(3) SYLLABUS

Statistical models, Inference and Statistical Learning, Estimating the cumulative distribution function, Bootstrap, Parametric Statistical Inference, Hypothesis testing and p-values, Linear and Logistic Regression, Choosing and evaluating the optimal model, Time Series analysis.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Online meetings, short visits in person in the Host University, as described in the signed Multilateral Inter-Institutional Agreement between the Universities involved	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	YES	
TEACHING METHODS	Activity	Semester workload
	Course total	
STUDENT PERFORMANCE EVALUATION	Pass/fail after a 10 – 15 min presentation and communication between Academic Officers of the Department and the Host University.	

(5) ATTACHED BIBLIOGRAPHY

- Larry Wasserman (2003). All of Statistics - A Concise Course in Statistical Inference. Springer New York, NY
- Trevor Hastie, Robert Tibshirani, Jerome Friedman (2009) - The Elements of Statistical Learning - Data Mining, Inference, and Prediction, Second Edition. Springer New York, NY