

## COURSE OUTLINE: STATISTICS II

### (1) GENERAL

<b>SCHOOL</b>	School of Economic Sciences		
<b>ACADEMIC UNIT</b>	Department of Accounting and Finance		
<b>LEVEL OF STUDIES</b>	Undergraduate		
<b>COURSE CODE</b>	AF206	<b>SEMESTER</b>	2 <sup>nd</sup>
<b>COURSE TITLE</b>	Statistics II		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <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>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
Lectures and exercises		3	5
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	Specialised general knowledge		
<b>PREREQUISITE COURSES:</b>			
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	YES		
<b>COURSE WEBSITE (URL)</b>			

### (2) LEARNING OUTCOMES

<p><b>Learning outcomes</b></p> <p><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>Consult Appendix A</p> <ul style="list-style-type: none"> <li>• <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Guidelines for writing Learning Outcomes</i></li> </ul> <p>The course focuses on estimation (point estimate and confidence intervals). The basic principles of inductive statistics or statistical inference are developed and theoretically consistent ways of generalizing to the population of statistical inferences derived from random samples are presented.</p> <p>Upon the successful completion of the course, the students will be able to:</p> <ul style="list-style-type: none"> <li>• Know the basic methods of sampling.</li> <li>• Know the properties of the estimators (unbiasedness, consistency, efficiency).</li> <li>• Know the asymptotic properties of estimators.</li> <li>• Know how to construct confidence intervals for parameters.</li> <li>• Comprehend what the confidence intervals refer to.</li> </ul>
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### 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
Working independently	Showing social, professional and ethical responsibility and 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...
	.....

- Production of probabilistic and inductive thinking
- Search for, analysis and synthesis of data and information
- Working independently
- Team work

### (3) SYLLABUS

The content of the course includes:

- Point estimates
- Properties of estimators
- Asymptotic properties of estimators
- Confidence intervals of mean and variance
- Asymptotic confidence intervals

#### (4) TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	Face-to-face	
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>	Use of the electronic platform e-class	
<b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail.</i> <i>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.</i>  <i>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</i>	<b>Activity</b>	<b>Semester workload</b>
	lectures	15
	written assignment	50
	exercises	30
independent study	55	
Course total	<b>150</b>	
<b>STUDENT PERFORMANCE EVALUATION</b> <i>Description of the evaluation procedure</i>  <i>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</i>  <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	I. Final written exams (60%) including: -Theoretical questions -Problem solving based on valuation methods and quantitative data.  II. Written assignment in groups or individually (40%).	

#### (5) SUGGESTED BIBLIOGRAPHY

<p>Ανάλυση δεδομένων και μεθοδολογία έρευνας, Νικόλαος Σαριαννίδης, Γεώργιος Κοντέος, ISBN: 978-618-84462-4-3, εκδόσεις ΑΛΕΞΑΝΔΡΟΣ</p> <p>2. Εφαρμοσμένη Στατιστική, Μπόρα - Σέντα Ε., Μουσιάδης Χρόνης Θ., ISBN: 960-431-184-0, εκδόσεις Ζήτη</p>
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