COURSE OUTLINE

STATISTICS

1. GENERAL

SCHOOL	CLASSICS AND HUMANITIES		
DEPARTMENT/UPS	HUMANITIES / DIGITAL APPLICATIONS IN ARTS AND CULTURE		
LEVEL OF STUDIES	UNDERGRADUATE – LEVEL 6		
COURSE CODE	**XXXXX**	**SEMESTER**	2ND
COURSE TITLE	STATISTICS		

TEACHING ACTIVITIES *If the ECTS Credits are distributed in distinct parts of the course e.g. lectures, labs etc. If the ECTS Credits are awarded to the whole course, then please indicate the teaching hours per week and the corresponding ECTS Credits.*	**TEACHING HOURS PER WEEK**	**ECTS CREDITS**
	3	6
Please, add lines if necessary. Teaching methods and organization of the course are described in section 4.		

COURSE TYPE *Background, General Knowledge, Scientific Area, Skill Development*	SCIENTIFIC AREA
PREREQUISITES:	NO
TEACHING & EXAMINATION LANGUAGE:	GREEK, ENGLISH
COURSE OFFERED TO ERASMUS STUDENTS:	YES
COURSE URL:	https://eclass.duth.gr/courses/XXXXXX/

2. LEARNING OUTCOMES

Learning Outcomes

Please describe the learning outcomes of the course: Knowledge, skills and abilities acquired after the successful completion of the course.

Upon successful completion of the course, students will be able to:

1. Understand the fundamental principles of descriptive statistics and apply appropriate graphical methods and frequency tables for data analysis.
2. Calculate and interpret measures of central tendency (such as mode, median, and mean) as well as measures of variability (such as range, variance, and standard deviation).
3. Apply linear regression techniques (simple and multiple linear regression) and understand concepts of the standard error of the estimate and the correlation coefficient.
4. Conduct and interpret statistical sample comparison tests such as the t-test, χ^2-test, and analysis of variance (ANOVA).
5. Recognize and apply more advanced statistical techniques, including cluster analysis, principal component analysis, and correspondence analysis.
6. Analyze time series and understand the importance of time series analysis in studying data that evolves over time.
7. Use statistical models to interpret and predict data, drawing valid and reliable conclusions from sample data.
8. Apply the above methods to real data analysis through exercises and examples from the humanities and other fields.

General Skills

Name the desirable general skills upon successful completion of the module

Search, analysis and synthesis of data and information,	*Project design and management*
ICT Use	*Equity and Inclusion*
Adaptation to new situations	*Respect for the natural environment*
Decision making	*Sustainability*
Autonomous work	*Demonstration of social, professional and moral responsibility and*
Teamwork	*sensitivity to gender issues*
Working in an international environment	*Critical thinking*

Working in an interdisciplinary environment *Promoting free, creative and inductive reasoning* *Production of new research ideas*
• Search, analysis and synthesis of data and information, using the necessary technologies • Adaptation to new situations • Decision-making • Work in an interdisciplinary environment • Generation of new research ideas • Demonstration of social, professional and ethical responsibility and sensitivity to gender issues • Development of criticism and self-criticism • Promotion of free, creative and inductive thinking • Respect for diversity and multiculturalism

3. COURSE CONTENT

1	Knowledge/understanding.	Introduction. Graphical methods and data types. Frequency tables.
2	Knowledge/understanding.	Probabilities. Central tendency and diversity. Measures of central tendency: mode, median, mean. Measures of variability: Range, percentage points, dispersion, standard deviation, etc.
3	Knowledge/understanding.	Linear regression, Least squares method, Standard errors, variance. Correlation coefficient
4	Knowledge/understanding.	t-test, x2 test and univariate ANOVA
5	Exercises	Exercises
6	Knowledge/understanding.	Simple and multiple regression
7	Knowledge/understanding.	Cluster analysis
8	Exercises	Exercises
9	Knowledge/understanding.	Principal component analysis
10	Knowledge/understanding.	Correspondence analysis
11	Exercises	Exercises
12	Knowledge/understanding.	Time Series Analysis
13	Exercises	Exercises

4. LEARNING & TEACHING METHODS - EVALUATION

<table>
<tr><td>TEACHING METHOD
Face to face, Distance learning, etc.</td><td>• Lectures
• Active learning (hands-on learning) - Experiential learning
• Collaborative learning</td></tr>
<tr><td>USE OF INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT)
Use of ICT in Teaching, in Laboratory Education, in Communication with students</td><td>Use of ICT in teaching and communication with students
• PPT presentations
• Teaching material, announcements and communication through the eClass platform
• Student study of supplementary material related to course content
• Communication with students via email</td></tr>
<tr><td>TEACHING ORGANIZATION
The ways and methods of teaching are described in detail.
Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research & analysis, Tutoring, Internship (Placement), Clinical Exercise, Art Workshop, Interactive learning, Study visits, Study / creation, project, creation, project. Etc.

The supervised and unsupervised workload per activity is indicated here, so that total workload per semester complies to ECTS standards.</td><td><table><tr><th>Activity</th><th>Workload/semester</th></tr><tr><td>Lectures</td><td>26</td></tr><tr><td>Laboratories</td><td>13</td></tr><tr><td>Final Assignment</td><td>37</td></tr><tr><td>Weekly Projects / Exercises</td><td>46</td></tr><tr><td>Independent Study</td><td>55</td></tr><tr><td>Final Examination</td><td>3</td></tr><tr><td>Total</td><td>180</td></tr></table></td></tr>
<tr><td>STUDENT EVALUATION
Description of the evaluation process</td><td>Final exams at the end of the semester.</td></tr>
</table>

Assessment Language, Assessment Methods, Formative or Concluding, Multiple Choice Test, Short Answer Questions, Essay Development Questions, Problem Solving, Written Assignment, Essay / Report, Oral Exam, Presentation in audience, Laboratory Report, Clinical examination of a patient, Artistic interpretation, Other/Others *Please indicate all relevant information about the course assessment and how students are informed*	

5. SUGGESTED BIBLIOGRAPHY

6. Κοινωνική στατιστική

Κωδικός Βιβλίου στον Εύδοξο: 30177

Έκδοση: 1η έκδ./2003

Συγγραφείς: Καλαματιανού Αγλαΐα Γ.

ISBN: 978-960-02-1686-8

Τύπος: Σύγγραμμα

Διαθέτης (Εκδότης): ΕΚΔΟΣΕΙΣ ΠΑΠΑΖΗΣΗ ΑΕΒΕ

Στατιστική: Ανάλυση δεδομένων με χρήση της R

Κωδικός Βιβλίου στον Εύδοξο: 86055461

Έκδοση: 1η έκδ./2019

Συγγραφείς: Witte Robert, Witte John, Ανδρουλάκης Γεώργιος, Κουνετάς Κωνσταντίνος

ISBN: 9789605863098

Τύπος: Σύγγραμμα

Διαθέτης (Εκδότης): ΕΚΔΟΣΕΙΣ ΚΡΙΤΙΚΗ ΑΕ

ANNEX OF THE COURSE OUTLINE

Alternative ways of examining a course in emergency situations

Teacher (full name):	K. ZAFEIRIS
Contact details:	kzafiris@he.duth.gr
Supervisors: (1)	YES
Evaluation methods: (2)	Final exams at the end of the semester
Implementation Instructions: (3)	The written assessments and final examination will be conducted via eClass on a date and time announced in advance, along with the duration and content, providing adequate notice prior to the scheduled exams. The assignment will be submitted through eClass by a specified deadline.

(1) Please write YES or NO

(2) Note down the evaluation methods used by the teacher, e.g.

- *written assignment* or/and exercises
- written or oral examination with distance learning methods, provided that the integrity and reliability of the examination are ensured.

(3) In the **Implementation Instructions** section, the teacher notes down clear instructions to the students:

a) in case of **written assignment and / or exercises:** the deadline (e.g. the last week of the semester), the means of submission, the grading system, the grade percentage of the assignment in the final grade and any other necessary information.
b) in case of **oral examination with distance learning methods:** the instructions for conducting the examination (e.g. in groups of X people), the way of administration of the questions to be answered, the distance learning platforms to be used, the technical means for the implementation of the examination (microphone, camera, word processor, internet connection, communication platform), the hyperlinks for the examination, the duration of the exam, the grading system, the percentage of the oral exam in the final grade, the ways in which the inviolability and reliability of the exam are ensured and any other necessary information.
c) in case of **written examination with distance learning methods**: the way of administration of the questions to be answered, the way of submitting the answers, the duration of the exam, the grading system, the percentage of the written exam of the exam in the final grade, the ways in which the integrity and reliability of the exam are ensured and any other necessary information.
There should be an attached list with the Student Registration Numbers only of students eligible to participate in the examination.