COURSE LAYOUT

1. GENERAL

SCHOOL	APPLIED ECONOMIC AND SOCIAL SHIENCES		
DEPARTMENT	AGRICULTURAL ECONOMICS & RURAL DEVELOPMENT		
STUDY LEVEL	*Undergraduate*		
COURSE CODE	**3703**	**ΕΞΑΜΗΝΟ ΣΠΟΥΔΩΝ**	5th
COURSE TITLE	Advance Statistics		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**ECTS**
Lectures	4	5

COURSE TYPE	Scientific Area
PREREQUISITES	Statistics I and II
LANGUAGE	Greek
IS THE COURSE OFFERED for ERASMUS STUDENTS?	No
COURSE WEB PAGE	https://mediasrv.aua.gr/eclass/courses/AOA230/

2. LEARNING OUTCOMES

Learning Outcomes

This course presents multivariate methods of analysis which is a powerful tool for the students. The course offers both the theoretical background and the practical aspects of the methods that will be taught.

With the successful competition of this course the students will be able:

- To apply the basic methods of multivariate statistical analysis.
- To implement the statistical inference for multivariate data
- Use methods to reduce the dimensions of a problem.

Having acquired these qualifications students will be able to:

- ✓ have proven knowledge and understanding of topics in Applied Statistics, which is based on their general secondary education and, while supported by advanced scientific textbooks, includes views arising from current developments at the forefront of their field of knowledge.
- ✓ use the knowledge and understanding they have acquired in a way that demonstrates a professional approach to their work or profession and have skills that are typically demonstrated by developing and supporting arguments and problem solving within their field of knowledge.
- ✓ have the ability to gather and interpret empirical data to formulate judgments involving reflection on relevant socio-economic, and scientific issues in general.

General Competenses

- Data mining and data analysis using the appropriate technologies.
- Autonomous work
- Decision making
- Critique and self-critique
- Advance of free thinking and reasoning

3. COURSE CONTENT

- Analysis of variances
- Non parametric methods and X^2 test
- Principal components analysis
- Cluster analysis
- Factor analysis

4. TEACHING and LEARNING METHODS - Evaluation

TEACHING METHOD	Face to Face
USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES	• e-class platform • Power-Point slides • Online homework crosswords in html using the platform Open Class
TEACHING ORGANISATION	*Activity* / *Work Load* Lectures: 39 Calculus: 13 Literature review: 40 Homework: 33 *Course total (25 hours of student work load per ECTS)*: ***125***
STUDENTS EVALUATION	1. Written final exams (80%) including: ▪ Multiple choice questions ▪ Exercises 2. Four (4) written essays during the semester (20%)

5. BIBLIOGRAPHY

- Multivariate Statistical Analysis, D. Karlis (2005) eds Stamoulis
- An Introduction to Multivariate Statistical Analysis, Anderson, T. W. (1984), John Wiley & Sons, New York, 2nd edition.