

**DEMOCRITUS UNIVERSITY OF THRACE**  
**DEPARTMENT OF PHYSICAL EDUCATION & SPORT SCIENCE**

*UNDERGRADUATE PROGRAM OF STUDY*

**COURSE TITLE:**

Statistic in Physical Education
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**COURSE CODE:**

N161
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**ECTS CREDITS**

4
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**RESPONSIBLE FOR THE COURSE:**

NAME	Mavromatis Georgios		
POSITION	Professor		
SECTOR	Athletic Training		
OFFICE	B3-9		
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CO-INSTRUCTORS	Gourgoulis Vassilios (Associate Professor)		

**SEMESTER:**

1ST     2ND     3RD     4TH   
5TH     6TH     7TH     8TH

**COURSE TYPE:**

OBLIGATORY   
DIRECTION   
SPECIALIZATION   
PREREQUIZITE FOR SPECIALIZATION   
ELECTIVE (*OPEN*)

**HOURS (per week):**

2
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**DIRECTION**

*(only for 3<sup>rd</sup> & 4<sup>th</sup> year courses)*

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**SPECIALIZATION** *(only for 3<sup>rd</sup> & 4<sup>th</sup> year courses)*

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**LANGUAGE OF TEACHING:**

GREEK

ENGLISH

**AIM OF THE COURSE** (*content and acquired skills*)

The aim of the courses is the introduction in the basic principles of Statistic and the familiarization of the students with basic analysis of applied Statistics in the area of Physical Education

**COURSE CONTENTS** (*outline – titles of lectures*)

1. Population – Sample – Sampling Concepts – Histograms – Matrix
2. Descriptive Statistics – Means – Variance – Frequencies.
3. Normal Distribution
4. Confidence interval
5. Sampling distribution
6. t – distribution
7. Testing hypothesis and making decisions
8. T- test for one sample
9. T – test for two dependent samples procedures
10. T – test for two independent samples
11. Frequencies – chi square analysis
12. Simple Linear Regression– Pearson Correlation
13. Nonparametric statistical methods – Mann – Whitney – Wilcoxon – Spearman coefficient

**TEACHING METHOD** (*lectures – labs – practice etc*)

- Lectures

**ASSESSMENT METHOD(-S)**

- Written exams at the end of semester

**LEARNING OUTCOMES**

Upon the completion of this course the student will be able to:

1. Know and understand the basic principles of Statistic
2. They will be able to recognize the basic statistical models and the appropriate statistical analysis which should be applied.
3. They will be able to perform these statistical analyses.

**LEARNING OUTCOMES - CONTINUED**

<i>Learning Outcomes</i>	<i>Educational Activities</i>	<i>Assessment</i>	<i>Students Work Load ( hours)</i>
1) Students will know and understand the basic principles of Statistic.	Lectures, study at home.	Midterm assessments through practical & oral sessions of cognitive	40

		assessment. Final exam.	
2) Students will be able to recognize the basic statistical models and the appropriate statistical analysis which should be applied.	Practical exercise	Midterm assessments, Final exam	40
3) Students will be able to perform these statistical analyses	Lectures, practical exercise, study at home.	Midterm assessments, Final exam.	40
		<b>TOTAL</b>	<b>120</b>

**OBLIGATORY & SUGGESTED BIBLIOGRAPHY:**

1. Gourgoulis V., Mavromatis G. (2002). *Basic Principles of Applied Statistic in Physical Education*. SALTO Publishers, Thessalonica, Greece.
2. Gialamas V. (2005). *Statistical methods and applications in the Education*. Patakis Publishers, Athens, Greece.