

## **Medical Statistics (61216)**

**Instructors: N.DEMIRIS**

Core Course, 3<sup>rd</sup> semester, 5 ECTS units

Course level: Graduate (MSc)

Language: Greek

### **Course Description**

Medical/Epidemiological studies and a comparative approach to their advantages and disadvantages. Risk measures: suitability by study type and statistical theory with real data applications. Deconfounding, stratification and effect modification. The last part of the course is concerned with Epidemic models, the basic SIR model, its behaviour, the reproduction rate  $R_0$  and disease control.

### **Prerequisites**

Probability, Statistics and computational methods.

### **Target Learning Outcomes**

At the end of the course each student will become familiar with the basic types of medical study and the appropriate method of statistical analysis by study, including their practical application. They will also become aware of the main techniques for correcting for confounders. Finally they will understand the basic principles of disease transmission and the calculations involved in disease control.

### **Recommended Bibliography**

Lecture notes and Rosner's book "Fundamentals of Biostatistics".

### **Teaching and Learning Activities**

Weekly lectures and assignments.

### **Assessment and Grading Methods**

Written exam.