

Medical Statistics (61216)

Instructors: X. PENDELI

Core Course, 3rd 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.