Università
degli Studi
della Campania
Luigi Vanvitelli

SCUOLA DI DOTTORATO IN SCIENZE DELLA VITA

Prof. Katherine Esposito

Course of Medical Statistics with R software
Prof. Simona Signoriello

statistical methods to report biomedical information:

- How and what information to collect
- Statistical variables (qualitative, quantitative)
- Main errors in measurement: the related concepts of precision and accuracy
- Main approaches for data quality control
- Presentation of data: tables and graphs
- Data synthesis: main descriptive summary measures
- Concepts of population, sample and statistical units

main statistical methods to infer conclusions from research findings

- Probability and probability distributions
- The Sampling distributions
- The concepts of parameter and estimate
- The principles of statistical inference
- confidence intervals
- Hypothesis tests
- type I and type II errors
- Criteria for choosing the appropriate statistical test

the philosophy of the r software:

- Basic syntax and data structures
- Import and data management
- Summary statistics and graphs
- Statistical inference with R

The lessons will take place according to the following schedule:

May 15, 18, 22, 29 from 2.30 pm to 4.30pm

June 1, 5, 8 from 2.30 pm to 4.30pm