



UNIVERSITÀ
degli STUDI
di CATANIA

DEPARTMENT OF GENERAL SURGERY AND MEDICAL-
SURGICAL SPECIALTIES
Bachelor's Degree in Cardiocirculatory and Cardiovascular
Perfusion techniques
Academic Year 2017/2018 - 3° Year

STATISTICA MEDICA

MED/01 - 3 CFU - 2° Semester

Teaching Staff

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DETAILED COURSE CONTENT

- .Brief introduction to epistemology of knowledge
2. Scientific use
3. Types of measurement scales: nominal, ordinal, interval and ratio scales
4. Representation of data in graphs and tables
5. Central indicators, variability indicators, asymmetry and kurtosis
6. Probability, sum and product principle
7. Probability application
8. Diagnostic tests: sensitivity, specificity, predictive values
9. Relative risk and odds ratio
10. Probabiloity distributions: binomial, Poisson and normal
11. Standardized Gaussian curve
12. Inference: central limit theorem ,sample distribution of the mean and standard error
13. Confidence interval for the mean and variance
14. Hypothesis test: null and alternative hypotheses
15. Significance tests between two groups: Sudent t test for dependent and independent groups
16. Contingency tables and chi square test
17. Brief description of linear correlation and regression

18. Non parametric-tests

19. Scientific paper

TEXTBOOK INFORMATION

- Colton T (1991) Statistica Medica. Piccin: Padova.
 - Armitage P, Berry G (1996) Statistica Medica - Metodi statistici per la ricerca in medicina. McGraw-Hill Libri Italia srl: Milano
 - M. R. Costanzo, (2018). "Statistica sperimentale per le professioni sanitarie", Createspace by Amazon
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