



**FACULDADE DE MEDICINA
CENTRO DE PÓS-GRADUAÇÃO**

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EST 814 : PRINCIPLES OF BIOSTATISTICS

Workload: 60 h

Credits: 04

Nature: Optional Master and PhD

Professor from EST

Discipline Syllabus: Descriptive statistics. Elements of probability. Statistical inference: confidence interval and hypothesis tests. Classical statistical tests: chi-square, t for one and two samples, simple linear regression and correlation, analysis of variance.

Program:

1. Scales, diagrams, data processing, summary of numerical data.
2. Measures of central tendency, measures of variation.
3. Probability.
4. Population and sample.
5. Standard deviations of means, proportions and differences between means and proportions.
6. Statistical Inference. Confidence interval.
7. Statistical Inference. Concepts.
8. Inference in proportions.
9. Comparison of two means.
10. Comparison of two proportions.
11. Tables 2x2. Chi-square test.

12. Comparisons of various proportions (tables $K \times 2$ and $R \times C$)
13. Simple linear regression.
14. Correlation.
15. Introduction to Experiment Planning and Analysis of Variance

Bibliographic References:

ARMITAGE, P. & BERRY, G. Statistical methods in medical research. 2nd Ed. New York, Oxford, Blackwell Scientific Publications, 1987.

BERQUÓ, E.S.; SOUZA, J.M.P.; GOTLIEB, S.L.D. Biestatística. São Paulo, Editora Pedagógica e Universitária, 1981.

SNEDECOR, G.W. & COCHRAN, W.G. Statistical methods. 7th Ed. Ames, Iowa State University Press, 1980.