BSHND-203 BIOSTATISTICS

Course Objectives:

After studying this course, you should be able to:

i. Present & Interpret data in tabular and graphical forms

ii. Apply the basic rules of probability

iii. Summarize data using the appropriate measures of central tendency and variation

iv. Apply the principles of normal distribution on a population and on sample means

v. Determine the required sample size for a given level of significance

vi. Determine & Interpret the confidence interval for sample means and proportions

vii. Apply the appropriate test of significance to test the hypothesis on a given data set

Course Contents:

i. Introduction to Biostatistics and its Application in Research

ii. Data: its Types, Sources and uses

iii. Organizing and Displaying Data

iv. Measures of Central Tendency and Measures of Dispersion

v. Introduction to Statistical Software

vi. Probability

vii. Normal Distribution

viii. Sampling Techniques

ix. Confidence Intervals for Mean

x. Confidence Intervals for Proportion

xi. Hypothesis Testing

xii. Introduction to Tests of Significance

xiii. Correlation and Regression

Recommended Books:

1. Bio Statistics Bush, Heather M 2012.

2. Fundamentals of Biostatistics 7th edition by Bernard Rosner 2011.

3. Bio Statistics Daniel, Wayne W 2009.

4. Bio Statistics Rao, K Visweswara (ed) 2009.

5. Pagano, Gauvreau Principles of Biostatistics 2nd Thomson

6. Rosner Fundamentals of Biostatistics 6th Thomson

7. Daniel WW Biostatistics: A Foundation for analysis in Health Sciences 5th (1990) Joh Wiley and Sons