**Research Methodology & Biostatistics BVOCOP-206**

UNIT I

Research Methodology

1. Introduction to research methods

2. Identifying research problem

3. Ethical issues in research

4. Research design

5. Types of Data

6. Research tools and Data collection methods

7. Sampling methods

8. Developing a research proposal

UNIT II

Biostatistics

1. Basics of Biostatistics

1.1 Introduction of Biostatistics

1.2 Measures of Morality

1.3 Sampling

1.4 Statistical significance

1.5 Correlation

1.6 Sample size determination.

1.7 Statistics –Collection of Data - presentation including classification and diagrammatic representation –frequency distribution. Measures of central tendency; measures of dispersion.

1.8 Theoretical distributions.

1.8.1 Binomial

1.8.2 Normal

1.8.3 Sampling –necessity of methods and techniques.

1.8.4 Chi. Square test (2 x 2)

2. Hospital Statistics

3. Use of computerized software for statistics

TEXT BOOKS:

1. Mausner & Bahn: Epidemiology-An Introductory text, 2nd Ed., W. B. Saunders Co.

2. Richard F. Morton & J. Richard Hebd: A study guide to Epidemiology and Biostatistics, 2nd Ed., University Park Press, Baltimore.

3. Sylvia W Smoller, J Smoller, Biostatistics & Epidemiology A Primer for health and Biomedical professionals, 4th edition, Springs, 2015