

**Biostatistics and its Application in Biology**  
**FYUGP 3<sup>rd</sup> Semester**  
**Skill Enhancement Course**  
**Paper Code: SEC0307203**

**Course objective:**

- To understand the application of Biostatistics in Biology
- To have concepts on Population and sampling
- Generate idea on Central Tendency
- To organise and display data
- Use of Exel and Libreoffice in Biostatistics.

**Learning Outcome:**

Upon completion of the course the students should be able to understand the basic concepts of Statistics and its application in Biology.

**Theory (Credit 2)**

1. Introduction to Biostatistics: Aim and scope of biostatistics, uses of statistics in Biology (5 Lectures)
2. Basic concepts of central tendency: Calculation of mean, median and mode of group and un-grouped data (6 Lectures)
3. Basic concept of standard deviation, standard error and their application (5 Lectures)
4. Graphical representation of data- Line diagram, Bar diagram, Pie diagram (6 Lectures)
5. Use of computers in Biostatistics: Data entry and arrangement in excel/ libre office (8 Lectures)

**Practical (Credit 1)**

1. Calculate mean, median and mode from the given sample using ms excel/libreoffice
2. Calculate standard deviation, standard error using ms excel/libreoffice
3. Graphical representations of statistical data using computers.

**Suggested Books**

1. Statistics for terrified biologists by H van Emden. 2<sup>nd</sup> Edition.
2. Biostatistics by P. Ramakrishnan, Saras Publication
3. Biostatistical Analysis by Jerrold H Zar, IV Edition.