

**GUJARAT UNIVERSITY**  
**Syllabus for Second Year B.Sc.: Semester – III**  
**Effective from June 2024**  
**SEC-236: 2 Credits**

**Biostatistics**

**Unit 1: Analysis of Biochemical data**

- Introduction and scope in biostatistics
- Kinds of data and variables based on nature (numerical discrete continuous, categorical ordinal and nominal)
- Based on source primary and secondary data
- Sampling Methods: Random and Non-Random Methods
- Representation of data: Textual, Tabular, and Graphical Methods
- Tools and software used in Biostatistics.
- Applications of Biostatistics

**Unit 2: Central Tendency and Dispersion**

- Measurement of central tendency: Mean, Mode, Median, grouped data, ungrouped data; merits and demerits.
- Measures of dispersion: Range, Variance and Standard Deviation of grouped and ungrouped data; merits and demerits

**References Books**

1. Fundamentals of Biostatistics, 2006 – Bernard A Rosner
2. Fundamentals of Biostatistics, 5th edition, Khan and Khanum
3. Methods in Biostatistics, 2010, B.K. Mahajan
4. Fundamentals of Biostatistics, 2009 , V.B. Rastogi

5. Research Methodology: Methods and Techniques, 2004, C. R. Kothari
6. Bioinformatics databases, tools and algorithms, O. Bosu & S. K. Thukral
7. Bioinformatics: Sequence and Genome Analysis by Mount D., Cold Spring Harbor  
Laboratory Press, New York. 2004
8. Introduction to bioinformatics by Teresa K. Attwood, David J. Parry-Smith. Pearson  
Education. 1999 Old editions