

## BSP457 BIOSTATISTICS AND BIOINFORMATICS LAB

### Course Outcomes:

*After successful completion of the course, students will be able to :*

- CO 1. Perform suitable statistical tests for evaluation of data
- CO 2. Make suitable graphical representations of data
- CO 3. Perform statistical tests - t test, F-test, ANOVA
- CO 4. Develop the skill to use search engines, internet tools and databases.
- CO 5. Gain the practical knowledge of restriction mapping and microarray techniques.

### Biostatistics

1. Measurement of Central tendencies, mean, median, mode
2. Measures of dispersion range SD, CV & SE
3. Scatter plot, Simple Correlation & Regression, Multiple Correlations
4. Construction of frequency table
5. Theoretical distribution, Binomial, Poisson & normal
6. Statistical inference, normal, t test, chi-square & F test
7. Analysis of Variance

### Bioinformatics

1. Introduction to bioinformatics
2. Basic feature of computers; flow charts and problems.
3. Search engines and internet tools.
4. Biological databases
5. Use of databases (e.g. BLAST, FASTA)
6. Restriction mapping
7. Micro array techniques
8. Search engines
9. Web lab viewer and Ras mols

