

**Z-3505 & Z-3506**

**GENETICS AND BIostatISTICS-I**

**Cr. 4(3+1)**

**Theory**

Genetics, History of Genetics,  
Classical Genetics –Multiple Alleles, Genetics of Blood Groups, Chromosomal Basis of  
Inheritance, Interaction of Genes, Chromosomal changes (Euploidy, Aneuploidy, Structural

changes), Sex-Determination and Sex-Linkage, Linkage, Recombination and Chromosome mapping in Eukaryotes.

### **Biostatistics**

Introduction and scope, use of statistics in biology. Population and sample. Stages of research, types of data and methods of data collection. Data arrangement and presentation, formation of tables and charts. Measures of central tendency (computation of from grouped and ungrouped data). Measures of dispersion, computation of variance, standard deviation, standard error and their coefficients

### **Practicals**

Problems related to concepts of Classical and Population genetics, Pedigree Analysis

### **Books Recommended:**

1. PRINCIPALS OF GENETICS Gardner E.J., Simmons M.J. and Snistad A.P. (Latest available Addition)
2. Text Book for Biostatistics: ELEMENTRY STATISTICS A STEP BY STEP APPROACH, By Bluman.A. G Latest available Addition
3. Reference Books. Concepts of Genetics By Klug, W.S and Cummings M.R.