Study of immune system in rats
Blood film preparation and study of immune cells
Histology of organs of immune system
Study of insect hemocytes
Production of antiserum
Isolation of lymphocytes
Antigen-antigen reactions (*in vitro*)
Phagocytosis (*in vitro*)
Immunodot technique
Immunodiffusion technique
Immunological diagnosis of pregnancy and infection
Demonstration of ELISA technique

BTP 509 RESEARCH METHODOLOGY AND BIOINFORMATICS

Course outcomes:

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

CO 1. Use biological databases
CO 2. Retrieve sequences for analysis
CO 3. Carry out analysis including phylogenetic tree construction and molecular modelling
CO 4. Get hands-on training in research methodology and biostatistics

Biological databases - BLAST, FASTA
Restriction mapping
Mean SEM, Histogram
Student's t-test
ANOVA

BTP 510 MEDICAL BIOTECHNOLOGY

Course outcomes:

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

CO 1. Perform various medical tests
CO 2. Develop skills in diagnostic testing
CO 3. Appropriate techniques required in clinical laboratories for diagnosis
CO 4. Diagnose genetic disorders based on various abnormalities

Hemagglutination test
Antibiotic sensitivity
Karyotype preparation
Chromosomal staining techniques
Avidin-biotin technique in immunohistochemical staining
Immunoblot