

## BSP508 APPLIED ECOLOGY LAB

### Course Outcomes:

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

- CO 1. Enhance the theoretical knowledge of applied ecology with lab experiments and field visits.
- CO 2. Understand plant-animal interactions and prey-predator relationship.
- CO 3. Unravel medicinal properties of plants and significance of conservation
- CO 4. Develop skills of remote sensing.
- CO 5. Identify the freshwater and marine fishery resources.
- CO 6. Estimate growth parameters and determine the probability of death.

- 1. Biodiversity
- 2. Terrestrial biodiversity
- 3. Aquatic biodiversity
- 4. Plant-animal interactions
- 5. Endangered medicinal plants.
- 6. Landscapes analysis through remote sensing data.
- 7. Freshwater fishery resources
- 8. Marine fishery resources
- 9. Estimation of growth parameters
- 10. Life-tables
- 11. Prey-predator relationships

## BSP509 IMMUNOLOGY LAB

### Course Outcomes:

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

- CO 1. Develop skills in immunology lab experiments.
- CO 2. Isolate lymphocytes and identify different blood cells
- CO 3. Understand hemolymph cells in insects
- CO 4. Perform immunoassays using various immunodiffusion methods
- CO 5. Detect and quantify antigens and allergens using established methods

- 1. Study of immune system in rats
- 2. Blood film preparation and study of immune cells
- 3. Isolation of lymphocytes
- 4. Study of insect hemocytes
- 5. Ouchterlony double diffusion assay
- 6. Radial Immunodiffusion technique
- 7. Immunological diagnosis of pregnancy and infection
- 8. DOT- ELISA technique
- 9. Rocket immunoelectrophoresis method
- 10. Detection of allergens: Pollen Count by sticky slide method

## BSP 510 ECOTOXICOLOGY LAB

### Course Outcomes:

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

- CO 1. Learn and practice safety measures to be taken in laboratories.
- CO 2. Determine acute and chronic toxicities through bioassays.
- CO 3. Estimate oil and grease from water and differentiate between clean and polluted water samples