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

CO 1. Perform agarose gel electrophoresis and realize its applications in biological research.
CO 2. Isolate plasmid DNA, genomic DNA and total RNA from bacteria and other sourcesand determine their purity
CO 3. Execute restriction digestion and mapping of DNA.CO 4. Design primers and run the PCR reaction.
CO 5. Become skilled in gel documentation instrument (Geldoc) and image development.

1. Agarose gel electrophoresis
2. Isolation of plasmid DNA from bacteria and its identification by electrophoresis
3. Isolation of genomic DNA from various sources and its identification
4. Restriction digestion and mapping of DNA
5. Isolation of total RNA from various sources and gel electrophoresis
6. Design of primers and PCR
7. Determination of DNA/RNA purity by UV-Visible spectrophotometry
8. Demonstration of gel documentation and imaging

BSP457/A PLANT AND ANIMAL SYSTEMATICS LAB

After undergoing the course, students will be able to:

CO 1: Classify angiosperms from domain to species level using the keys

CO 2: Gain the skill of herbarium preparation.

CO 3: Classify representative animals

CO 4: How to preserve the animal species

CO 5: Gain knowledge of molecular taxonomy with reference to DNA bar-coding.

1. Study of vegetative and floral characters of selected families of Dicotyledonous and of Monocotyledons
2. Plant classification from domain to species level
3. Demonstration of virtual herbarium
4. Field visit, plant collection, and herbarium preparation
5. Mounting of a properly dried and pressed specimen of any wild plant with herbarium labelling
6. Interaction and co-evolution of flowering plants and animals
7. Study the evolution of a few plants