

Course Code	Course Name	Credits
26BT154	MOLECULAR BIOLOGY LAB	02

Objective

The objective of this laboratory course is to enable students to recall essential molecular biology techniques. To familiarize with the steps involved in DNA and RNA isolation and separation. Introduce the students to advanced level instruments. Learn to design experiments, troubleshoot protocols, implement controls, and analyze results. Understand and apply the chromatographic techniques for separation of biomolecules.

1. Isolation of DNA from plant leaves by CTAB
2. Separation of DNA by Agarose Gel Electrophoresis (AEG)
3. Isolation of RNA by Orcinol method
4. Isolation of plasmid DNA from bacteria
5. Isolation of genomic DNA from E.Coli by Phenol/Chloroform extraction
6. Isolation of genomic DNA from human cheek cells
7. Isolation of genomic DNA from Goat liver – Phenol extraction
8. Separation of a mixture of amino acid by Thin layer chromatography (TLC)
9. Separation of protein by SDS PAGE.
10. Paper chromatography.

Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements.

