

Course Code	Course Name	Credits
2 26BT151	CELL BIOLOGY LAB	02

Objective

The goal of this course is for students to understand & develop skill and hands on training in basics of cell biology, to understand the nature of the cells, present in the biological sample through microscope. To understand the preparation of biological material for staining, staining procedure and visualization of stained slide. To identify the different stages of cell division in a biological material. Gain knowledge on structural composition of prokaryotes and eukaryotes.

1. Study and maintenance of simple and compound microscope
2. Cell counting- Haemocytometer.
3. Study of Prokaryotic and Eukaryotic cell structure
4. Identification of different stages of mitosis in onion root tip.
5. Visualization of animal and plant cell by methylene blue staining
6. Visualization of nuclear fraction by acetocarmine stain.
7. Study of Plasmolysis and de-plasmolysis.
8. Preparation of nuclear, mitochondrial and cytoplasmic cell fractions.
9. Determination of enzyme activity in organelles using sprout

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

