

Course Code	Course Name	Credits
26BT152	GENETICS LAB	02

Objective

The objective of this laboratory course is to enable students to Gain conceptual knowledge on different stages of mitosis/meiosis. To give hands on experience in identification of important biological constituents of cell. To recall the key principles and terminology of genetics, such as Mendelian inheritance, genetic mutations, and inheritance patterns. To explain the basic mechanisms of inheritance, gene expression, and genetic variation. Understand and apply law of genetics to solve experimental problems.

1. Mendel's law of genetics - . Mono and Dihybrid crosses.
2. Rearing morphology of Drosophila (mutant eye identification)
3. Study of Genetic model organisms (Arabidopsis thaliana and Caenorhabditiselegans)
4. Differential staining of blood.
5. Identification of Barr body (Buccal epithelium smear)
6. Preparation of polytene chromosomes (Chironomous larvae salivary gland) - squash preparation.
7. Preparation of meiosis cell stages from Grass hopper testis cells.
8. Preparation of mitotic cells stages from onion root tip squash

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

