



## **Genetics**

The Genetics course aims to enable students to understand the basic laws of heredity, the mode of expression of hereditary traits and the interaction of heredity and environment. The process and significance of meiosis and mitosis in the transmission of hereditary characteristics. Laws of inheritance. Monohybridization, dihybridization. Genotype and environment. Phenotype as a result of interaction. Multiple alleles, mutations, epistasis. Sex chromosomes and sex-linked inheritance. The chemical nature of the hereditary substance. DNA, RNA. Transcription, Genetic code, Translation. Technical and biological tools in genetic cloning and modification of organisms.