

Biotechnology

B.Sc. Biotechnology

Students will be able to

- Demonstrate a base of knowledge on the fundamentals of biotechnology and technical concepts in the field of biotechnology.
- Recognize the importance of bioethics, IPR, entrepreneurship, communication and managerial skills as instrumental to future biotechnologist.
- Discuss the domains of biotechnology and their applications in industrial research, scientifically and ethically.
- Employ basic laboratory skills for research in biotechnology and interdisciplinary aspects of biotechnology using scientific methods to explore natural phenomena.
- Combine the principles of biotechnology and its interdisciplinary concepts for finding solutions to contemporary biological questions.

M.Sc. Biotechnology

Students will be able to

- Discuss the principles and the applications of molecular biology, methods with an emphasis on the application of recombinant DNA technology to animals, plants and microbes.
- Explain the concepts and applications of monoclonal antibody technology, use of mammalian cells for the production of pharmaceutical products.
- Relate the applications of biotechnology and advances in the different areas like medical, environmental, agricultural, veterinary and forensic sciences.
- Apply technical skills necessary to support biotechnology research study.
- Extrapolate the scope for career in biosciences by getting through competitive exams or through research undertakings.

M.Phil. Biotechnology

Students will be able to

- Demonstrate critical understanding of advanced level of updated knowledge in the field of biotechnology.
- Apply the knowledge of teaching learning skills in personal and professional life.
- Integrate life-long learning skills and academic advancements.
- Appraise biotechnological research using theoretical knowledge and practical application of laboratory equipments critically and systematically.
- Prepare research project reports for publication in journals and present them orally and in written form.

Post Graduate Diploma in Fermentation Technology

Students will be able to

- Describe the basic concepts in biomolecules and microbial biochemistry.
- Explain the principles of fermentation technology, use of biocatalysts and biotransformation involved in the bioprocess.
- Illustrate the process of industrial fermentation, bio process of animal and plant cell and the role of enzymes in fermentation.
- Summarize the steps in downstream processing.
- Evaluate the cost effective fermentation process and bioprocess in compliance with market demand.

Post Graduate Diploma in Bioinformatics

Students will be able to

- Explain the fundamental principles of Bioinformatics and statistical applications in bio informatics.
- Outline the process of generation, manipulation and representation of molecules for drug modeling.
- Describe the basic structure of biological molecules, process of acquiring the structures and the interaction between the molecules.
- Develop and apply basic computer programming to build biological algorithms and models to study their relationships.
- Deduce the interrelationship between genomics and Proteomics, techniques involved in analyzing proteomics and its applications.