

## Department of Microbiology

On completion of M.Sc. (Microbiology), students are able to:

- Instill the intellectual skills to analyze the molecules using advance biophysical techniques such as HPLC, GC, AAS, and PCR etc.
- Perform the quantitative/ qualitative analysis of Bio-molecules and understand various biochemical pathways
- Acquire knowledge and understanding the concepts of Microbial genetics, Molecular biology, Immunology and Enzymology.
- Explore the scientific literature effectively and use computational tools such as biostatistical and bioinformatics
- Implement the knowledge in industry with regard to scale up, production, scale down and quality control of the various microbial products
- Conduct the basic research related to industry-environmental issues and use of agriculture for sustainable products

## Department of Organic Chemistry

- To equip students with the knowledge and generic skills for employment or further training in R&D.
- To stimulate intellectual development, develop powers of critical analysis and ability to solve problems
- Understand the synthesis by various mechanism and characterization of organic compounds and natural compounds.
- To enable students to develop independent learning skills as well as the experience of working as part of a team.
- Understand the Stereochemistry of the natural product and organic compounds.

- Perform the organic preparation of one, two and three stage preparation by green and chemical approach.
- To introduce student to chemical research methodology through carrying out a research project.
- Understanding application of organic compounds like antibacterial, anticancer and antifungal etc. in medical and pharmaceutical field.
- Understanding application of IR, NMR, GCMS etc for characterization of organic compounds
- To understand professional responsibility and ethics in Chemistry

### Department of Biotechnology

On completion of M.Sc. (Statistics), students are able to:

- Get empowered by Biotechnological, microbiological and biochemical skills to serve as biotechnologist with knowledge of practical and theoretical skills.
- Work as qualitative manager, production manager, researcher for scientific, practical purposed in pharmacy, food, agriculture and in sterile plants of various industries and health sectors.
- Become eligible to take post doctoral education in the field of life sciences inclining biotechnology, biochemistry, genetic engineering, forensic science, molecular biology and agriculture biotechnology
- Serve as administrators, researchers, investigators, assistant, and data scientist, data analyst in pharmacy, food, agriculture and in sterile plants of various industries.
- Conduct the basic research related to industry-environmental issues and use of agriculture for sustainable products

## Department of Statistics

On completion of M.Sc. (Statistics), students are able to:

- Show the knowledge of various subjects in Statistics in different fields like Production Industries, Insurance Industries, Clinical Trials, etc.
- Acquire knowledge and understanding the concepts of Statistical process control, sampling techniques, etc.
- Analyze the concepts of multivariate, regression and time series.
- Implement the knowledge in industry with applied subjects in statistics
- Develop the basic research related to various subject topics in statistics.
- Improve the linkage with industries.
- Acquire professional careers in data collection, management and analysis in the public or private sector.

## Department of Mathematics

On completion of M.Sc. (Mathematics) students are able to:

- Show the knowledge of various subjects in Mathematics in different fields.
- Acquire knowledge and understanding the concepts of convergence, divergence etc.
- Analyze the concepts of Topological spaces, Dynamics, Integral equations etc.
- Implement the knowledge in industry with applied subjects in Mathematics.
- Develop the basic research related to various subject topics in Mathematics.
- Improve the linkage with industries.

- Increasing conservation, creation and advancement of knowledge.
- Creating technological thought in a wide range of spheres by providing value-based and high quality education.
- Generating research and innovations and enabling empowerment through social and regional inclusion.