## Name of Programme: Bachelor of Research in Microbiology

## Year of Programme: M. Sc. Microbiology First Year

## **Programme Objective:**

The programme has been designed in such a way so that the students will gain theoretical as well as practical knowledge on various domains of Microbiology and will be able to communicate and collaborate with other disciplines effectively.

Programme Outcomes (POs): After completion of programme students will be able to:

**PO1:** Understand the concept and fundamentals of various aspects of Microbiology subject as well as its implementation and also its interrelation with other subjects.

**PO2:** Apply the knowledge and technical skills for the benefit of society.

**PO3:** Develop ability to plan a scientific research and also interpretation of outcomes. **PO4:** Develop ability to be a member of an organization / institution working in subject/field based as well as multidisciplinary environments.

**PO5:** Recognize the need and implementation of scientific approach for the betterment of humans, environment and entire nature.

**PO6:** The programme will help to develop a range of generic skills that are relevant in enhancing entrepreneurship skills among students and also become job providers.

## **Programme Specific Outcomes (PSOs):**

**PSO1:** The student will be able to gain theoretical and practical/laboratory knowledge of various aspects of Microbiology including Fundamentals of Microbiology, Microbial Biochemistry, Bioinstrumentation & Analytical techniques, Microbial Physiology and Metabolism, Biostatistics and Bioinformatics, Environmental Microbiology, Agro technology & Food Nutrition, Microbial Genetics & Molecular Biology, Cell Biology.

**PSO2:** Student will be acquainted with the historical account and development of microbiology as a scientific discipline.

**PSO3:** The student will acquire in depth knowledge on diversity, distribution, cell structure and economic importance of bacteria, Algae, Fungi, Protozoa and Virus.

**PSO4:** Students will be well versed with instruments about their principle and working procedure of various instruments.

**PSO5:** Students will acquire information about nutritional requirements of bacterial growth and the parameters affect its growth.