

## **PROGRAMME OUTCOMES**

- 1 Students can pursue higher studies (M.Phil., Ph.D.) after clearing national level examinations such as, CSIR-NET, ARS-NET, GATE, ICMR and gain suitable positions in research institutions and universities.
- 2 Students can choose entrepreneurship ventures such as consultancy and training centers related to their field of expertise.
- 3 Students can opt for a promising career in Pharmaceutical and Biotech industries in R&D, Product Management, Quality Control and Quality Assurance departments.

## **PROGRAMME SPECIFIC OUTCOMES OF MICROBIOLOGY**

1. Students will gain knowledge of use of microbes in applied fields and solve problems related to the fields of Microbiology.
2. The objectives of masters programme in Microbiology is to equip the students to apply knowledge of molecular mechanism of cellular processes in microbes to applied aspects.
3. The laboratory training in addition to theory is included and prepare students for careers in applied research where microbes are increasingly applied.
4. Basic and current updates in the area of fermentation technology, microbiology, Agriculture and Environmental Microbiology are provided to students and they are initiated and motivated to pursue research in these applied areas.
6. The masters in Microbiology programme address the increasing need for skilled scientific manpower with an understanding of research and contribute to application, advancement and impartment of knowledge in the field of Microbiology

## **COURSE OUTCOMES**

### **Biochemistry**

To acquire basic concepts of biological macromolecules , their role in cells and ultimately in an organisms.

### **Analytical Techniques**

To acquire knowledge of tools and technique used for detection and measurement of biological molecules and their functions.

### **Cell Biology**

This course gives detailed understanding of the generation ,survival and death of a cell.

### **Basic Genetics**

This course imparts knowledge in inheritance, heredity, genetics defects and abnormalities.

### **Biostatistics, Bioinformatics, Computer**

This course equip students on analysis of scientific data and concept of significance , use of computers in storing and analyzing data and use various biological databases.

### **Basic Microbiology**

This course provides introduction to the world of bacteria ,virus and fungi.

### **Immunology**

This course provides insight into defence system of human body and natural mechanism of protection from disease.

### **Molecular Biology & Genetic Engineering**

This course provide detailed understanding of DNA replication, transcription , translation and manipulation and its use in modern biology.

### **Environmental Biology**

This course imparts knowledge on environmental challenges faced by mankind and their solution.

**Bioprocess technology and down stream processing**

This course provide industrial application of Microbiology and give training on taking lab scale process to industry scale.

**Virology**

This course provides structure and properties of viruses and diseases caused by them.

**Medical Microbiology**

This course provides role of microbes in disease processess and their control and Prevention

**Food Microbiology**

This course provide use of microbes in fermented foods and long terms preservation of food.