Programme Name: Certificate in Microbiology
Year of programme: B. Sc. (H) 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. This programme includes the theoretical as well as laboratory/ practical details of General Microbiology, Bioinstrumentation, Microbial Genetics and Microbial Biochemistry.

Programme Outcome (POs):

PO1: After the completion of programme the students will be able to gain the theoretical as well as practical knowledge on various aspects of Microbiology and related field.
PO2: The practical /lab courses will be helpful to expertise the students with the laboratory skills in basic microbiology and course related topics.
PO3: The major focus of the programme is to develop the ability to design and conduct experiments, as well as to analyze and interpret scientific data.
PO4: The programme will provide the knowledge and laboratory skills to the students to undertake further studies in the field of microbiology and related areas or in multidisciplinary areas such as biotechnology, biochemistry and molecular biology.
PO5: The programme will help to develop a range of generic skills that are relevant in enhancing entrepreneurship skills among students.

Programme Specific Outcome (PSOs): After the completion of programme the students will be able to

PSO1: Gain knowledge on structure of bacteria and microbial growth kinetics and learn about the different bacteriological media, bacterial cultivation methods and various sterilization methods.
PSO2: Acquire information about microbial diversity and different system of classification and knowledge on bacterial ultra structure and microbial growth kinetics.
PSO3: Get knowledge about principle and procedure of laboratory instruments such as centrifuge, pH meter, colorimeter, Chromatography, SDS-PAGE, Microscope, spectrophotometer.
PO4: Explain the microbial genetic material, recombination methods and also explains the meaning, types and applications of mutation.
PO5: Understand the basics of principles of aqueous environment in biological systems, and structure as well as structure and function of different biomolecules.
PO6: Develop laboratory skills in techniques related to course curriculum and also expertise basic instruments related to microbiology.