

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

- PEO 1** : To impart basic knowledge and skills to integrate principles of microbiology to achieve academic excellence
- PEO 2** : To train the students for industrial need and to pursue higher education.
- PEO 3** : To inculcate entrepreneurship among the students so as to start their own ventures in the field of microbiology.
- PEO 4** : Graduates will make valid judgment, synthesize information from a range of sources and communicate them in sound ways in order to find an economically viable solution.
- PEO 5** : To develop overall personality and character with team spirit, professionalism, integrity and moral values to serve for the humanity.
- PEO 6** : To make student familiar with the use and application of modern IT tools in relation to microbiology.
- PEO 7** : To make students able to interpret and comprehend research problems, propose solutions and prioritize work.
- PEO 8** : To make students able to attain leadership skills and perform responsibly as an individual, and as a member in diverse teams in multidisciplinary settings.
- PEO 9** : To make students aware about the ethical issues associated with current microbiological research by practicing ethical behavior.
- PEO 10** : The student shall be able to apply useful microbes and microbiology to fulfil societal needs from time to time.

PROGRAMME OUTCOMES (POs)

- PO 1** : Students will be able to acquire, articulate, retain and apply specialized language and knowledge relevant to microbiology.
- PO 2** : Students will be able to acquire knowledge of beneficial and detrimental microflora and their application in the various aspects of microbiology.
- PO 3** : Students will acquire and demonstrate competency in laboratory safety and in routine and specialized microbiological laboratory skills applicable to microbiological research or clinical methods, including accurately reporting observations and analysis.
- PO 4** : Students will be able to apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional practice.
- PO 5** : Students will be able to understand the impact of societal activities on environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO 6** : Students will be able to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO 7** : Students will be able to communicate effectively and write effective reports and design documentation, make effective presentations and give and receive clear instructions related to microbiological research and developmental.
- PO 8** : Student will be able to arrange and review microbiological data, investigate implications systematically and propose solutions.
- PO 9** : Student shall be able to apply ethical principles and commit to professional ethics and responsibilities and norms of the microbiological practices.
- PO 10** : The student shall be able to value the importance of life-long learning.
- PO 11** : The student shall be able to apply microbiological learning to societal issues.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

(A)

- PSO 1 Higher Education-** Graduates in microbiology will be eligible for pursuing higher education, M.Sc. programmes in the different field of life sciences.
- PSO 2 Problem Solving Skills** – Graduate will be able to develop efficient and effective systems using modern microbiological techniques in different fields such as health, agriculture, environment etc.
- PSO 3 Research Skills** – Graduate will be able to apply latest microbiological techniques and principles for identifying specific microorganism and their applications to be applied as future aspects.
- PSO 4 Successful Career** – Graduates will exhibit contemporary knowledge in microbiology and will be eligible for doing jobs in pharmaceutical and microbiological Industries.
- PSO 5 The Microbiologist and Society**– Graduate will be able to apply the acquired knowledge from the program for advancement of mankind and sustainable agriculture.

(B) Suggested carrier opportunities:

1. Quality Control Officer
2. Production In-Charge
3. Quality Assurance Officer
4. Executive Officer
5. Microbiology Expert
6. Business Development Executive
7. Laboratory Instructor
8. Research Assistant
9. Medical Coder
10. Government officer in various field

(C) Suggested domains (trainings/ workshops etc.) from where student may acquire additional hands-on expertise:

1. Hands-on training on Basic computer and internet awareness
2. Workshop on entrepreneurship development using microbes
3. Hands-on training on bioinstrumentation
4. Hands-on training on bio-fertilizer formulation for sustainable agriculture
5. Hand- on training on fermentation technology
6. Hand- on training on microbial analysis of water
7. Hand- on training on processed foods microbiological testing
8. Hands-on training on Mushroom cultivation
9. Hands-on training on Medical coding
10. Minor in-house projects