

PG AND RESEARCH DEPARTMENT OF MICROBIOLOGY

PROGRAMME OUTCOME FOR M.Sc., DEGREE

PO No.	Programme Outcomes <i>(Upon completion of the M.Sc. Degree Programme, the postgraduate will be able to)</i>
PO-1	Disciplinary Knowledge: demonstrate in-depth knowledge and understanding of theories, policies, and practices in one or more disciplines that form a part of a Post Graduate program of study in Master of Science.
PO-2	Critical Thinking and Problem Solving: apply analytic thought to a body of knowledge, analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence, identify relevant assumptions or implications, formulate coherent arguments, critically evaluate practices, policies and theories by following scientific approach to knowledge development: solve problems and extrapolate the same to real life situation
PO-3	Information/digital literacy and Communication Skills : use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources, and use appropriate software for analysis of data: communicate thoughts and ideas analytically and effectively in writing and orally using appropriate media, and present complex information in a clear and concise manner to different groups.
PO-4	Research-related skills: conduct independent inquiry in a chosen scientific discipline, demonstrate sense of inquiry and capability for asking relevant/appropriate questions, problematising, synthesising and articulating; recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; plan, execute and report the results of an experiment or investigation.
PO-5	Scientific reasoning and Reflective Thinking: analyse, interpret and draw conclusions from quantitative/qualitative data and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective; critically and sensibly evaluate life experiences, with self awareness and reflexivity of both self and society.
PO-6	Multidisciplinary Approach, Innovation and Entrepreneurship: propose novel ideas of interdisciplinary approach in providing better solutions and new ideas for the sustainable developments; identify opportunities, entrepreneurship vision and use of innovative ideas to create value and wealth for the betterment of the individual and society.
PO-7	Moral and ethical awareness/reasoning: embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work, demonstrate the ability to identify ethical issues related to one's work, avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopt objective, unbiased and truthful actions in all aspects of work.

PO-8	Self directed Learning: work independently, identify appropriate resources required for a project, and manage a project till completion.
PO-9	Lifelong Learning: engage in continuous learning for professional growth and development, acquire knowledge and skills, adapt to changing environment and adapt to changing trades and demands of work place through knowledge/skill development/reskilling.
PO-10	Multicultural Competence, Social Interaction and Effective Citizenship: understand the values and beliefs of multiple cultures, global perspectives, engage and interact respectfully with diverse groups and elicit views of others, mediate disagreements and help reach conclusions in group settings, and demonstrate empathetic social concern and equity centred national development.

PG AND RESEARCH DEPARTMENT OF MICROBIOLOGY

PROGRAMME SPECIFIC OUTCOME (PSO)

PSO No.	Program Outcomes (M.Sc., Microbiology)
PSO1	Construct safety measures in microbiology using appropriate protective, biosafety and emergency procedures
PSO2	Design and execute an experiment related to General microbiology, molecular biology, recombinant technology and equipped to take up a suitable position in academia or industry, and to pursue a carrier in research
PSO3	Apply skill set related to quality assurance and testing of industrially important microbial products in accordance with internationally accepted standards
PSO4	Determine the role of microorganisms in biogeochemical processes like leaching of metals and bioremediation methods
PSO5	Explore the concepts of microbial interactions in waste management for eco friendly environment
PO6	Understanding of ethical issues in research and career options
PSO7	Evaluate the microbial diversity and its potential for the welfare of human being in different problem such as disease outbreak