M. Sc Physics Programmes

PROGRAM OUTCOMES (POs):

By the end of the program, the students will be able to

PO1 Domain knowledge: Demonstrate knowledge of basic concepts, principles and applications of the specific science discipline.

PO2 Resource Utilisation. Cultivate the skills to acquire and use appropriate learning resources including library, e-learning resources, ICT tools to enhance knowledge-base and stay abreast of recent developments.

PO3 Analytical and Technical Skills: Ability to handle/use appropriate tools/techniques/equipment with an understanding of the standard operating procedures, safety aspects/limitations.

PO4 Critical thinking and Problem solving: Identify and critically analyse pertinent problems in the relevant discipline using appropriate tools and techniques as well as approaches to arrive at viable conclusions/solutions.

PO5 Project Management: Demonstrate knowledge and scientific understanding to identify research problems, design experiments, use appropriate methodologies, analyse and interpret data and provide solutions. Exhibit organisational skills and the ability to manage time and resources.

PO6 Individual and team work: Exhibit the potential to effectively accomplish tasks independently and as a member or leader in diverse teams, and in multidisciplinary settings.

PO7 Effective Communication: Communicate effectively in spoken and written form as well as through electronic media with the scientific community as well as with society at large. Demonstrate the ability to write dissertations, reports, make effective presentations and documentation.

PO8 Environment and Society: Analyse the impact of scientific and technological advances on the environment and society and the need for sustainable development.

PO9 Ethics: Commitment to professional ethics and responsibilities.

PO10 Life-long learning: Ability to engage in life-long learning in the context of the rapid developments in the discipline.

PROGRAM SPECIFIC OUTCOMES (PSOs): By the end of the program, the students will be able to

PSO1 Understand principles of physics for the scientific phenomena in classical domain.

PSO2 Understand the mathematical techniques for describing in depth knowledge of physical concepts.

PSO3 Understand and apply statistical methods for describing the classical and quantum particles in various physical systems and processes.

PSO4 Understand and apply inter-disciplinary concepts and for understanding and describing the natural phenomena.

PSO5 Understand the principles of Quantum mechanics for knowing the physical systems in quantum arena.

PSO6 Provide exposure in various specializations of Physics (Solid State Physics/Nuclear Physics/Particle Physics).

PSO7 Provide exposure to modern experimental/theoretical methods for measurement, observation and fundamental understanding of physical phenomena/systems.

PSO8 Engage in research and life-long learning to adapt to changing environment.