

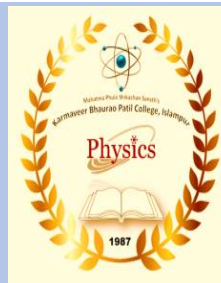


Mahatma Phule Shikshan Sanstha's
KARMAVEER BHAURAO PATIL COLLEGE,
URUN-ISLAMPUR

Department of Physics

(2025-26)

PO's-PEO's-PSO's



Programme Outcomes

PO1: Demonstrate a fundamental and conceptual understanding of core areas in Physics such as mechanics, thermodynamics, modern physics, electronics, and optics.

PO2: Apply physical principles and experimental techniques to analyze scientific problems and interpret data meaningfully.

PO3: Use critical thinking and problem-solving skills in theoretical and laboratory-based physics contexts.

PO4: Operate scientific equipment, conduct experiments, and analyze the results using appropriate computational tools.

PO5: Develop communication skills to present scientific information effectively through oral, written, and digital formats.

PO6: Exhibit ethical practices, social responsibility, and environmental awareness through field-based, community, and laboratory engagements.

PO7: Demonstrate continuous learning and research aptitude required for higher education and employability in scientific and technological sectors.

Program Educational Objectives (PEOs)

PEO1: Gain a solid foundation in physics and related fields enabling the to pursue advanced degrees in Physics, Engineering, or interdisciplinary sciences.

PEO2: Acquire skills for employment in education, research, industry, communication, and service sectors.

PEO3: Demonstrate analytical skills, a scientific mindset, and problem-solving abilities relevant to both academic and societal challenges.

PEO4: Engage in lifelong learning with a commitment to ethical and sustainable scientific practices.

PEO5: Contribute to community and national development through scientific awareness, innovation, and entrepreneurship.

Program Specific Outcomes (PSOs):

PSO1: Conceptual Understanding of Thermal and Optical Physics Apply fundamental concepts of thermodynamics, heat transfer, wave optics, and laser physics to interpret and analyze natural phenomena and practical devices such as heat engines, diffraction gratings, optical fibers, and polarimeter.

PSO2: Proficiency in Experimental and Laboratory Techniques Develop experimental skills by conducting practical's related to thermal conductivity, Interference and diffraction of light, spectrometry, and laser-based measurements, thereby gaining hands-on experience with modern physics instruments.

PSO3: Application of Physics in Modern Technologies Understand and apply the principles of semiconductor devices, transistor amplifiers, digital electronics, and Python programming, enabling them to solve real-world electronics problems and perform basic coding operations in scientific computing.

PSO4: Exploration of Advanced and Applied Physics Domains Demonstrate knowledge of modern physics, atomic models, astronomy, and astrophysics, and relate them to practical applications such as X-ray generation, photoelectric effect, solar observation, and galactic structures.

PSO5: Community and Career Readiness Utilize physics knowledge and vocational training in physics laboratory techniques, skill development, energy auditing, environmental monitoring, and digital literacy to contribute meaningfully to society and prepare for careers in education, research, or industry.




Head
Department of Physics
Karmaveer Bhaurao Patil College
Urun-Islampur, Dist-Sangli-415409