Maratha VidyaPrsarakSamaja's
Arts, Science and Commerce College, Ozar (MIG)

Programme Specific Outcomes

Department of Physics

The following is a specification of the key learning outcomes (knowledge, skills, values and attitude) for Physics graduates at Arts Science and Commerce College, Ozar (Mig) Nashik

1. Knowledge Outcomes:

Graduates will be possess fundamental knowledge of physics, including basic concepts and

principles in

- Students will be demonstrate knowledge of selected topics from Classical mechanics, electrodynamics, quantum mechanics and thermodynamics, LASAR, advanced electronics, solid state physics, optical theory, sound, thermal physics,etc and able to apply this knowledge to analyze a broad range of physical phenomena.
- Mathematical (analytic and numerical) methods and experimental methods for physics.
- Graduates will be able to transfer and apply the acquired concepts and principles to study different Branches of physics.
- Students will demonstrate proficiency in mathematics and the mathematical concepts needed for a proper understanding of physics.
- Students will have learned laboratory skills, enabling them to take measurements in a physics laboratory and analyze the measurements to draw valid conclusions.
- Students will be capable of oral and written scientific communication, and will prove that they can think critically and work independently.

2. Skills Outcomes

Professional Skills

Graduates should have acquired the following professional skills to deal with representative physics problems and situations at the undergraduate level:

- Identifying the key factors and applying appropriate principles and assumptions in the formulation of physics problems;
- Applying appropriate analytical and approximation methods;

- Applying general experimental and measurement skills with prescribed procedures;
- Analysing experimental data and their level of uncertainty, and relating the experimental results with theoretical expectations;
- Applying appropriate scientific programming skills;
- Reporting the solutions to physics problems, experimental or project studies either orally or in written format.

Graduates should be able to integrate and apply these skills to study different branches of physics.

Graduates should have acquired some generic skills in their study, including the following:

- Acquiring knowledge effectively by self-study and work independently;
- Working effectively in a team;
- Presenting information in a clear, concise and logical manner; andhaving good time management skills.
- Being comfortable with numbers and analysing an issue quantitatively;
- Identifying the key issues and attempting different methods in dealing with *general* problems;

3. Attitude/Value Outcomes

Graduates should have developed some positive attitudes and values, including the following:

- Appreciation of physics principles and theories, and the beauties of physics;
- Awareness of the impact of physics in social, economical, and environmental issues;
- Willingness to take up responsibility in study and work;
- Confidence in his/her capabilities; and
- Motivation for life-long learning.

for Bhagya

Head

Department of Physics