

**Department of Physics**  
**Government Girls' General Degree College Kolkata**  
**PROGRAMME OUTCOME AND COURSE OUTCOME**  
**NATIONAL EDUCATION POLICY, 2020**  
**CURRICULAM AND CREDIT FRAMEWORK (CCF)**

➤ **PROGRAMME SPECIFIC OUTCOMES(PSO)**

1.	Pursuance of this programme helps the students to understand our living world with scientific reasoning and mathematical perceptions.
2.	Students learn how to solve problems and prove various theorems. And solving problems based on realistic situations make them understand how various physical systems in everyday life can be dealt with.

➤ **COURSE OUTCOME**

Core Courses	Course Outcomes
Paper: DSC-1/MINOR-1 BASIC PHYSICS-I	<ol style="list-style-type: none"> <li>1. Learn the basic about units, functions, limits, calculus.</li> <li>2. Learn first and second order differential equations.</li> <li>3. Acquire a detail study of vector and its applications.</li> <li>4. Learn various coordinate systems, operator.</li> <li>5. Understand how to describe motion of objects in terms of its mass and force.</li> <li>6. Gain an idea of Inertia, kinetics of physical objects, motion of any objects Inertial and non-inertial frame.</li> <li>7. Understand the idea of conservation of angular momentum, central forces, centre of mass.</li> </ol>

	<ol style="list-style-type: none"> <li>8. Reveal the mystery of planetary motions, gravitation, projectile motion, Rocket, escape velocity.</li> <li>9. Learn collision and scattering of two body.</li> <li>10. Learn Fluid mechanics, properties of fluids, application.</li> </ol>
<p>PAPER: SEC-1: INTRODUCTION TO COMPUTER PROGRAMMING AND GRAPH PLOTTING</p>	<ol style="list-style-type: none"> <li>1. Student should know the graph drawing with gnuplot.</li> <li>2. Through the course of practical students learn to plot functions and data files. They should know how to plot better by practice.</li> <li>3. Students are introduced with the basic operations and programming in python.</li> <li>4. Through the course of practical student should know the elementary programming with python (version 3) and numerical analysis.</li> <li>5. Student expertise themselves by using python the different numerical problems.</li> </ol>

➤ PROGRAMME OUTCOMES(PO)

	<b>Program Outcome</b>	<b>Description</b>
<b>PO1</b>	<b>Subject Knowledge</b>	Knowing the fundamentals of the different areas of discussion within the subject which will enable the students to consider applying the theoretical principles.
	<b>Method of Measurement:</b>	<b>Assessment (Internal &amp; university exam)</b>
<b>PO2</b>	<b>Communication Skills</b>	Encouraging the students to apply the principles of physics in their own lives, both professional and personal, thus, they can communicate with society and nation with scientific view.
	<b>Method of Measurement:</b>	<b>Regular Internal Assessment</b>
<b>PO3</b>	<b>Technical Skill Development</b>	Knowing and developing the technical skills expected from the students professional area.
	<b>Method of Measurement:</b>	<b>Assessment (Internal &amp; Final)</b>
<b>PO4</b>	<b>Personality Development</b>	Personality development skills to the students that are likely to be developed and enlighten their professional and personal lives, thus making them responsible and sincere citizens.
	<b>Method of Measurement:</b>	<b>Regular Mentoring</b>
<b>PO5</b>	<b>Higher Study Foundation</b>	Encouraging the students to pursue higher studies and research in the subject and enhance their knowledge on the same.
	<b>Method of Measurement:</b>	<b>Regular Teacher-Student Interactive Sessions</b>
<b>PO6</b>	<b>Research Orientation and Aptitude</b>	Encouraging the students to pursue research related to the subject either in the academic or in the professional sphere that may lead to a vibrant knowledge economy.
	<b>Method of Measurement:</b>	<b>Regular Teacher-Student Interactive Sessions</b>
<b>PO7</b>	<b>Spirit of Team Work</b>	Encouraging the students to coordinate with one another in a team environment and perform well as a team rather than trying to excel individually at the cost of group performance efficiency.
	<b>Method of Measurement:</b>	<b>Group Activity Assignments Assessment</b>
<b>PO8</b>	<b>Socio-Cultural and Environmental Responsibility</b>	Encouraging the students to be socio-culturally and environmentally responsible citizens and work accordingly towards the betterment of the society and the nation.
	<b>Method of Measurement:</b>	<b>Regular Teacher-Student Interactive Sessions</b>