



The National College

Autonomous

Jayanagar, Bangalore -560070

Department of Physics

For B.Sc I & II Semester

For the Academic years 2021-22, 2022-23 & 2023-24

Title: Building Employability Skills through "Mechanics and Properties of Matter"

1st Semester B.Sc. Physics

Introduction:

The "Mechanics and Properties of Matter" course in the first semester of B.Sc. Physics not only provides a solid foundation in classical mechanics but also fosters essential employability skills. Here are the key employability skills developed through this course:

1. Analytical Thinking:

- The course involves solving complex problems related to motion, forces, and material properties, promoting analytical thinking and logical reasoning.
- Students learn to break down problems into manageable components, a skill transferable to various professional settings.

2. Critical Problem Solving:

- The study of laws of motion, dynamics, and rotational motion hones students' ability to critically analyze and solve real-world problems.
- This skill is valuable in roles requiring troubleshooting, process optimization, and innovation.

3. Numerical and Computational Skills:

- Solving mathematical equations and numerical problems is integral to mechanics. Students develop proficiency in using mathematical tools and computational methods.
- This skill is essential in fields like data analysis, programming, and simulation, enhancing employability in technology-driven industries.

4. Experimental Design and Data Analysis:

- The course involves practical experiments, fostering skills in experimental design, data collection, and analysis.
- These skills are transferable to roles in research and development, quality control, and scientific analysis.