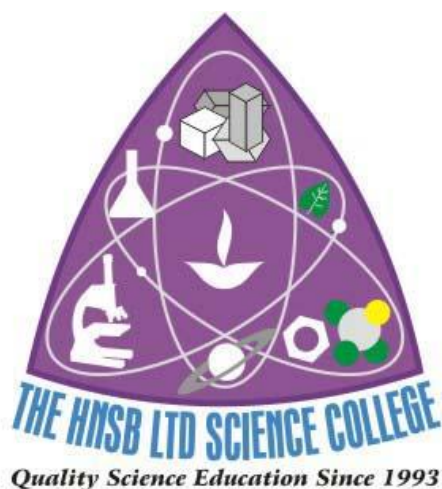


Program Educational Objectives (PEOs),  
Program Outcomes (POs)  
&  
Program Specific Outcomes (PSOs)  
(2024-2025 Batch)  
(B.Sc.Sem.-4)



**THE DEPARTMENT OF PHYSICS**

**THE H. N. S. B. LTD. SCIENCE COLLEGE**  
**N.H. – 48, MOTIPURA,**  
**HIMATNAGAR (S.K.)**  
**GUJARAT (383001)**  
**[www.physicshmt.wordpress.com](http://www.physicshmt.wordpress.com)**

### **Vision:-**

**The Department of Physics strives to provide an intellectual environment that fosters the search for the new knowledge in highly dynamic techno -world through its quality education.**

### **Mission:-**

**The Department focus is on the comprehensive, interdisciplinary teaching in applications of Physic, so as to enable learning and applying new technique in dynamic techno -world as the field evolves.**

## **Program Educational Objectives ( PEOs )**

*The graduate will*

<b>PEO-1</b>	Graduates will develop the skills to handle new techniques applied in dynamic techno-world where they have to serve themselves.
<b>PEO-2</b>	Graduate will use their course as a training ground to develop their positive attitude, skills which will enable them to become a multi facet personality shining in any chosen field.
<b>PEO-3</b>	Graduate will generate the creativity and acquire the knowledge to solve the complex problems due to practical education.
<b>PEO-4</b>	Graduate develop teaching skills, subject knowledge in the course of their study which will help them to shine in various field including education.

## **Program Outcomes(POs)**

<b>PO-1</b>	To make students eligible for Higher Studies and professional courses.
<b>PO-2</b>	To develop the abilities to read, understand and interpret physical information – verbal, mathematical and graphical. To provide an intellectually stimulating environment to develop skills and enthusiasms.
<b>PO-3</b>	students to the best of their potential.
<b>PO-4</b>	To give need based education in physics of the highest quality at the undergraduate level.
<b>PO-5</b>	To enable students to perform experiments and interpret the results of observation, including an assessment of experimental uncertainties. To make students eligible for government job.

## **Program Specific Outcomes(PSOs)**

<b>PSO-1</b>	According to Guideline of NEP 2020, that curriculum, course content and assessment of scholastic achievements play important roles in shaping education.
<b>PSO-2</b>	The view that assessment should support and encourage the broad instructional goals such as basic knowledge of the discipline of Physics including phenomenology, theories and techniques, concepts and general principles.
<b>PSO-3</b>	This should also support the ability to ask subjective questions and to obtain its

	solutions by use of qualitative and quantitative reasoning and by experimental investigation.
<b>PSO-4</b>	With this in mind, we aim to provide a firm foundation in every aspect of Physics ranging from a broad spectrum of modern trends in Physics to experimental, computational and mathematical skills of students.

## Course Outcomes (COs)

<b>Course</b>	<b>Outcomes (Cos)</b>
<b>Minor Discipline specific course(Theory)</b> <b>Paper Name:</b> Nuclear Physics and Plasma Physics <b>Paper Code:</b> SC23MIDSCPHY402	After the successful completion of the course students will be able to To get comprehensive knowledge of radioactivity. To Understands various equilibrium. To understand the Plasma and its behaviour. To get knowledge of plasma diagnostics and space plasma.
<b>Practical</b> Minor Discipline Core Course(MIDSCP)- SC23PMIDSC P PHY402	By the end of the course, the students will be able to understand. <ul style="list-style-type: none"> <li>• The basic principles of Physics related to their courses in the practical way.</li> <li>• The operational details of electronic circuits &amp; Optical Instruments</li> <li>• The process to analyze the observations and infer the outcome of the experiments.</li> <li>• How to analyze the experimental data and graphical analysis.</li> </ul>
<b>SKILL ENHANCEMENT COURSE (Theory)</b> <b>Paper Name:</b> Astro/Space Physics <b>Paper Code:</b> SC23SECPHY406 <b>Paper Name :</b> Transducer and Sound <b>Paper Code:</b> SC23SECPHY406A	At the end of the course students will able to To provide a comprehensive understanding of the sun as a star and its structure. To learn about sun's outer layers and solar activity. To know use of instrument like Spectro heliograph and common features of sun. To understand the principles of Transducers and Sabine's empirical formula Learns about various types of Microphones. To develop foundation in acoustics. To Learn To understand the measurement time of reverberation.
<b>VALUE ADDED COURSE(VAC) COURSE</b> <b>Ppaer Name:</b> Shrimad Bhagvad Gita & Stress Management in Life <b>Paper Code:</b> SC23VACPHY405	To provide awareness and knowledge about Vedas and Shrimad Bhagvad Geeta. To Introduce students to background of Mahabharata and Role of Shri Krishna in Mahabharata. To discuss the importance of Arjunvishadyog. To draw attention of students, how to handle stress management in life. To aware about karmyog in life management.