PHYS1311 : Introductory Physics

Credit Hours: 3
Clock Hours: 45/0/0

This course provides an in-depth understanding of Waves and Energy Transport, covering topics such as Transverse and Longitudinal Waves, Speed of Transverse Waves on a String, Periodic Waves, Principle of Superposition, Reflection and Refraction, Interference and Diffraction, Standing Waves, Sound Waves, The Speed of Sound Waves, Amplitude and Intensity of Sound Waves, Standing Sound Waves, The Human Ear, The Doppler Effect, Echolocation and Medical Imaging, Wavefronts, Rays, and Huygens Principle, The Reflection of Light, The Refraction of Light: Snell's Law, Total Internal Reflection, The Formation of Images Through Reflection or Refraction, and Constructive and Destructive Interaction. The course will focus on the fundamental principles of wave behavior and energy transport, examining the properties of waves and their interactions with matter.