

Introduction to basic physics

Syllabus B.Sc. (VI SEM) CUHP

Physics IDC

Course Code: PAS7210

Course Type: IDC

Course Credits: 2

Course Objectives: To make the students familiar with the basics of physics

Learning Outcomes: After the completion of the course the student will be able to understand the basic of various physical phenomenon in daily use

Course Contents

Section 1- States of matter, Solid, liquid and gaseous phase, Atmospheric gases, Greenhouse effect, Ozone layer, Photosynthesis process. (6 hours)

Section 2- Conductive and non-conductive materials, insulator, conductor, semiconductor, heat generation and cooling through electricity (refrigeration), Voltage supply, ac and dc Current, Basic of household power supply (Frequency, Voltage and current rating of instruments), Fuse wire. (9 hours)

Section 3- Waves, Electromagnetic spectra, Infrared wave, conduction, convection, and radiation, Light wave, travelling of light, reflection, refraction and transmittance of light, Spectra of visible light, (9 hours)

Section 4- Radio Signal, Transmitting radio signal through tower and satellite, geostationary satellite (6 hours)

Reference books:

1. Schaum's Outline of College Physics, Twelfth Edition, McGraw Hill
2. Concept of physics by HC Verma
3. Concept of physics by Crowell
4. Modern Physics by Arthur Beiser McGraw Hill
5. INTRODUCTION TO ELECTRODYNAMICS, 4TH EDITION David J. Griffiths Cambridge University Press