

Lesson Plan (Odd Semester) Session 2025-26

Name of the Assistant Professor:- Mr. Kapil Dev

Class:- B.Sc. 1st (Sem-I)

Subject:- Physics (Mechanics and Theory of Relativity)

Time Period (Duration)	Topics to be covered	Topic of Assignments / Tests to be given to the students
22 July to 30 July 2025	Unit-1: Rigid body, Moment of Inertia, Radius of Gyration, Torque, Angular momentum, Rotational Kinetic energy, Law of conservation of angular momentum, theorem of perpendicular and parallel axis,	
01 Aug. to 15 Aug. 2025	Moment of Inertia of Ring, Disc, solid cylinder, Hollow cylinder, Solid Sphere, hollow sphere, spherical shell solid bar of rectangular cross section,	Assignment - I
16 Aug. to 31 Aug. 2025	Moment of inertia of a Fly wheel, Moment of Inertia of an Irregular body, Acceleration of a body rolling down on an inclined plane.	Unit Test
01 Sept to 15 Sept. 2025	Unit II Elasticity: Elasticity, Stress and Strain, Hooks law, Elastic constant and their relations, Poisson ratio, Torsion of Cylinder and twisting couple, Determination of Coefficient of Modulus of rigidity for the materials of a wire by Maxwell needle,	
16 Sept. to 30 Sept 2025	Bending of Beam (Moment and its magnitudes), Cantilever and centrally loaded beam, Determination of Young's modulus for the materials of beam and Elastic constant for the material of the wire by Searle's method.	Assignment -II
01 Oct. to 15 Oct. 2025	Unit III Theory of Relativity: Reference frames, Inertial and non-inertial frames of references, Galilean transformation, Galilean Invariance and principle of Newtonian relativity,	Unit Test

R.T.O

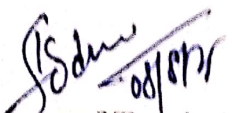
16 Oct. to 31 Oct. 2025	Michelson-Morley Experiment and its outcome, Postulates of Special Theory of Relativity, Lorentz Transformations, simultaneity. Lorentz contraction, Time dilation, Twin paradox,	
01 Nov to 15 Nov. 2025	Velocity addition theorem, Variation of mass with velocity, Mass Energy Equivalence.	Unit Test
16 Nov to 22 Nov. 2025	Revision	


[Signature]
08/8/25
Signature of Teacher

[Signature]
Principal
Khalsa Tri-Shatabdi
Govt. College, Ralia
(Paterabao) 125051

Lesson Plan (Odd Semester) Session 2025-26
Name of the Assistant Professor:- Mr. Kapil Dev
Class:- B.Sc Hnd (3rd-Sem.)
Subject and Paper:- Physics (Waves Optics)

Period	Subject Topic to be covered	Remarks
22 July to 31 July 2025	Unit-1 Basic Concepts (Interference, Diffraction, Wave front), Young's double slit experiment, Coherence, condition of interference,	
1 Aug. to 15 Aug. 2025	Fresnel Biprism and its applications to determines the wavelength of sodium light and thickness of a mica sheet, Phase change on reflection, Interference by division of amplitude, Thin film, Plane parallel film,	
16 Aug. to 31 Aug. 2025	Interference due to reflected light, Interference due to transmitted light, Wedge shape film, Newton's rings and its application,	Unit test
1 Sept. to 15 Sept. 2025	Unit- II : Fresnel's Diffraction: Basic concepts of diffraction, Fresnel's half period zones, Zone plate, Diffraction at a straight edge, diffraction at rectangular slit,	
16 Sept. to 30 Sept. 2025	Fraunhofer Diffraction: Introduction and Basic concepts, Fraunhofer Diffraction due to single slit , Diffraction due to double slit, Plane Diffraction Grating,	Assignment -I
1 Oct. to 15 Oct. 2025	Dispersive power of grating, Limit of Resolution, Rayleigh's criterion, Resolving power of telescope, Resolving power of grating,	
16 Oct. to 31 Oct. 2025	Polarization: Polarisation by reflection, Refraction and Scattering, Malus Law, Phenomenon of Double Refraction, Huygens wave theory of double refraction, Nicol Prism, Quarter wave plate and half wave plate,	Assignment -II
1 Nov. to 15 Nov. 2025	Production and detection of (i) Plane polarized Light (ii) Circularly Polarized (iii) Elliptically polarized light, Optical activity, Fresnel's theory of optical rotation, Specific rotation,	Unit test
16 Nov. to 25 Nov. 2025	Unit Test and Revision	


 Signature of Teacher


 Principal
 Khalsa Tri Shakti
 Govt. College, Raha
 (Punjab) 120051