Government Girls Polytechnic Bilaspur

LESSON PLAN

Session Start Date as per CSVTU: 18.08.2025
Course Name: Applied Physics **Course Code:** 2000B01AT015
Nam of Subject Teacher : **Mrs manorama Sahu**
Lecture plus Tutorial/Week: 3+2
Session: JULY to DECEMBER 2025
Discipline: CSE and IT **Semester-** 1st

LESSON PLAN		
Course Outcome	Topic/Subtopic to be covered under this Unit	No. of Periods Planned
CO-1 Solve Problems that requires unit conversions, dimensional analysis and apply measurement uncertainty to express result with precision.	1.Units for Measurement	1
	2.Fundamental and Derived Units	2
	3. S.I. Units , Advantages of S. I. Unit	1
	4. Dimensional Analysis	2
	5. Dimensions and Dimensional formula	2
	6. Application of Dimensional Analysis	2
	7. Accuracy	1
	8. Precision	1
CO-2 Solve Mechanics related Engineering problems by applying the knowledge of forces and properties of material.	1. Force	
	2.Conservative and Non conservative force	1
	3.Gravitational Force	1
	4.Relation between G and g	1
	5. Factors affecting g	2
	6.Surface Tension	2
	7.Surface tension in daily life	1
	8.Rise of liquid in capillary tube	1
CO-3 Solve engineering problems by applying the principle of ray optics.	1. Refraction	1
	2. Refraction through multiple media	1
	3. Law of Reversibility of light	1
	4. Refraction through lenses at different position.	2
	5. Real and Virtual image.	1
	6. Refraction through Prism	2
	7. Formula for thin Prism.	1
	8. Total Internal Reflection of light.	1
	9.Critial angle, Relation between critical angle and refractive index.	1
	10. Pure and Impure Spectrum	1
	11. Optical fiber	1

CO-4 Apply concepts of electricity and magnetism to solve engineering problems.	1.Static Electricity, Electric charge	1
	2.Coulombs law	2
	3.Electrostatic Potential	1
	4 Current Electricity, Current, Voltage	1
	5.Resistance	1
	6.Specific Resistance and Conductivity	1
	7.Ohm's law	1
	8.Relation between voltage, current and Power in Electric Circuit.	1
	9.Magnetism, Magnetic Pole strength	1
	9. Coulombs Invese Square law for magnets.	1
	10. Magnetic flux and magnetic field intensity.	1
	11. Electromagnetism-linkage magnetic flux of EMF in a coil.	2
\ CO-5 Solve Engineering Problems by applying the knowledge of modern physics.	1.Photoelectric Effect.	1
	2.Laws of Photoelectric emission	1
	3.Threshold frequency.	1
	4.Einsteins photoelectric equation.	1
	5.Laser.	1
	6.Spontaneous and Stimulated emission.	1
	7.Population Inversion.	1
	8.Pumping methods.	1
	9.Active medium and Resonant Cavity.	1
	10.Ruby Laser.	1
	11.Ultrasonic waves and frequency range.	1
	12.Production of ultrasonic waves using Piezoelectric method.	1
	13.Properties of ultrasonic waves.	1
	14.Applications of ultrasonic waves.	1

Subject Teacher : Mrs Manorama Sahu

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