

<b>PHYSICS LABORATORY</b>					
<b>Course Code</b>	<b>FE 150/FE250</b>		<b>Credits</b>	<b>1</b>	
<b>Scheme of Instruction Hours/ Week</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>TOTAL</b>	
	<b>0</b>	<b>0</b>	<b>2</b>	<b>26 hrs/sem</b>	
<b>Scheme of Examination TOTAL = 25 marks</b>	<b>IA</b>	<b>TW</b>	<b>TM</b>	<b>P</b>	<b>O</b>
	<b>0</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>

### Course Outcomes:

The student will be able to:

CO1	Co-relate experiments with theory
CO2	Make physical measurements, tabulate and analyse them and draw meaningful conclusions.
CO3	Maintain a laboratory notebook and well written laboratory report journal.
CO4	To work in a group and complete the given set of tasks

**Minimum 12 Experiments to be performed from the following list.**

<b>SN</b>	<b>Experiment</b>
1	<b>Newton's Ring</b>
2	<b>Air Wedge</b>
3	<b>Hall Effect</b>
4	Velocity of Ultrasonic Waves
5	<b>He/Ne/Diode Lasers – Determination of wavelength &amp; particle size</b>
6	<b>Energy Gap of a Semiconductor</b>
7	<b>Planck's Constant by Photocell</b>
8	<b>B-H Curve</b>
9	<b>Thermistor Characteristics</b>
10	Dispersive power of the material of a prism
11	Determination of Optical Absorption Co-efficient of materials using lasers
12	<b>Helmholtz Resonator</b>
13	Determination of dielectric constant of a parallel plate capacitor
14	Photodiode characteristics and power response
15	Frequency of AC mains using Electric Vibrator
16	Estimation of Fermi Energy of Copper
17	<b>Determine the acceptance angle and numerical aperture of an optical fiber</b>
18	<b>Determination of magnetic field constant along the axis of current carrying coil</b>
19	<b>Series and Parallel L-C-R circuit – Inductance, Bandwidth and Quality Factor</b>

<b>TEXTBOOKS</b>	
1	M. N. Avadhanulu & P. G. Kshirsagar; A text book of engineering Physics; S. Chand & company Pvt. Ltd. Revised edition 2015.
2	A. S. Vasudeva; Modern Engineering Physics; S. Chand & Company Pvt. Ltd. Revised Edition. 2015