

15PY101L	PHYSICS LABORATORY	L	T	P	C
		0	0	2	1
	Total Contact Hours - 30				
	Prerequisite				
	Nil				
PURPOSE					
The purpose of this course is to develop scientific temper in experimental techniques and to reinforce the physics concepts among the engineering students					
INSTRUCTIONAL OBJECTIVES					
1.	To gain knowledge in the scientific methods and learn the process of measuring different Physical variables				
2.	Develop the skills in arranging and handling different measuring instruments				
3.	Get familiarized with experimental errors in various physical measurements and to plan / suggest on how the contributions could be made of the same order, so as to minimize the errors.				

LIST OF EXPERIMENTS

1. Determination of Young's modulus of a given material – Uniform / Non-uniform bending methods.
2. Determination of Rigidity modulus of a given material – Torsion pendulum
3. Determination of dispersive power of a prism – Spectrometer
4. Determination of laser parameters – divergence and wavelength for a given laser source –laser grating/ Particle size determination using laser
5. Study of attenuation and propagation characteristics of optical fiber cable
6. Calibration of voltmeter / ammeter using potentiometer
7. Construction and study of IC regulation properties of a given power supply
8. Study of electrical characteristics of a solar cell
9. Mini Project – Concept based Demonstration

TEXT BOOKS

1. Thiruvadigal, J. D., Ponnusamy,S..Sudha.D. and Krishnamohan M., "*Physics for Technologists*", Vibrant Publication, Chennai, 2013
2. Shukla R. K., and Anchal Srivastava, "*Practical Physics*", 1st Edition, New Age International (P) Ltd, New Delhi, 2006.

REFERENCES

1. Souires G. L., “*Practical Physics:*”, 4th Edition, Cambridge University, UK, 2001.
2. Chattopadhyay D., Rakshit P. C., and Saha B., “*An Advanced Course in Practical Physics*”, 2nd ed., Books & Allied Ltd., Calcutta, 1990.

PY1002 PHYSICS LABORATORY												
Course designed by		Department of Physics and Nanotechnology										
1	Student Outcome	a	b	c	d	e	f	g	h	i	j	k
		x	x			x						
2	Mapping of instructional objectives with student outcome	1	3			2						
3	Category	General (G)		Basic Sciences (B)		Engineering Sciences and Technical Arts (E)			Professional Subjects(P)			
		--		x		--			--			
4	Approval											