



General Physics Lab (1)

Course Code	Course Num.	Course Name	C.H.	Lec.	Lab.	Tut.	Pre-requisites	Co-requisites
PHY	119	General Physics Lab (1)	1	0	2	0		

OBJECTIVES:

- To observe and analyze physical data relevant to some of the experiments in Mechanics and Electricity.
- To provide students with a thorough understanding of the basic concepts of physics and the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis.
- To develop the student's mathematical ability to manipulate formulae and derive correct numerical solutions that can be measured in the real world.
- To instruct students in the competent use of laboratory equipment to collect and record data, apply relevant mathematical models and perform required computations, and present the derived results as an application of a measured observation of the physical world.

SYLLABUS:

Experiment 1: Measurements and uncertainties.

Experiment 2: Free fall.

Experiment 3: Vector addition of forces.

Experiment 4: Simple pendulum.

Experiment 5: Expansion of a helical spring.

Experiment 6: Series and parallel of springs

Experiment 7: Rectilinear motion and Newton's second law.

Experiment 8: Linear motion: Conservation of mechanical energy of a uniformly accelerated mass.

Experiment 9: Static friction, sliding friction and rolling friction.

Experiment 10: Coefficient of viscosity by Stoke's method

TEXTBOOK:

- Laboratory Manual supplied by the Department of Physics.
- Laboratory Manual is available at the website of the Department of Physics.