



Phys 3605L	PHYSICS LAB-V	(CR2)
Course	Phys 2002	

Objectives

To give students training in performing experiments that led to great discoveries in physics.

Syllabus

Measurement of wavelengths of laser light by using Michelson interferometer, The determination of Cauchy's constants using spectrometer, To determine e/m of an electron using a fine beam tube, To measure Planck's constant by studying photoelectric effect, To measure the critical potential of mercury by Frank-Hertz method, To study some aspects of Ferromagnetism by drawing B. H. curve. (a) To determine the characteristic of G. M. tube and measure the range and maximum energy of β particles. (b) Measurement of half-life of a radioactive source (c) Characteristics of G.M. counter and study of fluctuations in random process.

(At least six experiments must be performed by individual department of affiliated colleges covering all subject areas of the lab course.)

Recommended Books

1. *Physics laboratory experiments* by J. D. Wilson, Cengage Learning (2014)
2. *General Physics Laboratory I Experiments* by Kapila Clara Castoldi, Kendall Hunt, 2015
3. *Physics Lab Experiments* by Matthew French, Mercury Learning & Information, (2016)
4. *Experiments And Demonstrations In Physics: Bar-ilan Physics Laboratory* by Kraftmakher Yaakov, World Scientific (2014)