

Course Title	PHYSICS LAB III
Course Code	MPHY-263
Credit Hours	CH 1
Pre- requisites	MPHY-231
Learning outcomes	To train students in performing experiments related to modern physics
Contents	<p>Modern Physics: 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 the Black-Body radiation, To study the characteristics curve of solar cell, Neon flash bulb experiment, Ionization potential experiment, Millikan oil drop experiment, speed of light experiment.</p> <p><i>*Note: Any eight experiments must be performed subject to the availability of apparatus.</i></p>
Teaching-learning Strategies	Classroom teaching / Lecturing, practical
Assignments- Types and Number	Problem sheet, 3-4, Experimental write-up, data analysis and data plotting, observations and calculations etc.,
Assessment and Examinations	<p>Mid-Term Assessment: 35%</p> <p>Formative Assessment: (25%): It includes classroom participation, attendance, assignments and presentations, homework, attitude and behavior, hands-on-activities, short tests, quizzes etc.</p> <p>Final Term Assessment: 40%</p>
Text Books	<ol style="list-style-type: none"> 1. Physics laboratory experiments by J. D. Wilson, Cengage Learning (2014). 2. General Physics Laboratory I Experiments by K. Clara Castoldi, Kendall Hunt, (2015). 3. Physics Lab Experiments by M. French, Mercury Learning & Information, (2016). 4. Experiments And Demonstrations In Physics: Bar-ilan Physics Laboratory by Kraftmakher Yaakov, World Scientific (2014).