

<b>Course Title</b>	<b>Physics Lab III</b>
<b>Course Code</b>	<b>MPHY-263</b>
<b>Credit Hours</b>	<b>CH 1</b>
<b>Pre- requisites</b>	<b>MPHY-231</b>
<b>Learning outcomes</b>	To train students in performing experiments related to modern physics
<b>Contents</b>	<p><b>Modern Physics:</b> Measurement of wavelengths of laser light by using Michelson interferometer, The determination of Cauchy's constants using spectrometer, To determine <math>e/m</math> 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>
<b>Teaching-learning Strategies</b>	Classroom teaching / Lecturing, practical
<b>Assignments- Types and Number</b>	Problem sheet, 3-4, Experimental write-up, data analysis and data plotting, observations and calculations etc.,
<b>Text Books</b>	<ol style="list-style-type: none"> <li>1. Physics laboratory experiments by J. D. Wilson, Cengage Learning (2014).</li> <li>2. General Physics Laboratory I Experiments by K. Clara Castoldi, Kendall Hunt, (2015).</li> <li>3. Physics Lab Experiments by M. French, Mercury Learning &amp; Information, (2016).</li> <li>4. Experiments And Demonstrations In Physics: Bar-ilan Physics Laboratory by Kraftmakher Yaakov, World Scientific (2014).</li> </ol>