

<b>Course Title</b>	<b>PHYSICS LAB II</b>
<b>Course Code</b>	<b>MPHY-262</b>
<b>Credit Hours</b>	<b>CH 1</b>
<b>Pre- requisites</b>	<b>FSc / A-Level (Physics) or equivalent</b>
<b>Learning outcomes</b>	The objective of this course is to develop laboratory skills in students which provides depth of understanding the physics and laws of physics by performing experiments.
<b>Contents</b>	<p><b>Electricity and Magnetism:</b> Essentials of the oscilloscope, Function generators, Electromagnets, Transformers, Carey Foster Bridge, Galvanometer and voltmeter, Potentiometer and Ballistic Galvanometer, BH Curve, To study the Acceptors and Rejectors circuits, Earth Magnetic Field, To study the Dielectric constant for different materials,</p> <p><b>Thermal Physics:</b> To Study the thermal conductivity of materials, study the expansion coefficients of different materials, Application of thermistors and thermo-couples, Specific heat by Calorimeter, Stephan-Constant experiment, Heat Engine 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>Assessment and Examinations</b>	<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>
<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>