

**Centre for High Energy Physics
Faculty of Science
University of the Punjab, Lahore
Course Outline**



Program	BSCP	Course Code	CPHY 214L	Credit Hours	1
Course Title	Physics Lab II				
Course Introduction					
The course introduces Mechanics with hands on lab experiment in Lab					
Learning Outcomes					
The Lab will cover the experiment in Mechanics. After the completion of the Lab the students will be able to:					
<ul style="list-style-type: none"> 3. Verify the various laws of mechanics. 4. Learns different techniques of analyzing and presenting scientific data. 					
Course Content					
1	The determination of wavelength of light/Laser by Diffraction grating.				
2	Determination of wavelength of sodium light by Fresnel's bi-prism.				
3	The determination of Resolving power of a diffraction grating.				
4	Measurement of resistance using a Neon flash bulb and condenser.				
5	Conversion of galvanometer into Voltmeter & an Ammeter.				
6	Calibration of an Ammeter and a Voltmeter by potentiometer				
7	Charge sensitivity of a ballistic galvanometer.				
8	Comparison of capacitance by ballistic galvanometer				
9	To study the BH curve & measuring the magnetic parameters				
10	Measurement of low resistance coil by a Carey Foster Bridge				
11	Resonance frequency of an acceptor circuit				
12	Study of the parameter of wave i.e. Amplitude, phase and time period of a complex signal by CRO				
13	Measurement of self/mutual inductance				

14	Study of electric circuits by black box
15	Determining resistances using a Wheatstone bridge
	(Note: Any eight experiments can be performed subject to the availability of apparatus.)

Teaching Learning Strategies

The instructor is required to give a background of the theory relevant to the experiments, working of the equipment used. They are also required to submit a report including their data, results of fits, plots or results of any analysis method applied.

Assignments: Types and Number with Calendar

At least two assignments and two quizzes. A course project may also be assigned.

Assessment

Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.
3.	Final Assessment	40%	Written Examination at the end of the semester. At least fifty percent of the question paper would involve new problems related to the concepts learned in the course. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.