Mutah University

Faculty of Science

Physics Department

جامعة مؤتة

كلية العلوم

قسم الفيزياء

General Physics Lab (1) Syllabus

Course Code	Course Name	Credits	Contact Hours
0302111	General Physics Lab (1)	1	48

INSTRUCTOR/COORDINATOR	
Name	Dr. Emad Jaradat
Email	ejaradat@mutah.edu.jo
Website	https://academics.mutah.edu.jo/ejaradate

TEXTBOOK

- Physics for Scientists and Engineers, Serway and Jewett, 9th edition.
- Practical physics, G. L. Squires, University of Cambridge, 4th edition.

SPECIFIC COURSE INFORMATION

A. Brief Description of the Content of the Course (Catalog Description)

General physics laboratory provides students to apply the concepts and physical laws that are introduced in lectures related to physics I and physics II. The students will be provided with video links to watch the theory part before coming to the lab, due to the lab's time had been reduced to two hours. Each class will have a short discussing about the theory part, the concepts and any formulas of the main topic for the experiment. The lecture will also cover any expected problems in the lab-report. All the experiments will be performed in groups. Note: each student needs to turn in an individual lab report.

B. Pre-requisites (P) or Co-requisites (C)

0302101 General Chemistry (1)

C. Course Type (Required or Elective)

Required (Compulsory Faculty course)

SPECIFIC GOALS

A. Specific Outcomes of Instruction

Students will gain the ability to:

1. **Apply different procedures and techniques for each experiment [SLO 6]**
2. **Learn about the various measuring devices to record the data [SLO 6]**
3. **Apply equations related to physical laws to get quantitative results [SLO 6]**
4. **Improve students' communication skills [SLO 3]**
5. **Work effectively as a part of a team. [SLO 5]**

B. Student Outcomes Addressed by the Course

1	2	3	4	5	6	7
		✓		✓	✓	

BRIEF LIST OF TOPICS TO BE COVERED

List of Topics	No. of Weeks	Contact Hours
Introduction	1	3 hours
Measurements	1	3 hours
Vectors and force board	1	3 hours
Rectilinear motion	1	3 hours
Projectile motion	1	3 hours
Uniform circular motion	1	3 hours
Newton's laws (A)	1	3 hours
Newton's laws (B)	1	3 hours
Forces of friction	1	3 hours
Conservation of energy	1	3 hours
Linear momentum and collision (A)	1	3 hours
Linear momentum and collision (B)	1	3 hours
Rotational motion	1	3 hours
Moment of inertia	1	3 hours
Simple harmonic motion	1	3 hours
Simple pendulum	1	3 hours
Final Exam	1	3 hours
Total	16	48 hours

METHODS OF ASSESSMENT

No.	Method of assessment	Week and Date	%
1	First Mid-term exam	8th week	20
2	Lab Reports, Homework, Quizzes, Attendance	During the Semester	40
4	Final Examination	Final Week	40
Total			100