The Hashemite University
Faculty of Sciences
Course Syllabus
Department of Physics

Course Title:	**General Physics Lab. (3)**	**Course Number:**	11010211
Designation:	Compulsory	**Prerequisite(s):**	110102203
Instructor:	Ghada Assayed	**Instructor's e-mail:**	ghadaa@hu.edu.jo
Office Hours:	10:00-10:30 Sunday, 10:30 –11:30 Monday and Wednesday *		

Course Description: This course allows students to perform important experiments that illustrate topics discussed in cores physics 3. The students will obtain experience using modern laboratory instruments and practice methods of data acquisition and analysis. The student's scientific communication skills and ability to search the scientific literature will be developed.
This lab gives physics student a direct interaction with medium physics concepts. In this lab students get direct hands on experience on many concepts of physics.
Textbook: Physics 211 manual.
Major Topics Covered:

Experiments

Standing wave
Physical Pendulum
Rotational motion
Static Equilibrium
Mid Exam
Lenses and mirrors
Prism
Diffraction grating
Young-double slit
Inverse square law
Polarization

Specific Outcomes of Instruction (Course Learning Outcomes):

After successfully completing this laboratory course you should at least be able to:

⇒ Demonstrate basic experimental skills by practicing sitting up the experiment, caring about the instruments, and precisely following the procedure to find results with minimum experimental error. **(a, b, c, e)**

⇒ Estimate experimental errors in measured and derived quantities. **(a,c)**

⇒ Do some physical approximations and modeling, by applying physical laws to real problems, and connecting mathematical predictions with experimental results. **(b,c)**

⇒ Show basic communication skills by working in groups on a laboratory experiment. **(d,f)**

Student Outcomes (SO) Addressed by the Course:

#	Outcome Description	Contribution
Physics Student Outcomes		
(a)	a recognition of universal physical laws relevant to the problem, and ability to use the relevant laws to the problem.	H
(b)	Set up experiments to measure physical quantities, record data, analyze results, and fit the data with appropriate mathematical formulas.	H
(c)	an ability to evaluate the limitations of problem solutions.	H
(d)	an ability to function on multidisciplinary teams	M
(e)	an understanding of professional and ethical responsibility	M
(f)	an ability to communicate effectively	M
(g)	an understanding of the impact of physics and science on society.	L
H=High, **M**= Medium, **L**=Low		

Grading Plan:	**Midterm exam: 30 Points** **Reports: 30 Points** **Final exam: 40 Points**

General Notes: Here are few requests that we ask so this laboratory can function in an ordinary manner and provide the maximum educational benefits:

1. Attendance for all experiments is an obligation. Three or more unexcused absences will result in a failing grade. Any labs that were missed cannot be taken later, unless a valid medical reason is presented, or very special circumstances arise. You are required to notify your lab instructor of your absence immediately if you wish to not receive a zero for the absent lab(s).

2. You will work in groups of three or four students each. Each group should work in its assigned area and should not interrupt other groups' area.

3. Your laboratory reports are important for determining your grade in the course. You must write them neatly on the provided sheets. Graphs must be submitted on graph paper.

4. You will perform each experiment in cooperation with your partner in lab; each student must work independently to write his/her report. EACH PERSON'S REPORT MUST BE COMPLETELY HIS OWN. If it appears that two students have worked together on the write-up, each person will receive a zero for the lab report.

5. Eating, drinking, or smoking, are not allowed in the laboratory. Besides, it is prohibited to use cell phones in the laboratory, so turn it off.