

## Jordan University of Science and Technology Faculty of Science & Arts Physics Department

PHY107 General Physics Laboratory (For Non-Physics Students)

Summer Semester 2019-2020

## **Course Catalog**

1 Credit Hours. This laboratory has 10 experiments that emphasize the experimental techniques and procedures in writing formal reports. These experiments reinforce and extend the work of the lectures of physics course Phys. 101 & physics 102. The experiments emphasize on different topics in mechanics and electricity and magnetism as shown in details in the table below.

	Text Book		
Title	General Physics Laboratory (Phys. 107)		
Author(s)	Department of Physical Sciences		
Edition	1st Edition		
Short Name	Ref. 1		
Other Information			

## **Course References**

Short name	Book name	Author(s)	Edition	Other Information
Ref. 2	Physics for Scientists and Engineers	Serway and Jewett	9th Edition	

Instructor		
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## Class Schedule & Room

Section 1:

Lecture Time: Thu: 08:30 - 12:30

Room: LAB4 PH3 L0

Section 2:

Lecture Time: Thu: 08:30 - 12:30

Room: LAB4 PH3 L0

Section 3:

Lecture Time: Thu: 12:30 - 16:30

Room: LAB4 PH3 L0

Section 4:

Lecture Time: Thu: 12:30 - 16:30

Room: LAB3 PH3 L0

Section 5:

Lecture Time: Thu: 08:30 - 12:30

Room: LAB1 PH3 L0

Section 6:

Lecture Time: Thu: 12:30 - 16:30

Room: LAB1 PH3 L0

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Measurements and Errors	From <b>Ref. 1</b>
Week 2	Projectile motion	From <b>Ref. 1</b>

Week 3	Newton's Second Law	From <b>Ref. 1</b>
Week 4	Rotational motion	From <b>Ref. 1</b>
Week 5	Conservation of energy	From <b>Ref. 1</b>
Week 6	Ohm's Law	From <b>Ref. 1</b>
Week 7	Potentiometer	From <b>Ref. 1</b>
Week 8	Galvanometer	From <b>Ref. 1</b>
Week 9	RC Circuits	From <b>Ref. 1</b>
Week 10	Wheatstone-Bridge	From <b>Ref. 1</b>
Week 11	Supplementary experiment	
Week 12	Final Lab Exam	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Strengthen the students understanding of the basic physical concepts, measurements, motion, energy, electricity and magnetism [21, 33, 14]	15%	
Develop the students' skills in collecting and analyzing the data and formulating meaningful conclusions based on this data [21, 33, 14]	30%	
Describe and calculate uncertainty of the measured values [21, 33, 14]	10%	
Enhance ability of students to communicate results and ideas through writing scientific reports and drawing figures [21, 33, 14]	30%	
Practice students skills at working cooperatively within a group to achieve solutions to given problems [21, 33, 14]	15%	

Relationship to Program Student Outcomes (Out of 100%)					
1	2	3	4	5	6
33.33		50	16.67		

Evaluation		
Assessment Tool	Weight	
Reports	40%	
Quizes	20%	
Final exam	40%	

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