



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

PHY105 General Physics (Laboratory)

First Semester 2017-2018

**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. The experiments emphasize on mechanics such as motion at constant acceleration, Newton's laws of motion, conservation of mechanical energy, linear and angular momenta.

**Text Book**

<b>Title</b>	General Physics Laboratory Manual I 105
<b>Author(s)</b>	Physics Department/JUST
<b>Edition</b>	1st Edition
<b>Short Name</b>	Manual
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
Serway	Physics for Scientists and Engineers	Raymond A. Serway & John W.	9th Edition	

**Instructor**

Name	<b>Dr. Hasan Al-Khateeb</b>
Office Location	PH3 L1
Office Hours	Sun : 12:30 - 13:30 Mon : 13:00 - 14:00 Tue : 12:30 - 13:30 Wed : 13:00 - 14:00 Wed : 14:00 - 15:30 Thu : 12:30 - 13:30

Email	hkhateeb@just.edu.jo
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Class Schedule & Room
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Section 1:  
Lecture Time: Sun : 10:30 - 12:30  
Room: LAB2 PH3 L0

Prerequisites
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Line Number	Course Name	Prerequisite Type
921010	PHY101 General Physics (1)	Pre./Con.

Tentative List of Topics Covered
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Weeks	Topic	References
Week 1	Measurements and errors	
Week 2	Force table	
Week 3	Motion in one dimension	
Week 4	Projectile motion	
Week 5	Newton's second law	
Week 6	Friction	
Week 7	Conservation of energy	
Week 8	Uniform circular motion	
Week 9	Conservation of linear momentum	
Week 10	Rotational dynamics	

Mapping of Course Objectives to Program Student Outcomes <sup>1</sup>	Assessment method
The student should use the equipment available to him to measure in a correct manner. [2(a), 3(b), 2(c), 1(d), 1(e), 1(f), 1(g), 1(i), 1(k)]	MID
The student should compare the experimental result to the accepted value of the physical quantities. [2(a), 3(b), 2(c), 1(d), 1(e), 1(f), 1(g), 1(h), 1(i), 1(k)]	MID
The student should describe the relationship between the physical quantities. [2(a), 3(b), 2(c), 1(d), 1(e), 1(f), 1(g), 1(h), 1(i), 1(k)]	MID
The student represents the practical data on the graph and the calculations are performed on it. [2(a), 3(b), 2(c), 1(d), 1(e), 1(f), 1(g), 1(h), 1(i), 1(k)]	MID
To provide an experimental foundation for the theoretical concepts introduced in the lectures. [2(a), 3(b), 2(c), 1(d), 1(e), 1(f), 1(g), 1(h), 1(i), 1(k)]	MID

The student should learn how to write a technical report which communicates scientific information in a clear and concise manner. [2(a), 3(b), 2(c), 1(d), 1(e), 1(f), 1(g), 1(h), 1(i), 1(k)]	MID
The student should try to introduce new concepts and techniques which have a wide application in experimental science [2(a), 3(b), 2(c), 1(d), 1(e), 1(f), 1(g), 1(h), 1(i), 1(j), 1(k)]	

Relationship to Program Student Outcomes (Out of 100%)										
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
14.33	21.49	14.33	7.16	7.16	7.16	7.16	5.93	7.16	0.93	7.16

Evaluation	
Assessment Tool	Weight
MID	60%

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