



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

PHY101A General Physics (1) (For Life Sciences Majors)

Summer Semester 2019-2020

**Course Catalog**

3 Credit Hours. This course gives an introduction to mechanics, motion of particle, Newton laws and energy concept, thermodynamics, fluid mechanics, vibrations and waves.

**Text Book**

<b>Title</b>	Physics for Scientists and Engineering with Modern Physics
<b>Author(s)</b>	R Serway
<b>Edition</b>	9th Edition
<b>Short Name</b>	1
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
Ref 1	Physics	Physics by J Cutnell and K Johnson	9th Edition	
Ref 2	Physics	S Kane	1st Edition	

**Instructor**

Name	<b>Bashar Al Jawneh</b>
Office Location	-
Office Hours	
Email	bsaljawneh@just.edu.jo

**Class Schedule & Room**

Section 1:

Lecture Time: Sun, Mon, Tue, Wed : 14:30 - 16:00

Room: منصة الكترونية

**Tentative List of Topics Covered**

Weeks	Topic	References
Weeks 1, 2	Vectors and Motion in one dimension	From 1
Weeks 3, 4	Motion in two dimensions, Newton's laws of motion	ch.4 and ch.5 From 1
Weeks 5, 6	Friction, Work & Energy, Rotational motion	ch. 5, ch.6, ch7 Ch 8 From 1
Weeks 7, 8	Rotation, Static Equilibrium and Torque, Mechanical properties of solids.	ch 10, ch 11 From 1
Weeks 9, 10	Temperature and Heat, Laws of Thermodynamics	ch. 19, ch.20 From 1
Weeks 11, 12	Fluid mechanics	ch 14 From 1
Week 13	Fluids	ch.14 From 1
Week 14	Vibrations and Waves	ch 15, ch 16 From 1

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understanding kinematics and Newton dynamics [31]	30%	
Understanding the concept of energy and Static equilibrium [31]	30%	
Understanding the concept of Heat, Fluid, and wave motion [31]	40%	

**Relationship to Program Student Outcomes (Out of 100%)**

1	2	3	4	5	6
100					

**Evaluation**

Assessment Tool	Weight
first	30%
second	20%

Final	50%
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<b>Policy</b>	
Physics 101A	The student must know the particle kinematics and particle dynamics. The student should know the thermodynamic laws and fluids.

Date Printed: 2020-09-24