Course Syllabus
Faculty of Arts and Science

Academic Department Basic Science and Humanities

Academic Year 2021 / 2022 Semester: Second

Course Title :	General Physics for Pharmacy
Course No. :	1501123
Prerequisite :	-
Concurrent :	-
Department :	Basic Science and Humanities
Coordinator :	Dr.Husam Miqdad
Mode of Instruction	**On Campus Learning** - 2 hours in-class (Synonym) learning

*** Instructor:**

Lecturer	Office Phone	Room No.	Office Hours	E-mail
Dr.Husam Miqdad	217	1409	(9:30-12:30) Mon., Wed.	h_miqdad@asu.edu.jo
Tasneem Alayed	1412	215	Sat,Mon.,Tue., Thr., Wed. (9-10)	t_ibrahim@asu.edu.jo

Course Description

The material in this course covers fundamental topics in classical physics (mechanics, Fluids, Heat, and Light). The students will learn the basic concepts of physics and its application in Biology, Medicine, and Pharmacy. This course is specified for pharmacy students.

Intended Learning Outcomes

Upon the completion of the course, this module should lead to the following learning outcomes:

A. Knowledge and Understanding (Student should):

A1 Be able to understand the basic concepts and principles in physics.

A2 Be able to solve problems.

B. Cognitive and Intellectual Skills (Student should):

B1 Distinguish physical applications needs and requirements

B2 Analyze and compare the different applications requirements

C. Subject Specific Skills (Student should):

C1 Learn how to implement different applications in physics.

C2 Implement solution of physics

D. Transferable Skills (Student should):

D1 Home works and quizzes.

D2 Assignments

Program Learning Outcomes (PLOs):

1. ----------
2. ----------
3. ----------
4. ----------
5. ----------

Course Learning Outcomes Alignment Matrix				
	CLO. 1	CLO. 2	CLO. 3	CLO. 4
PLO.1:	--	--	--	--
PLO 2:	--	--	--	--
PLO.3:	--	--	--	--
PLO.4:	--	--	--	--
PLO. 5	--	--	--	--

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Course Contents and Schedule

Week	Day and Date	Topics to be covered	Method of instruction	CLOs	PLOs
1	Sun. 6/3/2022	Reference Frames and Displacement.	In-class lecture	A1,A2, B1, C2,D1	
	Tue.8/3/2022	Average Velocity.	In-class lecture		
2	Sun. 13/3/2022	Instantaneous Velocity	In-class lecture	A1,A2, B1, C2,D1	
	Tue. 15/3/2022	Acceleration Motion at Constant Acceleration	In-class lecture		
3	Sun. 20/3/2022	Kinematics in Two Dimensions: Vectors Vectors and Scalars	In-class lecture	A1, B1, C1, D1	
	Tue. 22/3/2022	Addition of Vectors—Graphical Methods	In-class lecture		
4	Sun. 27/3/2022	Subtraction of Vectors, and Multiplication of a Vector by a Scalar Adding Vectors by Components	In-class lecture	A1,B1, C1,D1	
	Tue. 29/3/2022		In-class lecture		
5	Sun. 3/4/2022	Dynamics: Newton's Laws of Motion Force	In-class lecture	A1,A2, B1, C2,D1	
	Tue. 5/4/2022	Newton's First Law of Motion Mass	In-class lecture		
6	Sun. 10/4/2022	Newton's Second Law of Motion	In-class lecture	A1,A2,B1,B 2,C1,C2, D1, D2	
	Tue. 12/4/2022	Newton's Third Law of Motion	In-class lecture		
7	Sun. 17/4/2022	Weight—the Force of Gravity;and the Normal Force Solving Problems with Newton's Laws:Free-Body Diagrams	In-class lecture	A1,A2,B1,B 2,C1,C2, D1,D2	
	Tue. 19/4/2022	Problems Involving Friction, Inclines	In-class lecture		
8	Sun. 24/4/2022	Work and Energy Work Done by a Constant Force	In-class lecture	A2, B2, C1,C2,D2	
	Tue. 26/4/2022	Work Done by a Varying Force	In-class lecture		
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10	Sun. 8/5/2022	Kinetic Energy, and the Work-Energy Principle Potential Energy Conservative and Nonconservative Forces	In-class lecture	**A2,B2,C2,D1,D2**	
	Tue. 10/5/2022		In-class lecture		
11	Sun. 15/5/2022	Mechanical Energy and Its Conservation Problem Solving Using Conservation of Mechanical Energy Other Forms of Energy and Energy Transformations; The Law of Conservation of Energy	In-class lecture	**A2, B1,B2,C2,D1**	
	Tue. 17/5/2022		In-class lecture		
12	Sun. 22/5/2022	Energy Conservation with Dissipative Forces: Solving Problems Power	In-class lecture	**A2**	
	Tue. 24/5/2022		In-class lecture		
13	Sun. 29/5/2022	Phases of Matter Density and Specific Gravity Pressure in Fluids	In-class lecture	**A2,B1,C1,D2**	
	Tue. 31/5/2022		In-class lecture		
14	Sun. 5/6/2022	Atmospheric Pressure and Gauge Pressure Pascal's Principle Measurement of Pressure; Gauges and the Barometer Buoyancy and Archimedes' Principle	In-class lecture	**A2,B2,C1,D1**	
	Tue. 7/6/2022		In-class lecture		
15	Sun. 12/6/2022	Fluids in Motion; Flow Rate and the Equation of Continuity Bernoulli's Equation Applications of Bernoulli's Principle: Blood Flow	In-class lecture	**A2,B1,B2,C1,D2**	
	Tue. 14/6/2022		In-class lecture		
16.	**Final Exam**				

Grading Plan and Assessment Tools

Assessment Tools	Weights	Due date
Mid-term	30	
Assignments	---	
Quizzes	20	
Inter active lectures	---	
Group Work	---	
Presentation	---	
Reports	---	
Project	---	
Case-Study	---	
Final Exam	50	

Supplementary Reading

Textbook:

1- **"Physics, Principles with application", by D. C. Giancoli, 7th ed. 2014, Pearson.**

References:

1- "Physics in Biology and Medicine", by Paul Davidovits, 3th ed. 2007, Elsevier.
2- Physics" Third Edition (1988) by Joseph W. Kane, and Morton M. Sternheim

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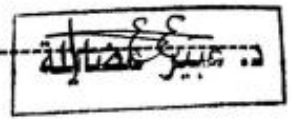
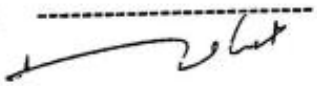
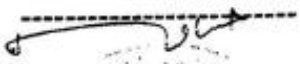
Subject Coordinator	Dr. Abeer Adaileh	Signature:	
Head of Curriculum Committee	Dr. Husam Miqadad	Signature:	
Department Head	Dr. Husam Miqadad	Signature:	
Faculty Dean	Dr. Hadeel Ail saed	Signature:	

Copy to:

- Department Head.
- Head of Curriculum Committee.
- Course File.