جامعة الزيتونة الأردنية
Al-Zaytoonah University of Jordan
كلية العلوم وتكنولوجيا المعلومات
Faculty of Science and information Technology

" عراقة وجودة"
"Tradition and Quality"

QF01/0408-4.0E	**Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ physics Department**

Study plan No.	2021/2022	**University Specialization**	Bachelor of physics
Course No.	0150101	**Course name**	General Physics laboratory 1
Credit Hours	1	**Prerequisite/ Co-requisite**	General Physics (1)

Course type	☐ MANDATORY UNIVERSITY REQUIREMENT	☐ UNIVERSITY ELECTIVE REQUIREMENTS	☐ FACULTY MANDATORY REQUIREMENT	☐ Support course family requirements	✓ **Mandatory requirements**	☐ Elective requirements
Teaching style	☐ **Full online learning**		☐ **Blended learning**		✓ **Traditional learning**	
Teaching model	☐ **1 Synchronous: 1 asynchronous**		☐ **1 face to face : 1 asynchronous**		✓ **1 Traditional**	

Faculty member and study divisions' information (to be filled in each semester by the subject instructor)

Name	**Academic rank**	**Office No.**	**Phone No.**	**E-mail**	
Division number	**Time**	**Place**	**Number of students**	**Teaching style**	**Approved model**

Brief description

The course contains this laboratory number of experiments: Treatment of Experimental Errors & Data Analysis, Estimate The Error of Each Measurement in Using Measuring Tools, Motion in One Dimension, Vectors – Forces Equilibrium, Motion in Two Dimensions – Projectiles, Newton's Second Law, Conservation of Energy, Conservation of Linear Momentum, Simple Harmonic Motion and Hooke's Law

Learning resources

Course book information (Title, author, date of issue, publisher ... etc)	1. Laboratory Experiment Physics (I), 2017.
Supportive learning resources (Books, databases, periodicals, software, applications, others)	1.Physics for Scientists and Engineers with Modern Physics 9th Edition, Raymond A. Serway, 2015. 2. University Physics (Sears and Zemanisky) Pearson 13 th edition 2013. 3. Fundamentals of physics 10th edition jearl walker, 2014.
Supporting websites	• https://en.wikipedia.org/wiki/Physics • https://ocw.mit.edu/courses/physics/8-01sc-classical-mechanics-fall-2016/
The physical environment for teaching	☐ Class room ✓labs ☐ Virtual educational platform ☐ Others
Necessary equipment and software	
Supporting people with special needs	
For technical support	

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Course learning outcomes (S= *Skills, C= Competences K= Knowledge,*)

No.	Course learning outcomes	The associated program learning output code
Knowledge		
K1	**Define** the physical quantities, physical phenomena, and basic principles of physics related to the course.	**MK 1**
K2	**Record** the physical quantity at the lab.	**MK 2**
Skills		
S1	**Calculate** the physical quantity related to the course.	**MS 1**
S2	**Determine** some physical quantity at the lab.	**MS 3**
Competences		
C1	Cooperate to work effectively in the group assignments.	**MC 1**

Mechanisms for direct evaluation of learning outcomes

Type of assessment / learning style	Fully electronic learning	Blended learning	Traditional Learning (Theory Learning)	Traditional Learning (Practical Learning)
Midterm exam	30%	30%	40%	**30%**
Participation / practical applications	0	0	10%	**30%**
Asynchronous interactive activities	30%	30%	0	**0**
Final exam	40%	40%	50%	**40%**

Schedule of simultaneous / face-to-face encounters and their topics

Week	Subject	learning style*	Reference **
1.	Introduction	Lecture	
2.	Treatment Of Experimental Errors & Data Analysis	experiment	1-5
3.	Estimate The Error Of Each Measurement In Using Measuring Tools	experiment	6 – 13
4.	Motion In One Dimension	experiment	14 – 17
5.	Vectors – Forces Equilibrium	experiment	18 – 22
6.	Motion In Two Dimensions – Projectiles	experiment	23 – 26
7.	Newton's Second Law	experiment	27 – 31
8.	**Mid–Term Exam**		
9.	Conservation of Energy.	experiment	32 – 37
10.	Conservation Of Linear Momentum & Energy	experiment	38 – 42
11.	Simple Harmonic Motion	experiment	43 – 47
12.	Hooke's Law	experiment	48 – 52
13.	Revision	Lecture	
14.	Final Exam		