



<b>Form: Course Syllabus</b>	<b>Form Number</b>	EXC-01-02-02A
	<b>Issue Number and Date</b>	2/24/2022/2963 05/12/2022
	<b>Number and Date of Revision or Modification</b>	
	<b>Deans Council Approval Decision Number</b>	2/3/2023
	<b>The Date of the Deans Council Approval Decision</b>	23/01/2023
	<b>Number of Pages</b>	06

<b>1.</b>	<b>Course Title</b>	Practical Physics I
<b>2.</b>	<b>Course Number</b>	0302111
<b>3.</b>	<b>Credit Hours (Theory, Practical)</b>	1
	<b>Contact Hours (Theory, Practical)</b>	(0,3)
<b>4.</b>	<b>Prerequisites/ Corequisites</b>	Department Approval
<b>5.</b>	<b>Program Title</b>	B. S.C Degree in Physics
<b>6.</b>	<b>Program Code</b>	02
<b>7.</b>	<b>School/ Center</b>	School of Science
<b>8.</b>	<b>Department</b>	Physics
<b>9.</b>	<b>Course Level</b>	Undergraduate/ Bachelor
<b>10.</b>	<b>Year of Study and Semester (s)</b>	All year (all semesters)
<b>11.</b>	<b>Other Department(s) Involved in Teaching the Course</b>	None
<b>12.</b>	<b>Main Learning Language</b>	English and Arabic
<b>13.</b>	<b>Learning Types</b>	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online
<b>14.</b>	<b>Online Platforms(s)</b>	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams
<b>15.</b>	<b>Issuing Date</b>	12 November 2025
<b>16.</b>	<b>Revision Date</b>	12 November 2025

**17. Course Coordinator:**

Name: Ola Hassouneh	Contact hours:
Office number:	Phone number:
Email: o.hassouneh@ju.edu.jo.	

**18. Other Instructors:**



Name:

Office number:

Phone number:

Email:

Contact hours:

**19. Course Description:**

Students perform 11 experiments of 3-hours/week duration. These experiments are: Collection and Analysis of Data, Measurements and Uncertainties, Vectors: Force Table, Kinematics of Rectilinear Motion, Force and Motion, Collision in Two Dimensions, Rotational Motion, Simple Harmonic Motion: Simple Pendulum, The Behavior of Gases with Changes in Temperature and Pressure, The Falling Sphere Viscometer, Specific Heat Capacity of Metals.

**20. Program Intended Learning Outcomes:** (To be used in designing the matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program)

**SO1:** An ability to identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline.

**SO2:** An ability to formulate or design a system, process, procedure or program to meet desired needs.

**SO3:** An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions.

**SO4:** An ability to communicate effectively with a range of audiences.

**SO5:** An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.

**SO6:** An ability to function effectively in teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

**21. Course Intended Learning Outcomes:** (Upon completion of the course, the student will be able to achieve the following intended learning outcomes)

Students completing this course should:

**ILO1:** Understand that physics is an experimental science and that observation and experimentation are as important as concepts and theories.

**ILO2:** State the basic laws of physics in classical mechanics and thermal physics and identify how they can be applied in various contexts.



**ILO3:** Perform algebraic calculations and give quantitative predictions of outcomes in simple physical systems.

**ILO4:** Identify relevant physical concepts and formulate solutions to simple problems and to present the solutions in a clear manner.

**ILO5:** Perform simple physical experiments, using a variety of physics apparatus, including the gathering, interpretation and analysis of data.

Course ILOs	The learning levels to be achieved					
	Remembering	Understanding	Applying	Analysing	evaluating	Creating
1	✓	✓	✓	✓		
2		✓	✓	✓	✓	
3		✓	✓	✓	✓	
4		✓	✓	✓	✓	
5		✓	✓	✓	✓	

**22. The matrix linking the intended learning outcomes of the course with the intended learning outcomes of the program:**

Program SOs	SO (1)	SO (2)	SO (3)	SO (4)	SO (5)	SO (6)
Course ILOs	✓	✓	✓	✓	✓	✓
1	✓	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓	✓
4	✓	✓	✓	✓	✓	✓
5	✓	✓	✓	✓	✓	✓



## 23. Topic Outline and Schedule:

Week	Lecture	Topic	ILO/s Linked to the Topic	Learning Types (Face to Face/ Blended/ Fully Online)	Platform Used	Synchronous / Asynchronous Lecturing	Evaluation Methods	Learning Resources
1		Experimental Error	1- 5	Face to Face	منصة المستخدمة:	Synchronous	Lab Reports, Quiz, Midterm Exam, Final Exam	Lab Manual
2	6	Collection and Analysis of data	1- 5		Moodle, Lab Classrooms Microsoft Teams			
3	6	Measurements and uncertainty	1- 5					
4	6	Force table	1- 5					
5	6	Specific heat capacity	1- 5					
6	6	Force table	1- 5					
7	6	Specific heat capacity	1- 5					
8	3	Kinematics of rectilinear motion	1- 5					
9	3	Gas laws	1- 5					
10		collision	1- 5					
11		Simple pendulum	1- 5					



#### 24. Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	ILO/s Linked to the Evaluation activity	Period (Week)	Platform
Reports	30%	All	1-5		
Midterm Exam	20%	1-6	1-5		Computer-Based Exam
Quizzes	10%	All	1-5		
Final Exam	40%	All	1-5		Computer-Based Exam

#### 25. Course Requirements:

(e.g.: students should have a computer, internet connection, webcam, account on a specific software/platform...etc.):

Lab Manual, Textbook, computer, Internet access, Microsoft Teams

#### 26. Course Policies:

A- Attendance policies:

Students are expected to attend all classes. Absence should not exceed 15%.

B- Absences from exams and submitting assignments on time:

Exam makeups will be arranged for students with valid absence excuses.

C- Health and safety procedures:

Students are required to abide by all mandated health and safety procedures.

D- Honesty policy regarding cheating, plagiarism, misbehavior:

Cheating, plagiarism, and misbehavior will be dealt with according to the University regulations.

E- Grading policy:

Reports: 30%, Midterm Exam: 20%, Quizzes: 20%, and Final Exam: 40%.

F- Available university services that support achievement in the course:

Microsoft Teams, E-Learning platform, Moodle.

#### 27. References:

A- Required book(s), assigned reading and audio-visuals:

LABORATORY EXPERIMENTS: PHYSICS LAB- 111. [THE UNIVERSITY OF JORDAN, 2017](#)

B- Recommended books, materials, and media:

- Curated selection of journal articles, conference proceedings, and case studies.

#### 28. Additional information:



Not applicable

Name of the Instructor or the Course Coordinator: .....	Signature: .....	Date: .....
Name of the Head of Graduate Studies Committee/ Department .....	Signature: .....	Date: .....
Name of the Head of Department .....	Signature: .....	Date: .....
Name of the Head of Graduate Studies Committee/ School .....	Signature: .....	Date: .....
Name of the Dean or the Director .....	Signature: .....	Date: .....