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

1.	Course Title	Practical Physics I
2.	Course Number	0329111
3.	Credit Hours (Theory, Practical)	1
	Contact Hours (Theory, Practical)	(0, 3)
4.	Prerequisites/ Corequisites	Department Approval
5.	Program Title	B. S.C Degree in Physics
6.	Program Code	02
7.	School/ Center	School of Science
8.	Department	Physics
9.	Course Level	Undergradute/ Bachelor
10.	Year of Study and Semester (s)	All year (all semesters)
11.	Other Department(s) Involved in Teaching the Course	None
12.	Main Learning Language	English and Arabic
13.	Learning Types	☑Face to face learning ☐Blended ☐Fully online
14.	Online Platforms(s)	☑Moodle ☑Microsoft Teams
15.	Issuing Date	12 November 2025
16.	Revision Date	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 / Course ILOs	SO (1)	SO (2)	SO (3)	SO (4)	SO (5)	SO (6)
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	منصّة المستخدمة: Moodle, Lab Classrooms Microsoft Teams	Synchronous	Lab Reports, Quiz, Midterm Exam, Final Exam	Lab Manual
2	6	Collection and Analysis of data	1-5					
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:

LABOROTARY 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: ……..……