

Course E-Syllabus

1	Course title	General physics – lab
2	Course number	5501105
3	Credit hours	1
	Contact hours (theory, practical)	3 practical
4	Prerequisites/corequisites	5512101 or Concurrently
5	Program title	Coastal Environment
6	Program code	2
7	Awarding institution	The University of Jordan/Aqaba
8	School	Basic and marine sciences
9	Department	Coastal Environment
10	Level of course	1st year
11	Year of study and semester (s)	2020-2021 1st semester
12	Final Qualification	Bachelor Degree
13	Other department (s) involved in teaching the course	Marine biology
14	Language of Instruction	English
15	Teaching methodology	<input type="checkbox"/> Blended <input checked="" type="checkbox"/> Online
16	Electronic platform(s)	<input type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others experiments at lab
17	Date of production/revision	1/10/2020

18 Course Coordinator:

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19 Other instructors:

Name: Office number: Phone number: Email:
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٢٠ Course Description:

As stated in the approved study plan.

This lab consists of 12 experiments, collecting and analyzing data, measurement and precise, vectors, forces table, motion in one dimension, force and motion, Newton's laws, collisions in two dimensions, rotational motion, simple pendulum oscillation, gases' laws, viscosity parameter, and specific heat.

٢١ Course aims and outcomes:

A- Aims:

- Gain practical experience with concepts presented in your lecture section
- Gain familiarity with physical measurement equipment
- Present data and results in a clear and logical manner
- Analyze data and draw conclusions
- Describe and calculate uncertainty

B- Intended Learning Outcomes (ILOs):

Upon successful completion of this course, students will be able to:

- Use units, unit conversions and significant figures correctly in all experiments
- Learn how to collect and analyze data
- Learn how to use a vernier caliper and micrometer and then to compare errors
- Study Archimedes's principle
- Learn how to apply vectors in life by using a force table
- Study motion in one dimension through free fall experiment
- Study motion in two dimension through projectile motion experiment
- Apply Newton's second law
- Learn how to calculate the friction forces
- Study the conservation of linear momentum
- Study Hooke's law and then calculate the spring constant
- Learn what is simple harmonic motion by using a simple pendulum

۲۲. Topic Outline and Schedule:

Week	Topic	Teaching Methods*/platform	Evaluation Methods**	References
1	Experimental error and data analysis (theoretical introduction)	Online- Microsoft teams		Physics Manual: “Laboratory Experiments for physics lab - 1”, Eman Al-Absi, 2015, The University of Jordan, Aqaba.
2	Experiment 1: Collection and analysis of data	Online- Microsoft teams	Quiz	
3	Experiment 2: Measurements and uncertainties	At physics lab		
4	Experiment 3: Archimedes’s principle	At physics lab		
5	Experiment 4: Vectors: force table	At physics lab		
6	Experiment 6: Motion in one dimension: free fall	At physics lab		
7	Experiment 7: Motion in two dimension: projectile motion	Online- Microsoft teams	pre-lab quiz	
8	Experiment 8: Force and motion (Newton’s second law)	At physics lab		
9	Experiment 9: Friction force	At physics lab	Quiz	
10	Experiment 10: Conservation of linear momentum	Online- Microsoft teams		
11	Experiment 11: Hooke’s law	At physics lab	pre-lab quiz	
12	Experiment 12: Simple harmonic motion: simple pendulum	At physics lab		

- Teaching methods include: Synchronous lecturing/meeting; Asynchronous lecturing/meeting
- Evaluation methods include: Homework, Quiz, Exam, pre-lab quiz...etc

۲۳ Evaluation Methods:

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

Evaluation Activity	Mark	Topic(s)	Period (Week)	Platform
Reports	30		Every week	Online and at lab
Quizes	10			online
Midterm exam	20		8	online
Final exam	40		13	Depends on announcement

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

computer, internet connection.

¶ Course Policies:

A- Attendance policies:

As you will see below, attendance counts as a small portion of your final grade in this class. These are basically free points that I am offering as an incentive for you to learn the good habit of attending class. If you miss more than 2 lab sessions, you must drop the course, or receive an F.

B- Absences from exams and submitting assignments on time:

Failure to attend the lab on the day an assignment is given or due does not mean that you may turn it in late without penalty. You will take 0 for lab report and there will be no makeup quizzes, though your lowest quiz score for the semester will be dropped. If you miss a scheduled exam, then you will be given a 0 for that exam unless you give an acceptable excuse within three days.

C- Health and safety procedures:

Wear face mask, wash hands before entering the lab, and social distances are required

D- Honesty policy regarding cheating, plagiarism, misbehavior:

Cheating and plagiarism will not be tolerated at all. If any work you turn in is found not to be entirely your own, unless previously permitted, the work will not be accepted and no credit will be awarded for the work. A repeat offense will be considered for automatic failure. Cheating includes getting or giving unauthorized help for any class assignments, as well as "wondering eyes" – gazing at someone else's paper during a quiz or exam. Use of unauthorized notes during a test is also cheating. This calls attention to the use of some of the newer, high capacity alphanumeric memory calculators or of cell phones. If you use such a calculator, or any device of similar capability, activation of the alphanumeric memory in any form will be treated as cheating. Plagiarism is using material from any source, even the internet, without giving credit.

E- Grading policy:

- Reports: 30 marks
- Quizzes: 10 marks
- Midterm exam: 20 marks
- Final exam: 40 marks

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

You can use other references available in the library or web sites to improve your personal skills in understanding and doing experiments.

