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	2023/10/15
	Deans Council Approval Decision Number	265/2024/24/3/2
	The Date of the Deans Council Approval Decision	2024/1/23
	Number of Pages	06

1.	Course Title	EXPERIMENTAL GENERAL PHYSICS FOR LIFE SCIENCES
2.	Course Number	0329113
3.	Credit Hours (Theory, Practical)	0,3
	Contact Hours (Theory, Practical)	0,3
4.	Prerequisites/ Corequisites	
5.	Program Title	Bachelor in Agriculture
6.	Program Code	
7.	School/ Center	Science
8.	Department	Physics
9.	Course Level	100 level
10.	Year of Study and Semester (s)	2025 – 2026 , Fall semester
11.	Program Degree	Bsc
12.	Other Department(s) Involved in Teaching the Course	
13.	Learning Language	English
14.	Learning Types	x☐Face to face learning ☐Blended ☐Fully online
15.	Online Platforms(s)	x☐Moodle x☐Microsoft Teams
16	Issuing Date	25/11/2025
17.	Revision Date	25/11/2025

18. Course Coordinator:

Name: Riad Shaltaf	Contact hours:
Office number:	Phone number:
Email:	

19. Other Instructors:

Name:
Office number:
Phone number:
Email:
Contact hours:
Name:
Office number:
Phone number:
Email:
Contact hours:

20. Course Description:

As stated in the approved study plan.

21. 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)

PILO (1) Master professionally a broad set of knowledge concerning the fundamentals in the basic areas of physics: Classical Mechanics, Electrostatics and Magnetism, Quantum Mechanics, Thermal Physics, Optics, Theory of Special Relativity, Mathematical Physics, Electronics.

PILO (2) Apply knowledge of mathematics and fundamental concepts in the basic areas of physics to identify and solve physics related problems.

PILO (3) Utilize computers and available software in both data collections and data analysis.

PILO (4) Utilize standard laboratory equipment, modern instrumentation, and classical techniques to design and conduct experiments as well as to analyze and interpret data.

PILO (5) Develop a recognition of the need and ability to engage in life-long learning.

PILO (6) Demonstrate ability to use techniques, skills, and modern scientific tools necessary for professional practice.

PILO (7) Communicate clearly and effectively in both written and oral forms.

PILO (8) Apply proficiently team-work skills and employ team-based learning strategies.

PILO (9) Apply professional and ethical responsibility to society.

PILO's	*National Qualifications Framework Descriptors*		
	Competency (C)	Skills (B)	Knowledge (A)
1.	☒	☐	☒
2.	☐	☒	☐
3.	☐	☒	☒
4.	☐	☒	☒
5.	☐	☒	☐
6.	☐	☒	☐
7.	☐	☒	☒
8.	☐	☒	☐
9.	☒	☐	☐

* Choose only one descriptor for each learning outcome of the program, whether knowledge, skill, or competency.

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

CLO 1: Analyze experimental data and estimate uncertainties.

CLO 2: Apply vector methods to determine resultant forces.

CLO 3: Verify fundamental physical laws including Newton's second law, Ohm's law, and Boyle's law.

CLO 4: Analyze simple harmonic motion in a pendulum system.

CLO 5: Measure unknown electrical quantities using bridge and potentiometer techniques.

CLO 6: Establish the equivalence between mechanical and thermal energy.

Course ILOs #	The learning levels to be achieved						Competencies
	Remember	Understand	Apply	Analyse	Evaluate	Create	
1.	x	x	x	x	x		
2.			x	x	x		
3.		x		x			
4.		x		x			

5.		x	x	x			
6		x	x	x			

23. The matrix linking the intended learning outcomes of the course -CLO's with the intended learning outcomes of the program -PILOs:

PILO's * / CLO's	1	2	3	4	5	Descriptors**		
						A	B	C
1	X			X				
2	X			X				
3	X			X				
4	X			X				
5	X			X				
6	X			X				
7								
8								

***Linking each course learning outcome (CLO) to only one program outcome (PLO) as specified in the course matrix.**

****Descriptors are determined according to the program learning outcome (PLO) that was chosen and according to what was specified in the program learning outcomes matrix in clause (21).**

24. 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		Collection & Analysis of Data	1					
2		Measurements & Uncertainties	1					
3		Vectors	2					
4		Simple Pendulum	4		eLearning	S		Videos on eLearning
5		Motion In One Dimension	3				Reports Student	Lab manual
6		The Laws Of Gases	3				Midterm and Final exams	
7		Joule Heat	6					
8		Measurement of Resistance Ohm's Law	5					
9		Measurement of Resistance Wheatstone Bridge	5					
10		Potentiometer	5	F				

25. Evaluation Methods:

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

Evaluation Activity	*Mark wt.	CILO's					
		1	2	3	4	5	6
First Exam	20	x	x	x	x		
Second Exam –If any							
Final Exam	40	x	x	x	x	x	x
**Class work							
Projects/reports	40	X	X	X	X	X	x
Research working papers							
Field visits							
Practical and clinical							
Performance Completion file							
Presentation/ exhibition							
Any other approved works							
Total 100%							

*** According to the instructions for granting a Bachelor's degree.**

****According to the principles of organizing semester work, tests, examinations, and grades for the bachelor's degree.**

Mid-term exam specifications table*

No. of questions/ cognitive level				CILO/	

Create **%10**	Evaluate **%10**	analyse **%10**	Apply %20	Understand **%20**	Remember %30	**No. of questions per CLO**	**Total exam mark**	**Total no. of questions**	**Weight**	**CILO no.**
1	1	1	4	2	1	10	100	100	10%	1

Final exam specifications table

No. of questions/ cognitive level						**No. of questions per CLO**	**Total exam mark**	**Total no. of questions**	**CILO Weight**	**CILO no.**
Create **%10**	Evaluate **%10**	analyse **%10**	Apply %20	Understand **%20**	Remember %30					
										1
										2
										3
										4
										5

26. Course Requirements:

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

27. Course Policies:

A- Attendance policies: B- Absences from exams and submitting assignments on time: C- Health and safety procedures: D- Honesty policy regarding cheating, plagiarism, misbehavior: E- Grading policy: F- Available university services that support achievement in the course:

28. References:

A- Required book(s), assigned reading and audio-visuals: B- Recommended books, materials, and media:

29. Additional information:

Name of the Instructor or the Course Coordinator: ……	Signature: ……..……	Date: ……..……
Name of the Head of Quality Assurance Committee/ Department ……	Signature: ……..……	Date: ……..……
Name of the Head of Department ……	Signature: ……..……	Date: ……..……
Name of the Head of Quality Assurance Committee/ School or Center ……	Signature: ……..……	Date: ……..……
Name of the Dean or the Director ……	Signature: ……..……	Date: ……..……