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**	Electronics Lab
2.	**Course Number**	0302312
3.	**Credit Hours (Theory, Practical)**	1 Practical
	Contact Hours (Theory, Practical)	3 Practical
4.	**Prerequisites/ Corequisites**	Electronics
5.	**Program Title**	Physics
6.	**Program Code**	
7.	**School/ Center**	Science
8.	**Department**	Physics
9.	**Course Level**	2nd year
10.	**Year of Study and Semester (s)**	2024/2025
11.	**Program Degree**	BSc.
12.	**Other Department(s) Involved in Teaching the Course**	
13.	**Learning Language**	
14.	**Learning Types**	☑Face to face learning ☐Blended ☐Fully online
15.	**Online Platforms(s)**	☐Moodle ☐Microsoft Teams
16	**Issuing Date**	May 2025
17.	**Revision Date**	May 2025

18. Course Coordinator:

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19. Other Instructors:

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

20. Course Description:

This lab consists of 10 different experiments that cover the basics of analogue electronics.
The students are supposed to apply the theoretical part that they studied in their electronics course.
The experiments are carefully designed to guide the students through the different aspects of first-time electronics students. The Lab starts with an introduction on using the different measurement tools (voltmeters, ammeters, multi-meters, function generators, oscilloscope and bread boards), pn-junctions, all the way up to op-amp circuits.

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)

Students graduating with a bachelor's degree in physics are expected to be able to:

SO1: 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: Formulate or design a system, process, procedure or program to meet desired needs

SO3: Develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions

SO4: Communicate effectively with a range of audiences in oral or written forms and exhibit ethical and professional values.

SO5: Reflect the impact of technical and/or scientific solutions in economic, environmental, and societal contexts.

SO6: Function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

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

* 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)

1) Identify the different electronics components.

2) Identify and use the different measuring tools in the lab.
3) Use bread boards to build simple circuits.
4) Build basic circuits and measure their relevant variables.
5) Relate the theoretical part learned in the electronics course with the lab.
6) Design simple electronics circuits.

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

6.					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	6	Descriptors**		
							A	B	C
1	X		X						
2	X	X	X						
3	X	X	X						
4			X						
5	X								
6			X			x			

***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	1.1							
	1.2							
	1.3							
2	2.1							
	2.2							

	2.3							
3	3.1							
	3.2							
	3.3							
4	4.1							
	4.2							
	4.3							
5	5.1							
	5.2							
	5.3							
6	6.1							
	6.2							
	6.3							
7	7.1							
	7.2							
	7.3							
8	8.1							
	8.2							
	8.3							
9	9.1							
	9.2							
	9.3							
10	10.1							
	10.2							
	10.3							
11	11.1							
	11.2							
	11.3							
12	12.1							
	12.2							
	12.3							
13	13.1							
	13.2							
	13.3							
14	14.1							
	14.2							
	14.3							
15	15.1							
	15.2							
	15.3							

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							
Second Exam –If any							
Final Exam	40%						
**Class work	20%						
Projects/reports	40%						
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						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	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: no more than two lab sessions can be missed under any circumstances.

The students are supposed to be on time to each lab session and will not be admitted after 20 minutes from the starting time.

B- Absences from exams and handing in assignments on time: Assignment are only taken if submitted on time and no make ups for short quizzes.

C- Health and safety procedures: The lab is prepared such that it does not pose any hazards to the students or the instructors. Continuous monitoring during lab sessions and continuous reminding of all safety issues are addressed at the beginning of each lab session.

D- Honesty policy regarding cheating, plagiarism, misbehavior: any act of cheating or plagiarism is not tolerated, and the students are clearly required to submit their own work

E- Grading policy: The grading for this lab is divided into 40 % lab report and discussions, 20% short quizzes, 40% final exam

F- Available university services that support achievement in the course: a proper library and very well-furnished lab.

28. References:

A- Required book(s), assigned reading and audio-visuals: Electronics lab manual and Electronic Devices by Tomas Floyed Textbook. B- Recommended books, materials, and media: Internet resources, Youtube, and Wikipedia

29. Additional information:

Name of the Instructor or the Course Coordinator: ……Bashar Lahlouh ……	Signature: ……..……	Date: May 2025…
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: ……..……