Course Specification
(Bachelor)

Course Title:	Project
Course Code:	PHYS0405
Program:	Bsc Physics & Bsc Renewable Energy and Environment
Department:	Physics
College:	Science
Institution:	Majmaah University
Version:	1
Last Revision Date:	30/12/2024 *Pick Revision Date.*

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A. General information about the course:

1. Course Identification

1. Credit hours: (2)					
2. Course type					
A.	☒ University	☐College	☐ Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (7th level / 4th year)					
4. Course General Description:					
This course is a graduation project that students should present at the end of the course according to their specialty track in the specified field (practical or theoretical). At its issue, the students should be able to write and present (project report) within a full description of aims, methods, results and analyses techniques used in the project and discuss it in front of a general audience.					
5. Pre-requirements for this course (if any):					
PHYS 0351					
6. Co-requisites for this course (if any):					
None					
7. Course Main Objective(s):					
1. Providing students with the skills for writing a completed research report which contains a full description of aims methods, results and analyses techniques used in the project. 2. Give the opportunity for students to work in groups under department staff close supervision. 3. Develop critical-thinking skills by discussing and critically evaluating various topics in theoretical and experimental physics. 4. Learn basic research methods and develop knowledge and skills in computers, information technology and communication.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100 %
2	E-learning		
3	Hybrid		

No	Mode of Instruction	Contact Hours	Percentage
	• Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	
2.	**Laboratory/Studio**	
3.	**Field**	
4.	**Tutorial**	60
5.	**Others (specify)**	
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Understand the importance of physics laws and its limitations, their inherent relation and mathematical formulation	**k1**	Lecture Exercises Quizzes Problem solving	Exams Quizzes Homework Assignments
1.2	Using appropriate mathematical tools of physics for Experiment setup / modeling and simulations	**k3**	Lecture Exercises Quizzes Problem-solving	Exams Quizzes Homework Assignments
1.3				
2.0	**Skills**			
2.1	Data Analyze errors and discuss the	**S1**	Oral quizzes	Homework Oral problems

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	results. and result using various theoretical and/or experimental methods.		Class discussion Exercises Quizzes Problem solving	
2.2	Present the research work/ Project (thesis) to the audience	**S3**	Oral quizzes Class discussion Exercises Quizzes Problem solving	Homework Oral problems
...				
3.0	**Values, autonomy, and responsibility**			
3.1	The ability to collect data and Literature survey use of Endnote	**V1**	1. Give time bound task. 2. Group Presentation 3. Group assignments	Observation Group discussion Group Report e-learning quizzes
3.2	The ability to write research reports and present.	**V3**	1. Give time-bound task. 2. Group Presentation 3. Group assignments	Observation Group discussion Group Report e-learning quizzes

C. Course Content

No	List of Topics	Contact Hours
1.	Assigning Supervisors and the main project topic	8
2.	Collect materials and first readings (Literature, Web-based and **Introduction**)	12
3.	**Methodology**	8
4.	Performing the project work steps (i.e. measurements, computations…etc. and **Results**)	8
5.	**Discussion**	14
6.	Preparing the poster and **Final Report**	10

7.	General Revision and preparation for the evaluation week **(Final Presentation and Oral Discussions).**	10
Total		**60**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	**Bibliography, collecting informations, and materials …etc**	**1st -3rd**	**10 %**
2.	**Performing the project work steps (i.e. measurements, computations…etc. and Results then its discussions, conclusions)**	**4th -9th**	**30 %**
3.	**Writing the report**	**10th -14th**	**20 %**
4.	**Report discussion in front of audience**	**15th**	**40 %**

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	References are selected according to the subject of the project (specified by the supervisor).
Supportive References	References are selected according to the subject of the project (specified by the supervisor).
Electronic Materials	It depends on nature of project subject
Other Learning Materials	It depends on nature of project subject

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	It depends on nature of project subject
Technology equipment (projector, smart board, software)	It depends on nature of project subject
Other equipment (depending on the nature of the specialty)	It depends on nature of project subject

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching		
Effectiveness of Students assessment		
Quality of learning resources		
The extent to which CLOs have been achieved		
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**PHYSICS DEPARTMENT COUNCIL**
REFERENCE NO.	**16**
DATE	**30/12/2024**