Physic Program

(New)

Program Specification

(Bachelor)

Program:	**Bachelor of Science in Physics**
Program Code (as per Saudi university ranking):	**05330101**
Qualification Level:	level 6
Department:	Physics
College:	College of Science
Institution:	Majmaah University
Program Specification:	New ☐ updated* ☒
Last Review Date:	2025

*Attach the previous version of the Program Specification.

Table of Contents

A. Program Identification and General Information

1. Program's Main Location :

Al Zulfi Campus

2. Branches Offering the Program (if any):

na

3. Partnerships with other parties (if any) and the nature of each:

na

4. Professions/jobs for which students are qualified

1- Continue higher education in physics leading to M.Sc. or PhD.
2- Work in research centers and universities.
3- Work in public and private sectors of education.
4- Work in medical laboratories, running machines, recycling its wastes.
5- Work in industrial sectors.
6- Work in Electric power stations.
7- Work at water stations and petroleum ministry, and geology.
8- Work as a research assistant in king Abdul-Aziz city for science and technology.
9- Work in specialized research centers, quality control labs. and standards and measurements bureau.
10- Work in difference industry/Army

5. Relevant occupational/ Professional sectors:

1. **Industrial sectors especially in Renewable Energy or Environment or Material Technologies.**
2. **Electric power stations.**
3. **The field of energy management and energy audit.**
4. **Water stations and petroleum industries.**
5. **Specialized research centers, quality control labs, instrumentation industries.**
6. **National Energy Services Company, King Abdullah City for Atomic and Renewable Energy, Saudi Standards, Metrology, and Quality Organization, etc.**
7. **Higher education in Physics, Renewable Energy or Environment leading to a M.Sc. or PhD.**
8. **Research centers and universities.**
9. **Public and private sectors of education.**
10. **Medical laboratories, running machines, recycling its wastes**

6. Major Tracks/Pathways (if any):

Major track/pathway	Credit hours (For each track)	Professions/jobs (For each track)
1. na		
2.		
3.		
...		

7. Exit Points/Awarded Degree (if any):

exit points/awarded degree	Credit hours	
1. **Associate Diploma- at the end of the second year**	**70 CrH**	must be student pass for Diploma graduation requirement plus Field Training

8. Total credit hours: (140)

Physics Program Structure (Physics Track)	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	2	4	2.9
	Elective	4	8	5.7
College Requirements	Required	6	18	12.9
	Elective	0	0	0.0
Program Requirements	Required	30	93	66.4
	Elective	4	12	8.6
Capstone Course/Project	Required	1	2	1.4
Field Training/ Internship	Required	1	3	2.1
Residency year				
Others				
Total		48	140	100

B. Mission, Objectives, and Program Learning Outcomes

1. Program Mission:

The physic program prepares graduates with high skills in fundamental concepts, knowledge, and laboratory/field techniques. These skills applying to conduct world-class research in all areas of physics, and contribute to community services and industry in sustainable energy and environment

a) The mission of the **Institution/College.**

University mission Keywords / College mission Keywords		University Mission: The mission of Majmaah University is to offer educational programs with high quality as well as funding all types of research projects and social initiatives that contribute in achieving the sustainable development. We also committed to instill the concept of patriotism and educate students about the culture and heritage of the country.				
		Education high quality	High Research project services	Contribute in achieving sustainable development	Concept of patriotism	Heritage of the country
College Mission: Qualify national cadres capable	Qualify national cadres	✓	✓	✓	✓	✓

	competing in the labor market		✓	✓		
	meeting the requirements of sustainable development	✓	✓	✓		✓
	scientific research		✓		✓	
	community service				✓	✓

b) The mission of the **College/ Program.**

Program Mission Keywords / fundamental concepts in		College Mission **Qualify national cadres capable of competing in the labor market; meeting the requirements of sustainable development; and contributing to scientific research and community service.**				
		Qualify national cadres	competing in the labor market	meeting the requirements of sustainable development	scientific research	community service
ates with high ental concepts, laboratory/field These skills luct world-class reas of physics, to community	fundamental concepts in knowledge	✓	✓	✓	✓	
	fundamental concepts in laboratory/field techniques	✓	✓			✓

	conduct world-class research			✓	✓	
	contribute to community services		✓	✓	✓	✓
	contribute to industry in sustainable energy and environment.	✓	✓		✓	✓

c) The mission of the **program/ Goals.**

Program Mission						
The physic program prepares graduates with high skills in fundamental concepts, knowledge, and laboratory/field techniques. These skills applying to conduct world-class research in all areas of physics, and contribute to community services and industry in sustainable energy and environment						
Program Mission / Program Objectives		fundamental concepts in knowledge	fundamental concepts in laboratory/field techniques	conduct world-class research	contribute to community services	contribute to industry in sustainable energy and environment .
Program Objectives	1. **Foundational and Advanced Scientific Knowledge** To provide students with a solid grounding in fundamental physics principles and exposure to advanced scientific concepts.	✓	✓			

	2. **Analytical, Problem-Solving, and Research Skills** To develop students' analytical capabilities, creative problem-solving skills, and fundamental techniques in scientific research.	✓		✓	✓	✓
	3. **Career and Postgraduate Readiness** To effectively prepare graduates for the professional labor market and for pursuing advanced postgraduate studies in physics and related fields.	✓	✓	✓	✓	✓
	4. **Professionalism, Ethics, and Social Responsibility** To cultivate professional ethics, core values, teamwork skills, and a commitment to community service	✓	✓			✓

2. Program Goals:

- **Foundational and Advanced Scientific Knowledge** To provide students with a solid grounding in fundamental physics principles and exposure to advanced scientific concepts.
- **Analytical, Problem-Solving, and Research Skills** To develop students' analytical capabilities, creative problem-solving skills, and fundamental techniques in scientific research.
- **Career and Postgraduate Readiness** To effectively prepare graduates for the professional labor market and for pursuing advanced postgraduate studies in physics and related fields.
- **Professionalism, Ethics, and Social Responsibility** To cultivate professional ethics, core values, teamwork skills, and a commitment to community service

3. Program Learning Outcomes*

Knowledge and Understanding	
K1	Demonstrate a deep understanding of fundamental physical principles, including classical mechanics, thermodynamics, electromagnetism, optics, quantum mechanics, modern physics, Nuclear Physics, and renewable energy, etc…….
K2	Mention the importance of modern scientific theories and techniques in physics, their inherent relationship, and their mathematical formulation
K3	Identify the scientific method to investigate physical phenomena.
Skills	
S1	Apply advanced mathematical and practical skills in physics to analyze, evaluate and interpret scientific and laboratory data to solve physics problems for sustainable use of energy and materials.
S2	Apply the theories and principles of physics in solving and analyzing problems, formulating hypotheses, and designing and conducting experiments, related to physical phenomena and relating fields
S3	Communicate and work effectively in groups as well as individually to develop professional skills, such as research proposal writing, grant applications, and scientific presentations.
S4	Employing digital technologies with optimal efficiency to develop physics problem-solving skills.
Values, Autonomy, and Responsibility	
V1	Be aware of professional and ethical responsibilities
V2	Enhancing a sense of community and belonging by striving to achieve excellence in teaching and performance-based research
V3	Establishing effective partnerships with all relevant segments of society.

* Add a table for each track or exit Point (if any)

C. Curriculum

1. Curriculum Structure

Physics Program Structure (Physics Track)	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	2	4	2.9
	Elective	4	8	5.7
College Requirements	Required	6	18	12.9
	Elective	0	0	0.0
Program Requirements	Required	30	93	66.4
	Elective	4	12	8.6
Capstone Course/Project	Required	1	2	1.4
Field Training/ Internship	Required	1	3	2.1
Residency year				
Others				
Total		48	140	100

* Add a separate table for each track (if any).

2. Program Courses

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 1	ENGL 0110	English Skills	Required	----------	3	English Dep.
	PHYS 0101	General Physics 1	Required	----------	3	Physics Dep.
	MATH 0111	Mathematical Basis	Required	----------	3	Mathematics Dep.
	MATH 0113	Calculus	Required	----------	3	Mathematics Dep.
	PHYS 0121	Electricity and Magnetism 1	Required	----------	4	Physics Dep.
	PLS 100	University Required	Required	----------	2	University
Level 2	ENGL 0120	Scientific English	Required	ENGS0101	3	Physics Dep.
	CHM 0101	General Chemistry 1	Required	----------	3	Chemistry Dep.
	BIO 0101	General Biology	Required	----------	3	Biology Dep.
	PHYS 0171	Mathematical Physics 1	Required	MATH0113	3	Physics Dep.
	PHYS 0111	Classical Mechanics 1	Required	PHYS 0121	4	Physics Dep.
	PCLO 100	University Required	Required	----------	2	University
Level 3	PHYS 0231	Waves and vibrations	Required	PHYS 0111	3	Physics Dep.
	PHYS 0222	Electricity and Magnetism 2	Required	PHYS 0121	4	Physics Dep.
	PHYS 0202	General Physics 2	Required	PHYS 101	4	Physics Dep.
	PHYS 0261	Renewable Energy 1	Required	PHYS 0171	3	Physics Dep.
	PHYS 0203	Metrology and Data Analysis	Required	PHYS 0101	2	Physics Dep.
	----- -----	University Elective	Required	----------	2	University
Level 4	PHYS 0262	Thermodynamics	Required	PHYS 0202	3	Physics Dep.
	PHYS 0272	Differential Equations in Physics	Required	PHYS 0202	3	Physics Dep.
	PHYS 0204	Environmental Physics	Required	PHYS 0202	3	Physics Dep.
	PHYS 0241	Modern Physics	Required	PHYS 0222	3	Physics Dep.
	PHYS 0273	Mathematical Physics 2	Required	PHYS 0171	3	Physics Dep.
	PHYS 0223	Physics of Circuits Analysis	Required	PHYS 0222	3	Physics Dep.
Level 5	PHYS 0312	Classical Mechanics 2	Required	PHYS 0111	3	Physics Dep.
	PHYS 0324	Electromagnetism	Required	PHYS 0222	3	Physics Dep.
	PHYS 0332	Physical Optics	Required	PHYS 0231	4	Physics Dep.
	PHYS 0342	Quantum Mechanics 1	Required	PHYS 0241	3	Physics Dep.
	PHYS 0363	Statistical Physics	Required	PHYS 0261	3	Physics Dep.
	----- --	University Required	Elective	----------	2	University

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 6	PHYS 0313	Physics of Fluids	Required	PHYS 0312	3	Physics Dep.
	PHYS 0374	AI in Physics	Required	PHYS 0312	3	Physics Dep.
	PHYS 0351	Nuclear Physics 1	Required	PHYS 0241	3	Physics Dep.
	PHYS 0381	Solid State Physics 1	Required	PHYS 0342	3	Physics Dep.
	PHYS 0325	Physics of Electronics	Required	PHYS 0223	4	Physics Dep.
Level 7	PHYS -----	Department Elective 1	Required	----------	3	Physics Dep.
	PHYS 0426	Physics of Electronics 2	Required	PHYS 0325	3	Physics Dep.
	PHYS 0443	Atomic and Molecular Physics	Required	PHYS 0342	3	Physics Dep.
	PHYS 0444	Quantum Mechanics 2	Required	PHYS 0342	3	Physics Dep.
	PHYS 0482	Solid State Physics Lab	Required	PHYS 0381	2	Physics Dep.
	PHYS 0452	Nuclear Physics Lab	Required	PHYS 0351	2	Physics Dep.
	PHYS 0405	Project	Required	PHYS 0351	2	Physics Dep.
Level 8	PHYS -----	Department Elective 2	Elective	----------	3	Physics Dep.
	PHYS -----	Department Elective 3	Elective	----------	3	Physics Dep.
	PHYS -----	Department Elective 4	Elective	----------	3	Physics Dep.
	PHYS 0406	Field Training	Required	PHYS 0405	3	
	---	University Required	Elective	----------	2	University
	---	University Required	Elective	----------	2	University
Elective Courses Elective Courses	PHYS 0407	Medical Physics	Elective	PHYS 0351	3	Physics Dep.
	PHYS 0414	Introduction to Astronomy	Elective	PHYS 0312	3	Physics Dep.
	PHYS 0415	Analytical Mechanics	Elective	PHYS 0312	3	Physics Dep.
	PHYS 0433	Fiber Optics	Elective	PHYS 0332	3	Physics Dep.
	PHYS 0445	Laser Physics	Elective	PHYS 0443	3	Physics Dep.
	PHYS 0446	Plasma Physics	Elective	PHYS 0443	3	Physics Dep.
	PHYS 0453	Nuclear Physics 2	Elective	PHYS 0351	3	Physics Dep.
	PHYS 0454	Nuclear Reactors	Elective	PHYS 0351	3	Physics Dep.
	PHYS 0464	Heat and Mass Transfer	Elective	PHYS 0313	3	Physics Dep.
	PHYS 0475	Computational Physics	Elective	PHYS 0474	3	Physics Dep.
	PHYS 0483	Solid State Physics 2	Elective	PHYS 0381	3	Physics Dep.
	PHYS 0484	Semiconductors	Elective	PHYS 0381	3	Physics Dep.
	PHYS 0485	Materials Science	Elective	PHYS 0381	3	Physics Dep.
	PHYS 0486	Nanomaterials	Elective	PHYS 0381	3	Physics Dep.

* Include additional levels (for three semesters option or if needed).
** Add a table for the courses of each track (if any)

3. Course Specifications:

Insert hyperlink for all course specifications using NCAAA template (T-104)

New Study Plan الخطة الدراسية الجديدة

4. Program learning Outcomes Mapping Matrix:

Align the program learning outcomes with program courses' according to the following desired performance levels *(I = Introduced & P = Practiced & M = Mastered).*

	Course code & No.	Program Learning Outcomes									
		Knowledge and understanding			Skills				Values, Autonomy, and Responsibility		
		K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
Level 1	ENGL 0110	1		1			I		I	1	I
	PHYS 0101	I	I			I		I		I	
	MATH 0111		I	I		I				I	
	MATH 0113		I	I		I				I	
	PHYS 0121	I	I			I		I		I	
	PLS 100	1		1					1	1	1
Level 2	ENGL 0120	1	1						I	1	I
	CHM 0101	I		I			I			I	
	BIO 0101	I	I				I			I	
	PHYS 0171		I			I		I	I		
	PHYS 0111	I		I	I	I					I
	PCLO 100	1							1	1	1
Level 3	PHYS 0231	I	I			I		I		I	
	PHYS 0222		P		I	P			P		
	PHYS 0202	P		P	P	P					P
	PHYS 0261		P			P		P		P	
	PHYS 0203	P		P	P		P				P
Level 4	PHYS 0262	P		P	P			P	P		
	PHYS 0272	P	P			P				P	
	PHYS 0204	P				P	P				P
	PHYS 0241	P		P		P	P		P		
	PHYS 0273		P			P		P	P		
	PHYS 0223	P			P		P				P
Level 5	PHYS 0312		P	P		P	P			P	
	PHYS 0324	P				P		P	P		
	PHYS 0332	P		P	P	P					P

	Course code & No.	Program Learning Outcomes									
		Knowledge and understanding			Skills				Values, Autonomy, and Responsibility		
		K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
	PHYS 0342		P			P		P	P		
	PHYS 0363		P			P	P			P	
	----- --										
Level 6	PHYS 0313	P	P			P					P
	PHYS 0374		P		P	P		P			P
	PHYS 0351	P		P		P	P		P		
	PHYS 0381	P				P		P		P	
	PHYS 0325	P		P	P		P			P	
Level 7	PHYS -----										
	PHYS 0426		M		M	M			M		
	PHYS 0443	M				M		M		M	
	PHYS 0444		M	M		M		M		M	
	PHYS 0482	M			M		M		M		
	PHYS 0452	M			M		M		M		
	PHYS 0405			M	M		M		M		M
Level 8	PHYS -----										
	PHYS -----										
	PHYS -----										
	PHYS 0406		M	M	M			M	M		M

Elective Courses Elective Courses	PHYS 0407	M			M		M		M		
	PHYS 0414	M	M				M			M	
	PHYS 0415	M				M		M			M
	PHYS 0433		M	M		M	M			M	
	PHYS 0445	M				M	M		M		
	PHYS 0446		M		M			M			M
	PHYS 0453		M			M		M			M
	PHYS 0454			M		M		M			M
	PHYS 0464		M		M		M			M	
	PHYS 0475			M		M		M			M
	PHYS 0483		M		M			M		M	
	PHYS 0484		M	M				M			M
	PHYS 0485	M			M		M			M	
	PHYS 0486		M		M			M		M	

* Add a separate table for each track (if any).

5. Teaching and learning strategies applied to achieve program learning outcomes.

Describe teaching and learning strategies and curricular and extra-curricular activities adopted to achieve the Program's learning outcomes in all areas.

program learning outcomes			
	PLO Code	curricular activities,	extra-curricular activities
Knowledge	K1	Reports, discussions, presentations, Standardized exams, Seminars, and Assignments.	Surveys Visiting Scientific and Factory
	K2		
	K3		
Skills	S1	Standardized exams, small projects, Reports, presentations, Assignments, Solved problems, and Lab. reports.	Surveys
	S2		
	S3		
	S4		
Values	V1	Workshops, work with social	Sharing for Public works
	V2		
	V3		

Measurable Objectives	Measurable Performance Indicators	Major Strategies
1. **Foundational and Advanced Scientific Knowledge** To provide students with a solid grounding in fundamental physics principles and exposure to advanced scientific concepts.	1. Exam results 2. Reports 3. Assignments 4. Surveys	1.Lectures 2. Presentations 3.Group work 4. Discussions
2. **Analytical, Problem-Solving, and Research Skills** To develop students' analytical capabilities, creative problem-solving skills, and fundamental techniques in scientific research.	1 – Following laboratory safety procedures in Labs. 2 - Development and implementation of logical experimental procedures 3 - The analysis and interpretations of data using appropriate theory 4 - Demonstrating effective problem solving techniques 5 - Mathematical Procedures	1 – Laboratory practices 2 - Lectures 3 – Solving Problems 4– Assignments
3. **Career and Postgraduate Readiness** To effectively prepare graduates for the professional labor market and for pursuing advanced	1 - The ability to use software tools to collect required topics 2 - Presentations	1 – Practical work 2 - Assignments – Training

postgraduate studies in physics and related fields.	3 – Ability to write reports 4 - Literature Surveys	
4. **Professionalism, Ethics, and Social Responsibility** To cultivate professional ethics, core values, teamwork skills, and a commitment to community service	• Exam results • Reports • Assignments • Surveys	• Lectures • Presentations • Group work • Discussions • Scientific visits

6. Assessment Methods for program learning outcomes.

Describe assessment methods (Direct and Indirect) that can be used to measure the achievement of program learning outcomes in all areas.

The Program should devise a plan for assessing Program Learning Outcomes (all learning outcomes should be assessed at least twice in the bachelor program's cycle and once in other degrees).

	PLO Code	Direct Assessment	Indirect Assessment
Knowledge	K1	Reports, discussions, presentations, Standardized exams, Seminars, and Assignments.	Surveys Visiting Scientific and Factory
	K2		
	K3		
Skills	S1	Standardized exams, small projects, Reports, presentations, Assignments, Solved problems, Discussion, and Lab. reports.	Surveys
	S2		
	S3		
	S4		
Values	V1	Workshops, work with social	Sharing for Public works
	V2		
	V3		

For theoretical Courses:

	Assessment task	Week Due	Proportion of Total Assessment
	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	First exam*	6-7	15%

2	Second exam*	11-12	15%
3	E-exam	13	30%
4	Small Project	One/ semester	
5	Homework	Every week	
6	Quizzes	End topics	
7	Discussions	Every week	
8	Final exam*	At the end	40%

For Laboratory Courses:

	Assessment task	Week Due	Proportion of Total Assessment
	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Mid exam*	7-8	20%
3	Lab. Report	13	40%
4	Small Project	One/ semester	
5	Observation	Every week	
8	Final exam*	At the end	40%

D. Student Admission and Support:

1. Student Admission Requirements

- ✓ The Executive Principles of Majmaah University
- ✓ Approved by the decree of the university council, on its sixth session, held on 1/3/1342 H
- ✓ Requirements of Admission
- ✓ He should have obtained a general high school certificate or its equivalent from within or without the Kingdom of Saudi Arabia.

- ✓
- ✓ His high school certificate or its equivalent should not be older than five years. The University Council may make some exceptions if convincing reasons are provided.
- ✓ He should be of a good conduct.
- ✓ He should successfully pass any test or interview assigned by the University Council.
- ✓ He should be medically fit.
- ✓ He should provide a permission for study from his reference, if he works in government or private sector.
- ✓ He should satisfy any other conditions the University Council determines, announced during application.
- ✓ He should not be dismissed from any other university for disciplinary or academic reasons. If that became clear after his, his acceptance shall be deemed cancelled from the day of his admission.
- ✓ A student dismissed from the university for academic reasons may be enrolled in some programs that do not award a Bachelor Degree, as
- ✓ decided by the University Council, or whoever it delegates. This shall not be allowed for the transitional program.
- ✓ Those who already had obtained a bachelor's degree, or its equivalent shall not be admitted to obtain another Bachelor degree. The University Rector has the right for exceptions.
- ✓ A student registered for another university degree or below, shall not be admitted, either in the selfsame university or another

2. Guidance and Orientation Programs for New Students

(Include only the exceptional needs offered to the students of the Program that differ from those provided at the institutional level).

The Vice Dean of Student Affairs is considered the first and most important service center for the College male & female students. The Vice Dean is providing its services through the Student Activities, Student Fund and full supervision & follow-up of these services so that the students can live in campus environment that suits their aspirations helping them to progress and succeed in their university.

1- The committees for student's orientation in any department.
2 - The meeting with new students

3. Student Counseling Services

(Academic, professional, psychological, and social)
(Include only the exceptional needs offered to the students of the Program that differ from those provided at the institutional level).

Sponsored by the Vice Dean of Student Affairs

1- The committees for academic advisor in the departments by faculty members in the male and female sections.
2- Assign an academic supervisor for each student with a maximum of 10 students for each faculty member if possible.
3- Announce the office hours for each faculty member to be part of the academic supervision and scientific help.
5. Provide counselling to the students.
5- Awareness of academic difficulties and study skills

6. Follow-up students who are struggling to study and help them acquire the skills necessary to increase their educational attainment
7. The availability of full information about the department and its members, and their contact information (website).
8. Develop every day skills of college students
9. Consolidate ethical and behavioral values among students
10. Raise students' awareness and strength their sense of belonging to their nation
11. Develop students' talents and tap them to serve their community
12. Provide care to students through material and moral support
13. Provide cultural, scientific, social and sports services to students

4. Special Support

(Low achievers, disabled, gifted, and talented students).

Sponsored by Vice Dean of Student Affairs
The committees of student's affairs

- Raise the awareness of students whom are low achievers, disabled and strengthen their sense of belonging to their department
- Provide care to students through material and moral support
- Develop students' talents and benefit from them to serve their community
- Providing cultural, scientific, social and sports services to students

E. Faculty and Administrative Staff:

1. Needed Teaching and Administrative Staff

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Professor						
Associate Professor	Physics	Theoretical		1	1	2
Assistant Professor	Physics	Electronic		2	2	4
Technicians and Laboratory Assistants	Physics	Physics		3	4	7

F. Learning Resources, Facilities, and Equipment:

1. Learning Resources

Learning resources required by the Program (textbooks, references, e-learning resources, web-based resources, etc.)

Several excellent resources are available to help you learn physics, depending on your level and learning style. Here are a few suggestions:

1- Centre Library in university and Zulfi campus
2- Online library SDL https://sdl.edu.sa/SDLPortal/Publishers.aspx
3- Some especial links on website link such as:
   a. Khan Academy
   b. MIT OpenCourseware
   c. American Physical Society (APS)

2. Facilities and Equipment

(Library, laboratories, classrooms, etc.)

1. Using the public library of the University.
2. Adopting the references and text books approved by the council of the physics department or any authorized committee.
3. Participating in the University's database that allows the access to most international publishers.
4. Writing books and translation by the department members.
5. Purchasing and providing the necessary books.

3. Procedures to ensure a healthy and safe learning environment

(According to the nature of the Program)

Safety is a core value at Zulfi College of Science and Majmaah University is committed to continued advancement of an institutional safety culture with strong programs of personal safety, accident and injury prevention, wellness promotion, and compliance with applicable environmental and health and safety laws and regulations.

Physics Department makes all reasonable efforts to:

- Promote occupational and personal safety, health and wellness;
- Protect the health and safety of Physics department faculty, staff and students;
- Provide information to faculty, staff, and students about health and safety hazards;
- Identify and correct health and safety hazards and encourage faculty, staff, and students to report? potential hazards;
- Conduct activities in a manner protective of the environment, and inform the Zulfi community regarding environmental impacts associated with institutional operations;
- Maintain a risk-based emergency management program to reduce the impact of emergency events to the Zulfi community.

Faculty, staff and students are responsible for:

- Keeping themselves informed of conditions affecting their health and safety;
- Participating in safety training programs as required by Zulfi policy and their supervisors and instructors;

Adhering to health and safety practices in their workplace, classroom, laboratory and student campus residences; Advising of or reporting to supervisors, instructors potentially unsafe practices or serious hazards in the workplace, classroom or laboratory.

G. Program Quality Assurance:

1. Program Quality Assurance System

Provide a link to the quality assurance manual.

https://majmaah-my.sharepoint.com/:f:/g/personal/h_hanafy_mu_edu_sa/EmXUt_Tglg5Gpu6ub4tK5_gBbVQn0SaBgJ7s3BFfc1KvlA?e=U1L8sN

2. Procedures to Monitor Quality of Courses Taught by other Departments

- Polls for the enrolled students and those who graduated from the program
- Alumni surveys
- Establishing an internet open forum to get student feedback

3. Procedures Used to Ensure the Consistency between Main Campus and Branches (including male and female sections).

1- Survey's to evaluate the different courses.
2- Survey's to evaluate the faculty member by the student.
3- Internal workshops in the department

5. Assessment Plan for Program Learning Outcomes (PLOs),

PLO	direct	indirect	Course Response	date		Target
	Action (Assessment tools)			from	to	
K1	Reports, discussions, presentations, Standardized exams, Seminars, and Assignments.	Surveys	PHYS 0331, PHYS 0302, PHYS 0351, PHYS 0341, PHYS 0312, PHYS 0405, PHYS 0442, PHYS 0453	Semester 481 Semester 472 Semester 492		70%
K2			PHYS3013, PHYS 3033, PHYS 0311, PHYS 0351, PHYS 0332, PHYS 0452, PHYS 0422, PHYS 0461	Semester 501 Semester 481 Semester 492		70%

PLO	direct Action (Assessment tools)	indirect	Course Response	date from	date to	Target
K3			PHYS 0433, PHYS 0341, PHYS 0311, PHYS 0351, PHYS 0332, PHYS 0482, PHYS 0422, PHYS 0434	Semester 501 Semester 481 Semester 492		70%
S1	Standardized exams, small projects, Reports, presentations, Assignments, Solved problems, Discussion, and Lab. Reports	Surveys Visiting Scientific and Factory	PHYZ 0302, PHYZ 0332, PHYZ 0452, PHYZ 0505, PHYZ 0442, PHYZ 0481, PHYZ 0453, PHYZ 0461, PHYZ 0482,	Semester 501 Semester 481 Semester 482		70%
S2			PHYS 0331, PHYS 0302, PHYS 0351, PHYS 0341, PHYS 0312, PHYS 0405, PHYS 0442, PHYS 0453, PHYS 3013, PHYS 3033, PHYS 0311, PHYS 0351, PHYS 0332, PHYS 0452, PHYS 0422, PHYS 0461	Semester 502 Semester 492 Semester 481		70%
S3			PHYS 0311, PHYS 0312, PHYS 0452, PHYS 0505, PHYS 0442, PHYS 0481, PHYS 0482,	Semester 471 Semester 482 Semester 501		70%
S4			PHYS 0331, PHYS 3033, PHYS0341, PHYS 0321, PHYS 0404, PHYS 0422, PHYS 0482,	Semester 491 Semester 482 Semester 502		70%
V1	Workshops, work with social	Sharing for Public works	PHYS 0331, PHYS 3033, PHYS 0341, PHYS 0452, PHYS 0405, PHYS 0442, PHYS 0481, 0453, PHYS 0482	Semester 472 Semester 502 Semester 501		70%
V2			PHYS 0311, PHYS 0321, PHYS 0312, PHYS 0404, PHYS 0422, PHYS 0461, PHYS 0482	Semester 482 Semester 491 Semester 502		70%
V3			PHYS 0302, PHYS 0351, PHYS 0332, PHYS 0333, PHYS 0481, PHYS 0482	Semester 482 Semester 491 Semester 502		70%

5. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Leadership	program leaders	Surveys	End of Academic year
Effectiveness of teaching & assessment	students, graduates, alumni	Surveys	End of Academic Semester
Learning resources,	independent reviewers	Surveys	End of Academic year
Partnerships	program leaders	Surveys	End of Academic year
Achievements	program leaders	Surveys	End of Academic year

Evaluation Areas/Aspects: e.g., leadership, effectiveness of teaching & assessment, learning resources, services, partnerships, etc.
Evaluation Sources: students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, etc.
Evaluation Methods: e.g., Surveys, interviews, visits, etc.
Evaluation Time: e.g., beginning of semesters, end of the academic year, etc.

6. Program KPIs*

The period to achieve the target (2025) year(s).

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
1	KPI-P01	Students' Evaluation of Quality of learning experience in the program	90%	statistical	End of Academic year
2	KPI-P02	Students' evaluation of the quality of the courses	4	Statistical	End of Academic year
3	KPI-P03	Completion rate	4	Statistical	End of Academic year
4	KPI-P04	First-year students' retention rate	60%	Statistical	End of Academic year
5	KPI-P05	Students' performance in the professional and/or national examinations	60%	Statistical	End of Academic year
6	KPI-P06:	Graduates' employability and enrolment in postgraduate programs	70%	statistical	End of Academic year
7	KPI-P07	Employers' evaluation of the program graduates' proficiency	70%	Survey	End of Academic year
8	KPI-P08	Ratio of students to teaching staff	1:20	Statistical	End of Academic year
9	KPI-P09	Percentage of publications of faculty members	70	Survey	End of Academic year
10	KPI-P10	Rate of published research per faculty member	1:3	Survey	End of Academic year
11	KPI-P11	Citations rate in referred journals per faculty member	1:250	Statistical	End of Academic year

*including KPIs required by NCAAA

H. Specification Approval Data:

Council / Committee	**Physics Council**
Reference No.	**16**
Date	**30/12/2024**