2023
TP-151

Program Specification
(Bachelor)

Program:	**Bachelor of Science in Physics**
Program Code (as per Saudi university ranking):	**05330101**
Qualification Level:	Bachelor's degree (Level 6)
Department:	Physics
College:	Faculty of Science
Institution:	University of Tabuk
Program Specification:	New ☐ updated* ☒
Last Review Date:	05/12/2023

*Attach the previous version of the Program Specification.

Table of Contents

A. Program Identification and General Information

1. Program's Main Location :
Faculty of Science, Main Campus
2. Branches Offering the Program (if any):
None
3. Partnerships with other parties (if any) and the nature of each:
None
4. Professions/jobs for which students are qualified
● Demonstrator- 231027 ● Vocational trainer- 232001 ● Physicist- 211101
5. Relevant occupational/ Professional sectors:
● **Education sectors** ● **Universities** ● **Scientific research centers** ● **Laboratories** ● **Factories** ● **Private Sectors** ● **Communication companies** ● **Industrial locations** ● **Water refining authorities** ● **Electrical grid companies** ● **Nuclear and Radiological Regulatory Commission** ● **Zakat, Tax and Customs Authority** ● **Presidency of Meteorology and Environment** ● **Saudi Standards, Metrology and Quality Organization** ● **Saudi Geological Survey** ● **Saudi Export Development Authority** ● **Saudi Authority for Industrial Cities and Technology Zones**

6. Major Tracks/Pathways (if any):

Major track/pathway	Credit hours (For each track)	Professions/jobs (For each track)
1. None		

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

exit points/awarded degree	Credit hours

1. None	

8. Total credit hours: (137)

B. Mission, Objectives, and Program Learning Outcomes

1. Program Mission:

Deliver exceptional education in physics, fostering specialized individuals through an inclusive environment, distinguished curriculum, and expert faculty. By integrating community engagement and scientific research, we contribute to advancements in the field while cultivating a sense of societal responsibility.

2. Program Goals:

Education

Deliver a comprehensive and dynamic physics curriculum, all taught by highly qualified and engaging faculty members.

Graduates and Their Skills:

Equip students with a strong physics foundation, effective communication, teamwork, lifelong learning, preparing them for diverse careers, advanced studies, and collaborative contributions.

Faculty Member Research:

Encourage impactful research by faculty members, and provide research opportunities for undergraduate students, fostering their research skills and scientific curiosity.

Community Services:

Foster social responsibility through community engagement and collaborations, addressing societal challenges, and contributing to community development.

3. Program Learning Outcomes*

Knowledge and Understanding	
K1	Explain fundamental laws, principles, and theorems of physics.
K2	Interpret how the physical sciences govern technological advancements and their impact on our lives.
Skills	
S1	Calculate the solution of theoretical and practical physical problems.
S2	Apply the methods to solve physics phenomena with proper tool.
S3	Organize research reports on physics fields using a structured process of inquiry and scientifically-based research.
S4	Assess physical models both analytically and computationally considering the limitations of different approaches
S5	Communicate comprehensive physics ideas, both orally and in writing.
Values, Autonomy, and Responsibility	
V1	Participate in a wide range of scientific tasks, community service initiatives, and duties both individually and as part of a team.
V2	Demonstrate academic values and ethical code of conduct.

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

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	**10**	**26**	**18.97%**
	Elective	**4**	**10**	**7.29%**
College Requirements	Required	**6**	**15**	**10.94%**
	Elective			
Program Requirements	Required	**20**	74	**54.01%**
	Elective	**2**	**6**	**4.37%**
Capstone Course/Project	Required	**1**	**3**	**2.18%**
Field Training/ Internship	Required	**1**	**3**	**2.18%**
Residency year				
Others				
Total		45	137	100%

* Add a separated 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	ELS1101	English Language (1)	Required		3	Institution
	MATH1101	Intro to Mathematic	Required		3	Institution
	ARAB1101	Arabic Language Skills	Required		2	Institution
	ISLS1101	Islamic Culture	Required		2	Institution
	CHEM1101	Fundamentals of Chemistry	Required		3	College
	PHYS1101	Fundamentals of Physics	Required		3	College
	CID1101	Communication Skills	Required		2	Institution
Level 2	ELS1102	English Language (2)	Required	ELS1101	3	Institution
	MATH1102	Calculus	Required	MATH1101	3	Institution
	EDUF1102	Learning, Thinking, and Research Skills	Required		3	Institution
	CSC1101	Computer Skills and Applications	Required		3	Institution
	BIO1101	Fundamentals of Biology	Required		3	College
	PHYS1102	Waves and Vibrations	Required	PHYS1101	3	Program
Level 3	BIO1201	Principles of Environmental sustainability	Required		2	College
	MATH1201	Fundamentals of integral Calculus	Required	MATH1102	4	Program
	PHYS1201	General Electricity	Required	PHYS1101	4	Program
	PHYS1203	Theoretical Physics	Required	MATH1102	4	Program
	PHYS1202	Classical Mechanics (1)	Required	PHYS1101	3	Program
	ISLS1201	Ethics and civilizational values in Islam	Required	ISLS1101	2	Institution
Level 4	BIO1208	Biodiversity	Required		2	College
	PHYS1204	Thermodynamics	Required	PHYS1102	4	Program
	PHYS1206	Natural Resources	Required		2	College

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
	PHYS1207	Modern Physics	Required	PHYS1101	4	Program
	PHYS1205	Electromagnetism (1)	Required	PHYS1201	3	Program
	GEE_L	Elective Language	Elective		3	Institution
Level 5	GEE_P	Elective Personal and Professional Development	Elective		2	Institution
	PHYS1301	Classical Mechanics (2)	Required	PHYS1202	3	Program
	PHYS1302	Electromagnetism (2)	Required	PHYS1205	4	Program
	PHYS1304	Quantum Mechanics I	Required	PHYS1203, PHYS1207	3	Program
	PHYS1303	Electronics (1)	Required	PHYS1203	4	Program
	GEE_C	Elective Culture	Elective		2	Institution
Level 6	PHYS1306	Solid State Physics (1)	Required	PHYS1304	4	Program
	PHYS1307	Nuclear Physics (1)	Required	PHYS1304	4	Program
	PHYS1308	Statistical Mechanics	Required	PHYS1204, PHYS1304	3	Program
	GEE_T	Elective technical	Elective		3	Institution
	PHYS1305	Optics	Required	PHYS1102	4	Program
Level 7	PHYS1401	Semiconductors	Required	PHYS1306	3	Program
	PHYS1402	Radiation Physics	Required	PHYS1307	3	Program
	PHYS1403	Computational Physics (1)	Required	PHYS1304	3	Program
	PHYS1404	Laser	Required	PHYS1305	4	Program
	PHYS1498	Project	Required	PHYS1304	3	Program
Level 8	PHYS14XX	Elective Physics Course (1)	Elective		3	Program
	PHYS14XX	Elective Physics Course (2)	Elective		3	Program
	PHYS1495	Training	Required	90 credit hours	3	Program

* 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)

https://drive.google.com/drive/folders/1p9xT6_BVKCvtLeFnRtrBNtC-ZkW-BFS9?usp=sharing

4. Program learning Outcomes Mapping Matrix:

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

Course code & No.	Program Learning Outcomes								
	Knowledge and understanding		Skills					Values, Autonomy, and Responsibility	
	K1	K2	S1	S2	S3	S4	S5	V1	V2
ELS1101					I			I	

ELS1102					I		I	I	
ARAB1101									
ISLS1101								I	I
ISLS1201								I	I
CID1101							I		
EDUF1102					I			I	I
CSC1101						I	I		
MATH1101			I	I					
MATH1102			I	I					
MATH1201			I	I					
BIO1101								I	I
BIO1201								I	I
BIO1208								I	I
CHEM1101					I				
GEE_L					I			I	
GEE_P					I			I	I
GEE_C								I	
GEE_T					I		I		
GEE_S			I		I		I		
PHYS1101	I	I	I		I			I	I
PHYS1102	I	I	I		I			I	I
PHYS1201	I	I	I		I			I	I
PHYS1202	P		P	I		I			P
PHYS1203	P		P	I		I			P
PHYS1204	P	P	P	I	P			P	P
PHYS1205	P	P	P	P		I			P
PHYS1206	P	p	P		p			p	p
PHYS1207	P	P		P	P	P	I	P	P
PHYS1301	M		P	P		P	I		M
PHYS1302	M	P		P	P	P	I	P	M
PHYS1303	M	P	M	P	P			P	M
PHYS1304	M	M		P	P	P	P		M
PHYS1305	M	M		M	M	P	P	P	M
PHYS1306	M	M		M	M	M	P	M	M
PHYS1307	M	M		M	M	M	P	M	M
PHYS1308	M		M	M		M	M		M
PHYS1401	M	M	M	M	M	M	M	M	M
PHYS1402	M	M	M	M	M	M	M	M	M
PHYS1403	M	M	M	M	M	M	M	M	M
PHYS1404	M	M	M	M	M	M	M	M	M
PHYS1498	M	M	M	M	M	M	M	M	M
PHYS1405	M	M	M	M	M	M	M	M	M
PHYS1406	M	M	M	M	M	M	M	M	M
PHYS1407	M	M	M	M	M	M	M	M	M
PHYS1408	M	M	M	M	M	M	M	M	M
PHYS1409	M	M	M	M	M	M	M	M	M
PHYS1410	M	M	M	M	M	M	M	M	M
PHYS1411	M	M	M	M	M	M	M	M	M
PHYS1412	M	M	M	M	M	M	M	M	M
PHYS1413	M	M	M	M	M	M	M	M	M
PHYS1414	M	M	M	M	M	M	M	M	M
PHYS1415	M	M	M	M	M	M	M	M	M
PHYS1416	M	M	M	M	M	M	M	M	M

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

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

Describe teaching and learning strategies, including curricular and extra-curricular activities, to achieve the program learning outcomes in all areas.

Teaching strategies	Including strategies	Description
lecture	lecture	It depends on the teacher giving information with the possibility of using the blackboard to organize and simplify some ideas, and the student takes the position of the listener who expects at any moment that the teacher will ask him to repeat or recite any part of the material he delivered. In this method, the teacher is the focus of the educational process, and attention should be paid to the clarity of the voice and speaking at an appropriate speed, and effort should be made to maintain the attention of the students.
	E-lecture (Technology based learning)	E-lecture, also known as technology-based learning, is a teaching strategy that utilizes electronic platforms to deliver lectures or educational content to students. It enables learners to access information and engage in learning activities remotely, at their own pace and convenience. This strategy is important as it promotes accessibility, flexibility, and personalized learning experiences. E-lectures can take various forms, such as pre-recorded video lectures, live webinars, or interactive multimedia presentations. They find applications in distance education, blended learning environments, and professional development programs.
	Cognitive maps	It is the strategy in which information is organized in forms and graphics that show the relationships between them. It is used to clarify the sequence of information, between the basic idea and the ideas associated with it, to explain the relationships between the parts, and to explain the reasons and results.
Discussion	Discussion	One of the verbal strategies, based on the exchange of opinions and ideas, differs from the lecture in that it allows for verbal interaction between two or more parties. The discussion may be between the teacher and the students, or between the students under the supervision of the teacher. It should be considered that the questions are appropriate to the goals and the level of the students, and are thought-provoking, allowing all students the opportunity to give an appropriate time to answer.
	Brainstorming	is a teaching strategy that involves generating a large number of ideas or solutions to a problem in a short period of time. It encourages creativity, critical thinking, and active participation among learners. This technique is important as it helps to foster collaboration, enhance communication skills, and promote innovative thinking. Brainstorming can be conducted in various ways, such as group brainstorming, individual brainstorming, or even online brainstorming sessions. It finds applications in a wide range of fields, including physics, education, and creative endeavors. Overall, brainstorming is an effective tool that empowers learners to think outside the box and explore diverse perspectives to tackle challenges.
Self-education	Tutorials and Presentation	A strategy for the learner (student), as the learner is the actor of this strategy, and in it he acquires the necessary knowledge and deals with the sources of knowledge himself, so he acquires the skill of learning at all times, what is known as “continuous education.” Self-education
Problem	Critical	A strategy that includes a group of thinking skills, based on evaluation and

Solving	thinking	judgment; In it, information is analyzed, sorted, and scrutinized based on certain criteria, in order to issue a judgment about the value of something or to reach a conclusion, generalization, or decision.
	deductive	A strategy based on inference, the process of teaching is from the whole to the part, that is, from the general rule to examples and individual cases, and the essence of the idea of deduction is that if the whole is true, its parts will be true. Used in teaching general rules such as theories and laws.
	Problem Solving	A strategy based on activating students' performance and providing them with an opportunity for scientific thinking, so that students challenge specific problems that they plan to address and research by collecting and organizing data
Laboratory	Laboratory work	Laboratory work is a hands-on teaching strategy that promotes active learning and practical application of knowledge. It is important for developing critical thinking skills and deepening understanding. It encompasses various types of experiments and simulations in the physics field. Overall, laboratory work bridges theory and practice, fostering a meaningful learning experience.
projects	cooperative education Group work (Group activities)	A strategy based on dividing students into small groups, through which students accomplish their work as partners, as each member is not only responsible for himself; rather, he must help the group; The slow learner learns from the superior.
	projects	A strategy in which a set of educational projects related to the specialization are identified and presented to students. Each group chooses a specific project.
Flipped Classroom	Flipped Classroom	The flipped classroom is a teaching strategy that involves reversing the traditional sequence of instruction. In this approach, students are introduced to new concepts and materials, and then classroom time is utilized for collaborative activities, discussions, and problem-solving exercises. The flipped classroom strategy empowers students to take ownership of their learning and promotes a deeper understanding of the subject matter.

NQF Learning Domains and Learning Outcomes		**Teaching Strategies**
1	**Knowledge and Understandings**	
1.1	Describe fundamental laws and principles of physics theorems.	Lecture - Discussion - Self-education- Flipped Classroom Extracurricular Activities
1.2	Recognize how the physical sciences govern technological advancements and their impact on our lives	Lecture-Discussion - Self-education- Laboratory - Projects Extracurricular Activities
2	**Skills**	
2.1	Calculate the solution of theoretical and practical physical problems.	Lecture - Discussion - Problem-Solving Extracurricular Activities
2.2	Apply the methods to solve physics phenomena with proper tools.	Lecture - Discussion - Problem-Solving Extracurricular Activities
2.3	Organize research reports on physics fields using a structured process of inquiry and scientifically-based research.	Lecture - Discussion - Self-education- Projects - Laboratory Extracurricular Activities
2.4	Evaluate physical models both analytically and	Lecture - discussion - Problem-Solving Self-

	computationally considering the limitations of different approaches	education Extracurricular Activities
2.5	Communicate comprehensive physics ideas, both orally and in writing.	Lecture - Discussion - Projects - Self-education - Flipped Classroom Extracurricular Activities
3	**Values**	
3.1	Participate in a wide range of scientific tasks, duties, and joint work.	Discussion - Problem-Solving - Projects - Laboratory Extracurricular Activities
3.2	Demonstrate academic values and ethical code of conduct.	Discussion - Problem-Solving - Projects - Laboratory Extracurricular Activities

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).

Assessment methods	Including assessments	Description
Written exams	Exams	An organized means to evaluate students' abilities and determine their level of achievement in knowledge and skills, which is a set of questions presented to students on paper to answer with a pen, so it is known as "paper and pen", and it is one of the most important and most important methods of evaluation
	Quizzes	evaluate students' abilities and determine their level of achievement in knowledge and skills on a specific topic in short times
	Lab Exam	Practical exams test students' practical skills and techniques usually in laboratory, which can be can be administered individually, in pairs or small groups.
Discussion	Oral Assessments Q&A Class Discussion	The student's ability to read, sound pronunciation, expression, and conversation is evaluated, and the extent of his comprehension of knowledge and skills is judged. Through it, students can be detected and corrected immediately, and students can also benefit from the answers of their colleagues.
Assignments	Working Papers	They are progress sheets to measure students' mastery of a skill or a group of educational skills such as comparison, analysis and synthesis skills. They are used at the end of the lesson. The teacher determines the form of learning in the paper (individual or cooperative) and then discusses the contents of the paper with the students, indicating the aspects of right and wrong in it.
	Homework	It measures the understanding and proficiency of students outside the classroom for a specific lesson, and the types of assignments differ; The teacher can assign the students essay or topic questions, mind maps, and so on, and they can be individual or group assignments.
Laboratory Report	Lab Report	A lab report is a comprehensive document that summarizes the procedures, observations, and analysis conducted during a laboratory experiment. It serves as a vital assessment method, allowing students to showcase their

		understanding of scientific concepts, experimental techniques, data analysis, and critical thinking skills. The lab report plays a crucial role in evaluating a student's ability to effectively communicate scientific findings, draw meaningful conclusions, and evaluate the significance of their results.
Research and projects, presentations	Scientific examination of the student's research and project submissions, often using rubrics or "evaluation forms" in conjunction with presentation	

NQF Learning Domains and Learning Outcomes		Assessment Methods
1	**Knowledge and Understandings**	
1.1	Describe fundamental laws and principles of physics theorems.	Direct Methods: Written Exams - Discussion - Presentation Indirect Methods: Extracurricular Activities Survey
1.2	Recognize how the physical sciences govern technological advancements and their impact on our lives	Direct Methods: Written Exams - Discussion - Presentation - Laboratory report - Project Indirect Methods: Extracurricular Activities Survey
2	**Skills**	
2.1	Calculate the solution of theoretical and practical physical problems.	Direct Methods: Written Exams - Discussion - Assignments Indirect Methods: Extracurricular Activities Survey
2.2	Apply the methods to solve physics phenomena with proper tools.	Direct Methods: Written Exams - Discussion - Assignments Indirect Methods: Extracurricular Activities Survey
2.3	Organize research reports on physics fields using a structured process of inquiry and scientifically-based research.	Direct Methods: Written Exams - Laboratory Report - Project Indirect Methods: Extracurricular Activities Survey
2.4	Evaluate physical models both analytically and computationally considering the limitations of different approaches	Direct Methods: Written Exams - Discussion - Assignments - Project Indirect Methods: Extracurricular Activities Survey
2.5	Communicate comprehensive physics ideas, both orally and in writing.	Direct Methods: Written Exams - Discussion - Assignments - Project - Presentation Indirect Methods: Extracurricular Activities Survey
3	**Values**	
3.1	Participate in a wide range of scientific tasks, duties, and joint work.	Direct Methods: Laboratory Report - Project - Presentation Indirect Methods:

		Extracurricular Activities Survey
3.2	Demonstrate academic values and ethical code of conduct.	Direct Methods: Written Exam - Assignments - Project - Laboratory Report Indirect Methods: Extracurricular Activities Survey

D. Student Admission and Support:

1. Student Admission Requirements

The program has the following special admission requirements, in addition to the full terms and requirements by the university, which are described through the following link.
https://www.ut.edu.sa/ar/Deanship/dar/Pages/default.aspx

- The candidate must obtain a score of 3.0 on the English language test (IELTS) or equivalent
- The general aptitude test score must not be less than 60%.
- The average score for the physics course test in the high school stage must not be less than 75%.
- The average score for the mathematics course test at the high school level must not be less than 75%.

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).

- An orientation at the beginning of each academic year for new arrival students.
  - More information is found using the following website: https://www.ut.edu.sa/ar/Faculties/science/physics-department/Pages/default.aspx

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).

- Student Academic Counseling Committee is in charge of student counseling.
- Each Faculty member is assigned a group of students for counseling.
- Faculty member will be available for student counseling at specific office hours during on daily basis.
- Faculty member should make a file for each student in his counseling group where student contact information, a copy of student timetable, a copy of student academic record is kept and updated every semester

4. Special Support

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

Universities and colleges are increasingly aware of the needs of students with a disability and students with a learning difficulty.
Support provided by the college can include:
• accommodation adapted for the needs of students with disabilities
• professional care staff
• help from volunteers

There are many things universities did to help students with disabilities, including:
• making sure buildings and facilities are accessible
• encouraging flexible teaching methods
• providing support during exams
• allowing additional time to complete courses

Low achiever students get full attention and help from the program's administrators starting from identifying them passing through providing support using academic counseling sessions, additional lecturing, and frequent office hours visiting's and guiding them to the university and college helping programs such as ASK community and additional tutorials.

Gifted and talented students are highly and fully supported by the department and accordingly are given challenging tasks to meet their intellectual levels. Department is fully equipped and ready to properly handle their affairs.

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	**Physics**	Nuclear physics / condensed matter physics/ laser and optics physics	**None**	3	2	5
Associate Professor	**Physics**	Nuclear physics / condensed matter physics / laser and optics physics/ Theoretical Physics	**None**	4	3	6
Assistant Professor	**Physics**	Nuclear Physics/Theoretical Physics /Solid State/Medical Physics/ Plasma Physics	**None**	4	5	9
Lecturer	**Physics**	**Physics**	**None**	2	3	5
Teaching Assistant				0	0	0
Technicians and Laboratory Assistant	**Physics**	**Physics**	**None**	6	6	12
Administrative and Supportive Staff	**None**	**None**	**None**	2	2	4
Others (specify)				0	0	0

F. Learning Resources, Facilities, and Equipment:

1. Learning Resources

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

Department of Physics provides the students with the best possible and latest technological resources to go through this program. Major facilities provided will be as follows:

- Well equipped classrooms
- Fully developed library
- Access to e-resources
- Access to electronic materials
- Study material prepared by faculty members
- Fully functional study rooms.

2. Facilities and Equipment

(Library, laboratories, classrooms, etc.)

- Library in the college,
- Central Library at the university of Tabuk
- Laboratories for teaching and research laboratories
- Classrooms for teaching
- WIFI everywhere at the University

3. Procedures to ensure a healthy and safe learning environment

(According to the nature of the program)

In our physics program, we prioritize maintaining a healthy and safe environment for all students, faculty, and staff. We have implemented various arrangements to ensure the well-being and safety of everyone involved. These arrangements are in line with the nature of the program and adhere to relevant guidelines and regulations.

To provide you with detailed information about the arrangements in place, we have two important resources available:

1. Quality Assurance Manual: Our quality assurance manual outlines the specific procedures and protocols we follow to maintain a healthy and safe environment within the physics program. It covers various aspects, including laboratory safety, equipment maintenance, emergency preparedness, and risk assessment. You can access the Quality Assurance Manual by clicking on the following link: Quality Assurance Manual.
2. Safety Documents: We have compiled a set of safety documents that provide comprehensive guidance on maintaining a safe environment within the physics program. These documents cover topics such as laboratory safety guidelines, chemical handling protocols, safety equipment usage, and emergency response procedures. You can access the Safety Documents by clicking on the following link: Safety Documents.

G. Program Quality Assurance:

1. Program Quality Assurance System

Provide a link to quality assurance manual.

https://drive.google.com/file/d/1KxMq6LVQp7iSKxozRATmhWC9onK0r_sl/view?usp=sharing

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

The department of physics closely monitors course outcomes taught by faculty members from other departments in the same way the department monitors courses taught by the faculty members within the department.

Please refer to our Quality Assurance Manual for more detailed information on these procedures. You can access the manual through this link: Quality Assurance Manual.

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

The Physics program implements a strong and united study plan for students, at more than one sections of male and female students according to a unified operational plan as well as a unified study plan, and faculty members who teach courses in both parts are fully involved in the available specifications as well as the planning, evaluation, and reporting processes.
The academic schedule is prepared for each semester so that it contains sections for the same courses, based on the academic levels of both parts. The course descriptions for male and female students are consistent, including teaching strategies and evaluation methods.
Each course with more than one section in each of the female and male sections has one coordinator. The course coordinator is the basis of the courses' quality course work, from the formulation of the description to its review and eventual submission of a request to the department council for modification and updating based on reports of the courses' completion for each course. In both student sections, there should be one coordinator for each course who is responsible for reporting to all program branches.
The course coordinator is responsible of

- To ensure that the course meets the course specifications,
- Create a unified curriculum that will be distributed to students.
- Discusses with peers teaching and learning strategies and learning assessments.
- He discusses with his peers the suggestions and improvements made in the previous session's report.
- Preparing periodic and final exams in coordination with them at the same time to ensure fairness in the evaluation process between male and female students.
- Ensure that written examinations cover course learning outcomes.

At the end of each semester, the course coordinator prepares a combined course report for all divisions at the level of both parts, and compares them to determine the level of each division and differences between the two parts' results. The data are statistically examined and reviewed in order to develop course enhancement strategies.
An annual report on the overall program is created by a group that includes members from both the male and female sections at the end of the semester, that includes suggestions and improvement plans. Additionally, there is a single program learning outcomes evaluation method with two cycles of testing. A program learning outcomes assessment report is created based on the above plan.

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

Each year, program learning outcomes evaluation surveys and assessments will be conducted. It lists key performance indicators and their percentage of accomplishment, which is computed. The department therefore will analyze the deficiencies and action plans will be proposed and enforced.

The full procedural guide is found in the link
https://drive.google.com/file/d/1LvbCD816FBT32WK9Q5kN91fBViy8oG5B/view?usp=sharing

5. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
effectiveness of teaching & assessment	students, graduates, alumni, faculty, program leaders	Surveys, Course Report	End of each Semester

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
learning resources	faculty, program leaders	Surveys, Course Report, Faculty discussion	End of Academic Year
leadership	faculty, Dean office, Faculty subcommittees	Surveys, interviews, Faculty discussion	End of Academic Year
Learning outcomes	Students, graduates, alumni, faculty Staff, program leaders,	Surveys, Course Results	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, and others.

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 is one year (1year).

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
1	KPI-P-01	Students' Evaluation of Quality of learning experience in the Program	4.5 out of 5	Surveys	End of Academic Year
2	KPI-P-02	Students' evaluation of the quality of the courses	4.5 out of 5	Surveys	End of Academic Year for both Semester
3	KPI-P-03	Completion rate	70%	Reports of Academic System	End of Academic Year
4	KPI-P-04	First-year students retention rate	100%	Reports of Academic System	End of Academic Year
5	KPI-P-05	Students' performance in the professional and/or national examinations	N. A	Reports from Standardized tests	End of Academic Year
6	KPI-P-06	Graduates' employability and enrolment in postgraduate programs	50%	Reports from Alumni Unit	End of Academic Year
7	KPI-P-07	Employers' evaluation of the program graduate's proficiency	4.5 out of 5	Surveys	End of Academic Year
8	KPI-P-8	Ratio of students to teaching staff	15	Reports from Deanship of Teaching Staff Affairs	End of Academic Year
9	KPI-P-9	Percentage of publications of faculty members	100%	Reports from Scientific Research Unit	End of Academic Year
10	KPI-P-10	Rate of published research per faculty member	1:3	Reports from Scientific Research Unit	End of Academic Year
11	KPI-P-11	Citations rate in refereed journals per faculty member	1:60	Reports from Scientific Research Unit	End of Academic Year

* including KPIs required by NCAAA

H. Specification Approval Data:

COUNCIL /COMMITTEE	**Physics Department Council**
REFERENCE NO.	**COUNCIL (18) – SUBJECT (1)**
DATE	**20/06/2022**