هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

NCAAA
اعتماد

2023
TP-151

Program Specification

▬ (Bachelor)

Program:	**BACHELOR OF SCIENCE (B.Sc.) IN PHYSICS**
Program Code (as per Saudi university ranking):	**053301**
Qualification Level:	**6**
Department:	**Physics**
College:	**Science**
Institution:	**Imam Mohammad Ibn Saud Islamic University (IMSIU)**
Program Specification:	New ☐ updated* ☒
Last Review Date:	**26/09/2024**

*Attach the previous version of the Program Specification.

Table of Contents

A. Program Identification and General Information

1. Program's Main Location:
Main campus

2. Branches Offering the Program (if any): N.A.

3. Partnerships with other parties (if any) and the nature of each: None

4. Professions/jobs for which students are qualified

- Teaching in high schools, universities and scientific institutions.
- Working in research centres.
- Industry areas: working in public and private companies.

5. Relevant occupational/ Professional sectors:

N.	Occupation name	Occupation code
1	Weather Forecasting and Environmental Monitoring Station	134906
2	Physicist	211101
3	Quality Specifications and Metrics Specialist	242122
4	Medical Laboratory Technician	321201
5	Professional Trainer	232001
6	Medical statistical Technician	331406

6. Major Tracks/Pathways (if any): N.A.

Major track/pathway	Credit hours (For each track)	Professions/jobs (For each track)
N.A.		

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

exit points/awarded degree	Credit hours
Intermediate Diploma of Science in Physics (Requirements: Student must complete a total of 66 credits, which includes 4 credits for the core course PHY 1496 Field Training)	**66**

8. Total credit hours: (142 Credit Hours)

B. Mission, Objectives, and Program Learning Outcomes

1. Program Mission:

Providing high-quality education in physics that enables graduates to meet the needs of the labor market and qualify them to pursue scientific research and contribute to the service and development of community.

2. Program Goals:

The Physics program is designed to achieve the following goals:

- Producing graduates who are well grounded in the fundamentals of Physics and acquisition of the necessary skills, in order to use their knowledge in Physics in a wide range of practical application.
- Developing creative thinking and the power of imagination to enable graduates work in research in academia and industry.
- Accommodating their relevant fields in allied disciplines and to allow the graduates of Physics to fit into the inter-disciplinary environment.
- Relating the training of Physics graduates to the employment opportunities, which contributes to economic and social development.

3. Program Learning Outcomes*

Knowledge and Understanding

K1	Recognize a broad set of knowledge concerning the fundamental principles and concepts of physics.
K2	Outline a knowledge and specialized understanding of processes, tools, methods, and practices based on recent developments in physics.

Skills

S1	Apply the concepts, principles and theories involved in addressing issues and problems in a range of different contexts.
S2	Critically evaluate knowledge and use it to provide innovative solutions to contemporary issues and problems in physics.
S3	Practice statistical methods and analysis in investigating different issues and case study research.
S4	Communicate in different ways demonstrating an understanding of theoretical knowledge, transferring knowledge and specialized skills, and sharing ideas within a variety of audience.
S5	Choose and use a variety of digital technology, information, communication technology tools, to process, analyze and produce data and information; to support and promote specialized research and projects.

Values, Autonomy, and Responsibility

V1	Demonstrate integrity, professional and academic ethics, participation in finding constructive solutions to some societal issues, and a commitment to responsible citizenship.
V2	Self-evaluate of the level of learning and performance, insist on achievement and excellence, and make logical decisions supported by evidence and arguments independently.
V3	Lead teamwork with functional flexibility and effectiveness, and take responsibility for professional development, participating in developing the group's performance, and enhancing the quality of life.

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

Diploma Learning Outcomes (Exit point):

Knowledge:

K1. Recognize a broad set of knowledge concerning the fundamental principles and concepts of physics.

Skills:

S1. Apply the concepts, principles and theories involved in addressing issues and problems in a range of different contexts.

S2. Critically evaluate knowledge and use it to provide innovative solutions to contemporary issues and problems in physics.

Values:

V1. Demonstrate integrity, professional and academic ethics, participation in finding constructive solutions to some societal issues, and a commitment to responsible citizenship.

V2. Self-evaluate of the level of learning and performance, insist on achievement and excellence, and make logical decisions supported by evidence and arguments independently.

V3. Lead teamwork with functional flexibility and effectiveness, and take responsibility for professional development, participating in developing the group's performance, and enhancing the quality of life.

-After completing their Diploma of Science in Physics from Imam Mohammed Ibn Saud Islamic University, students will have the following opportunities:

N.	Occupation name	Occupation code
1	Medical Laboratory Technician	321201
2	Medical statistical Technician	331406
3	Meteorological Technician	311102
4	Geophysicist	211402

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	2	4	2.81%
Institution Requirements	Elective	8	16	11.27%
College Requirements	Required	5	16	11.27%
College Requirements	Elective	0	0	0%
Program Requirements	Required	31	92	64.79
Program Requirements	Elective	0	0	0%
Capstone Course/Project	Required	1	4	2.81%
Field Training/ Internship	Required	1	4	2.81%
Residency year				
Others	Elective	2	6	4.23%
Total		50	142	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	PHY 1101	General Physics	Required	None	4	College
	MAT 1101	Calculus (1)	Required	None	4	College
	CHM 1101	General Chemistry (1)	Required	None	4	College
	ENG 1140	English (1)	Required	None	2	College
	QUR 1001	Quran Kareem [University Requirement (1)]	Elective	None	2	Institution
		University Requirement (2)	Elective	None	2	Institution
Level 2	PHY 1105	Classical Mechanics (1)	Required	PHY 1101 MAT 1101	3	Program
	MAT 1102	Calculus (2)	Required	MAT 1101	4	Program
	STA 1111	Intr. to Probability and Statistics	Required	MAT 1101	3	Program
	ENG 1195	English (2)	Required		2	College
	ARB 1001	Linguistic skills [University Requirement (3)]	Elective		2	Institution
		University Requirement (4)	Elective		2	Institution
		University Requirement (5)	Elective		2	Institution
Level 3	PHY 1240	Wave & Optics	Required	PHY 1105 MAT 1102	4	Program
	PHY 1230	Thermal Physics	Required	PHY 1101 MAT 1102	3	Program
	MAT 1203	Calculus (3)	Required	MAT 1102	4	Program
	MAT 1221	Intr. Linear Algebra	Required	MAT 1101	3	Program
		University Requirement (6)	Elective		2	Institution
		University Requirement (7)	Elective		2	Institution
Level 4	PHY 1221	Electricity and Magnetism	Required	PHY 1101 MAT 1203	3	Program
	PHY 1233	Mathematical Physics (1)	Required	MAT 1203	3	Program
	PHY 1203	Classical Mechanics (2)	Required	PHY 1105 MAT 1203	3	Program
	PHY 1250	Modern Physics	Required	PHY 1240	3	Program
	PHY 1282	Wave & Optics Laboratory	Required	PHY 1240	2	Program
	PHY 1283	Thermal Physics & Mechanics Laboratory	Required	PHY 1230	2	Program
		University Requirement (8)	Elective		2	Institution
Level 5	PHY 1312	Quantum Mechanics (1)	Required	PHY 1250 STA 1111	3	Program
	PHY 1321	Electromagnetic Fields	Required	PHY 1221	4	Program
	PHY 1334	Mathematical Physics (2)	Required	PHY 1233	3	Program
	PHY 1324	Electronics	Required	PHY 1221	3	Program
	PHY 1381	Electromagnetism Laboratory	Required	PHY 1221	2	Program

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
		Free Course *	Elective		3	
Level 6	PHY 1313	Quantum Mechanics (2)	Required	PHY 1312	3	Program
	PHY 1332	Statistical Physics	Required	PHY 1312 PHY 1230	3	Program
	PHY 1362	Atomic Physics	Required	PHY 1312	3	Program
	PHY 1382	Electronic Laboratory	Required	PHY 1324	2	Program
	PHY 1335	Computer Applications in Physics	Required	PHY 1334	2	Program
		Free Course *	Elective		3	
		University Requirement (9)	Elective		2	Institution
Level 7	PHY 1461	Solid state Physics	Required	PHY 1313	4	Program
	PHY 1464	Nuclear Physics	Required	PHY 1312	3	Program
	PHY 1404	Fluid Mechanics	Required	PHY 1334	3	Program
		Elective Course (1)	Elective		3	Program
		Elective Course (2)	Elective		3	Program
		University Requirement (10)	Elective		2	Institution
Level 8	PHY 1436	Computational Physics	Required	PHY 1335	3	Program
		Elective Course (3)	Elective		3	Program
	PHY 1481	Solid state Physics & Modern Laboratory	Required	PHY 1461	2	Program
	PHY 1496	Training	Required		4	Program
	PHY 1498	Final Year Project	Required	PHY 1461	4	Program

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

List of Elective courses:

Course code	Course Title
PHY 1426	Semiconductor Physics
PHY 1469	Introduction to Radiation Physics
PHY 1471	Special Topics in Applied Physics (1)
PHY 1472	Special Topics in Applied Physics (2)
CS 1249	Computer Programming for Science
PHY 1427	Solar Energy
PHY 1473	Introduction to Nano Physics
MAT 1253	Introduction to Operations Research
PHY 1440	Fundamental of Photonics
PHY1445	Laser Physics
PHY 1447	Atomic and Molecular Spectroscopy
PHY 1449	Introduction to Plasma Physics

3. Course Specifications:

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

https://drive.google.com/drive/folders/11Gu33oVclMyemDyxzH6vUtEjRus1BXB1?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	V3
PHY 1101	I	I	I	I	I	I	I	I	I	
MAT 1101	I	I	I	I	I	I	I	I	I	
CHM 1101	I	I	I	I	I	I	I	I	I	
ENG 1140								I	I	
QUR 1001								I	I	
PHY 1105	I	I	I	I	I	I	I	I	I	
MAT 1102	I	I	I	I	I	I	I	I	I	
STA 1111	I	I	I	I	I	I	I	I	I	
ENG 1195								I	I	
ARB 1001								I	I	
PHY 1240	I	I	I	I	I	I	I	I	I	
PHY 1230	I	I	I	I	I	I	I	I	I	
MAT 1203	I	I	I	I	I	I	I	I	I	
MAT 1221	I	I	I	I	I	I	I	I	I	
PHY 1221	I	I	I	I	I	I	I	I	I	
PHY 1233	P	P	P	P	P	P	P	P	P	
PHY 1203	P	P	P	P	P	P	P	P	P	
PHY 1250	P	P	P	P	P	P	P	P	P	
PHY 1282	I	I	I	I	I	I	I	I	I	I
PHY 1283	I	I	I	I	I	I	I	I	I	I
PHY 1312	P	P	P	P	P	P	P	P	P	
PHY 1321	P	P	P	P	P	P	P	P	P	
PHY 1334	P	P	P	P	P	P	P	P	P	
PHY 1324	P	P	P	P	P	P	P	P	P	
PHY 1381	P	P	P	P	P	P	P	P	P	P
PHY 1313	P	P	P	P	P	P	P	P	P	
PHY 1332	P	P	P	P	P	P	P	P	P	
PHY 1382	P	P	P	P	P	P	P	P	P	P
PHY 1362	M	M	M	M	M	M	M	M	M	
PHY 1335	P	P	P	P	P	P	P	P	P	
PHY 1461	M	M	M	M	M	M	M	M	M	

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding		Skills					Values, Autonomy, and Responsibility		
	K1	K2	S1	S2	S3	S4	S5	V1	V2	V3
PHY 1464	M	M	M	M	M	M	M	M	M	
PHY 1404	M	M	M	M	M	M	M	M	M	
PHY 1436	M	M	M	M	M	M	M	M	M	
PHY 1481	M	M	M	M	M	M	M	M	M	M
PHY 1496	M	M	M	M	M	M	M	M	M	M
PHY 1498	M	M	M	M	M	M	M	M	M	M
University Requirements								I	I	
Free course						P	P	P	P	

* 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.

The department ensures teaching quality standards through the following actions:
- At the beginning of each term the syllabi, are given to the students, containing courses detailed information, method of evaluation and grades, etc.
- The courses distribution is done according to the specialities of faculty staff and their wishes.
- The duties of the course instructor consist on:
  - Distribution of time according to the course contents.
  - The preparation of the exercises lists, the midterms and the final exam.
- The follow-up of good progress of the course through the periodic meetings with course instructors and graduate studies committee.
- Collect the course report.
- Update the course folder.
- Annual report is prepared annually.
- Student surveys of all courses and program.
- Teaching staff evaluations of the program.
- Annual Faculty and Staff performance evaluation.

Supports for student independent work:

There are many supports for the independent scientific work of the students and here are some of them:
1) Open Computer Labs: The students can use these facilities to review independently a part of a course, to prepare a home work or an exam, or to access the (local) digital library;
2) Provided free textbooks: The students can use textbooks to prepare independently exercises for the tutorial or to review examples of the course;
3) Digital library via open computer labs: The students can access the (local) digital library to get free papers and theses. They read independently these resources and write reports on them;

4) Materials provided via Blackboard: The teachers use Blackboard platform to give students all kinds of materials related to the courses: syllabi, slides, list of exercises, solutions to exams and home works, etc… These materials can be used independently by students for a best management of the course;

5) At least six office hours provided by each teacher: Each teacher has to choose in his timetable at least six office hours in order to discuss all course issues with students;

6) Research project course. During this course, students have to work independently in order to write a report and to give an oral presentation at the end of the course;

7) Mini-projects and/or home works in some courses: The main goal of these assessment methods is to strength the independence work of students.

Field Experience
- Field Experience Opportunities: Collaborate with local businesses and research institutions to provide Field training for students. Internships allow students to apply mathematical theories in practical settings, gain experience, and develop professional ethics (V1).
- Field Trips: Organize visits to companies or research centers where mathematics plays a crucial role, such as data analytics firms or engineering companies. These visits help students see the practical application of their studies and foster connections with potential employers.

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).

The assessment processes are performed for each cycle based on direct and indirect methods as indicated in the flowchart blow

Direct Assessment Methods:

- Exams.
- Capstone Project or Course.
- Performance (participation in campus and/or community events, volunteer work, presentations, internships, art performances, etc).
- Course e-Portfolio.
  Indirect Assessment Methods:
- Alumni Survey.
- Employer Survey.
- program advisory committee survey.
- Teaching staff surveys on the program.

D. Student Admission and Support:

1. Student Admission Requirements

- The admission of students at University is part of the responsibility of the Deanship of Admission and Registration.
- Applicant must be holding a General Secondary Certificate or Secondary Certificate or equivalent from outside Kingdom of Saudi Arabia.

- Applicant must not be terminated from any other university for discipline rules.
- Applicant must be medically fit.
- The admissions take place only once on summer vacation, through the Unified E-Admission Portal at the public universities in Riyadh region. There are no admissions for the second semester. The application for admission is through the Unified E-admissions Portal for Students.
- Students can apply for admission to IMSIU University through the Unified E-Admissions Portal for public universities in Riyadh region. In fact, It enables the applicant to fill the admission application electronically and to choose an academic major according to his/her certifications, grades and priorities determined by himself/herself without the need of his/her presence at the university.
- Eligibility Requirement is stated in IMSIU Undergraduate Study and Examination.
- Please note that the Deanship for Registration provides an admission guide, available via the link **Admission 1446** .

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 physics department provides a student handbook orientation.
- At the beginning of the academic year, new students are encouraged to attend orientation sessions organized by the counselling committee.
- New students will have the opportunity to meet faculty members, head of department, and program manager.

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 admitted to the bachelor program will be assigned an academic advisor, responsible for pastoral support, guidance and counseling.
- The lecturer for each course allocates 6 office hours per week advertised on his /her own timetable, and reserved as part of his/her teaching schedule to help the students on any academic problems/difficulties.
- Student is able to get individual consultation and academic advice appointment with teaching staff via e-mail or phone calls.
- A list of teaching staff members with their room numbers, their phone numbers and their e-mail addresses are given in the Bachelor's Physics Handbook and Department website.
- University support services include careers, financial advice, housing, counseling etc.
- Excellent library facilities.
- University, college and department handbooks provide information about the course structure and University regulations etc.
- Feedback is provided for all assessments.

4. Special Support

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

- Students with physical disabilities are welcomed in the program. If they wish to receive special accommodations while enrolled, they should contact the vice dean.
- Providing support lessons to students with low levels.

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			10	5	15
Associate Professor	Physics			8	4	12
Assistant Professor	Physics			10	10	20
Lecturer	Physics			2	2	4
Teaching Assistant	Physics			4	4	8
Technicians and Laboratory Assistant	Physics					
Administrative and Supportive Staff				1	1	2
Others (specify)						

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.)

- For each course the department assigned a faculty members committee to do the followings:
  - Course description (preliminary syllabus),
  - Recommend Lists of Required Textbooks, Essential References Materials (Journals, Reports, etc.), Recommended Textbooks and Reference Material (Journals, Reports, etc.), Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.), and other learning material such as computer-based programs/CD, professional standards or regulations and software.
- A committee collects learning resources of all courses and submits the required lists to the Head of the department to get the approbation of the department council.

- After the department council approbation, the Department Head asks the College Dean to provide the Required lists of Learning Resources through the University Central Library and/or the IT Deanship.

2. Facilities and Equipment

(Library, laboratories, classrooms, etc.)

For the planning and acquisition resources for library, laboratories, and classrooms the department proceeds as follows:

- Evaluation of the locals assigned for under graduated programs: Library (equipped with textbooks and references provided by the Central Library), Laboratories, and classrooms.
- In the shortage case of supplies a committee will report that to the Department Head in order to provide such supplies through the University Central Library and/or the IT Deanship.

3. Procedures to ensure a healthy and safe learning environment

(According to the nature of the program)

Procedures for a Healthy and Safe Learning Environment

- Physical Safety: Ergonomic classrooms, emergency plans, and equipment maintenance.
- Health and Well-Being: Access to mental health resources, wellness activities, and peer support.
- Inclusivity: Diversity training, anonymous feedback channels, and mentorship programs.
- Reporting Mechanisms: Designated contacts and simple incident reporting.
- Continuous Improvement: Regular surveys for feedback.

G. Program Quality Assurance:

1. Program Quality Assurance System

Provide a link to quality assurance manual.

First Link
Second Link

Program review and its development is periodically assessed through the following processes:

- Courses reports are submitted to the program manager every semester.
- Appropriate teaching staff committee is in the charge of assessment and modification.
- Prepare and monitor the annual program report.
- Conduct and analyze surveys opinion of the students about the courses and the program.
- Conduct and analyze surveys opinion of the employers about the program.
- Program manager reviews the proposals submitted by the previous committees and makes appropriate decision after approbation of the department council.
- Monitor a global review for the development of the program periodically each five years if necessary.

All the previous processes follow the Teaching\Learning Quality Assurance Process Diagram:

Figure 1 - Teaching\Learning Quality Assurance Process Diagram
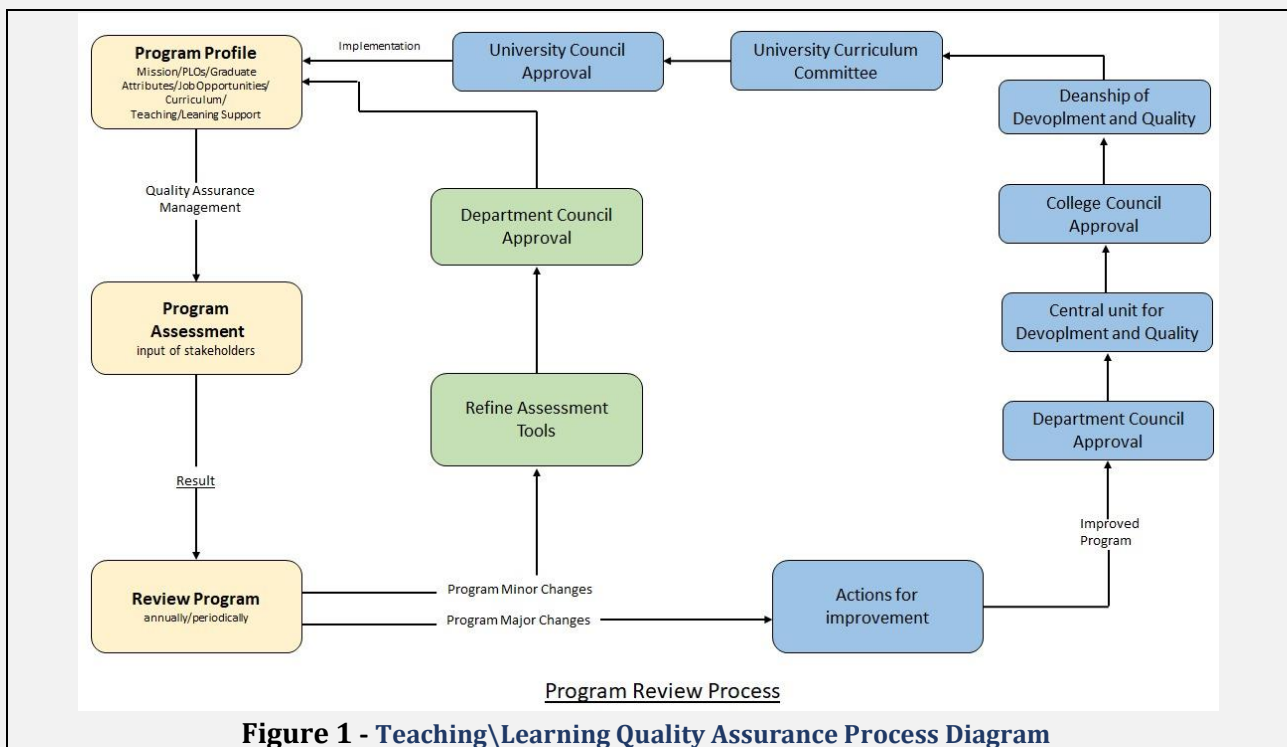
2. Procedures to Monitor Quality of Courses Taught by other Departments

- The course outlines are developed in consultation and in agreement with the concerned departments to ensure that the course content meets their needs.

- Communication and coordination with the relevant department (s) will be done in the future if any changes are needed.

- At the end of each semester the course instructor should complete a course report, including a summary of student questionnaire responses appraising progress and identifying changes (course contents and/or textbooks and/or references) that need to be made if necessary.

- Students are asked at the end of this course to fill the course survey. The forms will be analyzed, and the summary of results will be reported to the Department Head for evaluation and then to take actions.

There are three kinds of courses in the program taught by other departments:

▪ University requirements: to achieve the mission and goals of the institution as Islamic University.

▪ College requirements: to achieve the mission and goals of the College of Science.

▪ Program requirements: to ensure compliance to the program's mission.

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

- The department chooses a coordinator for each course and for each branch.
- The coordinators of branches insure that solved exercises are the same all branches.
- The midterm and final exams are common for all branches.
- The course report is unified for all branches.

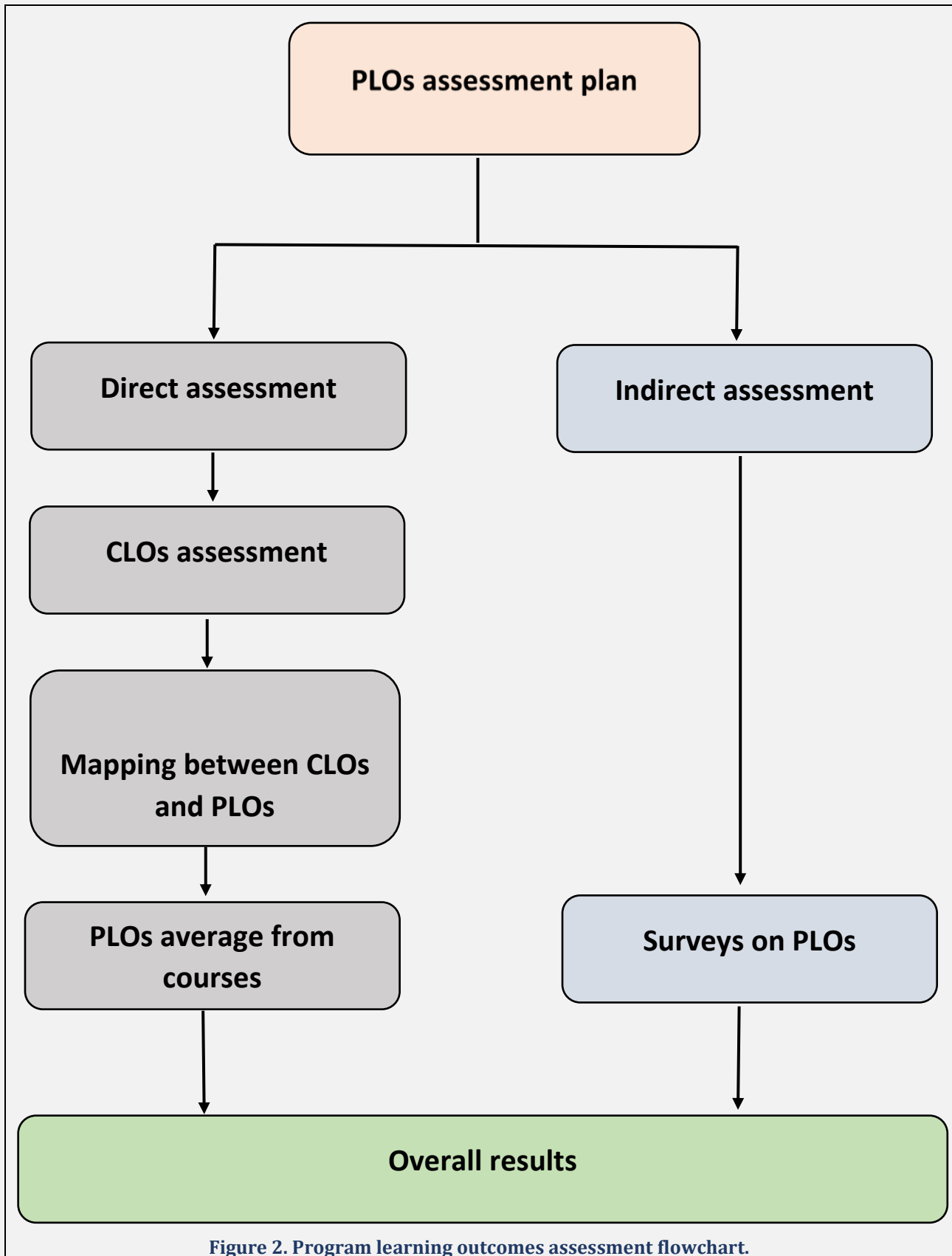## 4. Assessment Plan for Program Learning Outcomes (PLOs),

Figure 2. Program learning outcomes assessment flowchart.

Program direct assessment plan focused on the program courses.

Performance Indicators (PIs):

KPI attainment level	Range
Excellent	> 90
Adequate	≥80
Minimal	≥70
Inadequate	< 70

Table 1. Performance indicator with attainment level.

5. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Leadership	Dean	Evaluation report	End of academic year
Effectiveness of teaching & assessment	Program leader, faculty, independent reviewers, students	Surveys, interviews, visits	End of the term, during the term
Learning resources	Employers, faculty, graduates, students	Surveys, interviews	end of the term, during the term

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 (2024) year(s).

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
1	KPI-P-01	**Students' Evaluation of Quality of learning experience in the Program** (Average of the overall rating of final year students of the quality of learning experience in the program, satisfaction with the various services offered by the program (restaurants, transport, sports facilities, academic, vocational, psychological guidance...), student satisfaction with the adequacy and diversity of learning sources (references, periodicals, information databases... etc.) on a five-point scale in an annual survey.)	4.0 of 5.0	Annual student survey (5-point scale)	End of academic year
2	KPI-P-02	**Students' evaluation of the quality of the courses** (Average of students' overall rating for the quality of courses on a five-point scale in an annual survey.)	Average rating for (two semesters) of 4.0/5.0	Annual student survey (5-point scale)	End of each semester
3	KPI-P-03	**Completion rate** (The proportion of undergraduate students who completed the program in minimum time in each cohort)	85% completion in minimum time	Program records and tracking	Annually at graduation
4	KPI-P-04	**First-year students retention rate** (Percentage of first-year undergraduate students who continue at the program the next year to the total number of first-year students in the same year)	75% retention rate	Comparison of first-year enrollment to second-year enrollment	Annually after first-year completion
5	KPI-P-05	**Students' performance in the professional and/or national examinations** (Percentage of students or graduates who were successful in the professional and/or national examinations, or their score average and median (if any))	80% pass rate	Analysis of examination results	Annually after examination results are published
6	KPI-P-06	**Graduates' employability and enrolment in postgraduate programs** (Percentage of graduates from the program who within a year of graduation were: a. employed within 12 months,	70% employed or enrolled	Graduate follow-up survey and employment records	6 months post-graduation

		b. enrolled in postgraduate programs during the first year of their graduation to the total number of graduates in the same year.)			
7	KPI-P-07	**Employers' evaluation of the program graduates proficiency** (Average of the overall rating of employers for the proficiency of the program graduates on a five-point scale in an annual survey.)	**Average rating of 4.0/5.0**	**Annual employer survey (5-point scale)**	**Annually after graduation**
8	KPI-P-8	**Ratio of students to teaching staff** (Ratio of the total number of students to the total number of full-time and full-time equivalent teaching staff in the program)	**15:1 student-to-staff ratio**	**Program records**	**Annually**
9	KPI-P-9	**Percentage of publications of faculty members** (Percentage of full-time faculty members who published at least one research paper during the year to total faculty members in the program.)	**60% of faculty publishing**	**Faculty publication records**	**Annually**
10	KPI-P-10	**Rate of published research per faculty member** (The average number of refereed and/or published research per each faculty member during the year (total number of refereed and/or published research to the total number of full-time or equivalent faculty members during the year).	**1.5 publications per faculty member**	**Faculty publication records**	**Annually**
11	KPI-P-11	**Citations rate in refereed journals per faculty member** (The average number of citations in refereed journals from published research per faculty member in the program (total number of citations in refereed journals from published research for full-time or equivalent faculty members to the total research published)	**Average of 10 citations per faculty member**	**Citation analysis of published works**	**Annually**
12	KPI-P-12	**Graduate Satisfaction with Career Preparation** (The average rating)	**4.0 of 5**	**Annual graduate survey (5-point scale)**	**6 months post-graduation**
13	KPI-P-13	**Assessment of Students' Research Skills** (The average rating)	**4.0 of 5**	**Exit-survey**	**End of academic program**

*including KPIs required by NCAAA

H. Specification Approval Data:

Council / Committee	**Quality Unit-Physics Department**
Reference No.	**Department council No. 6**
Date	**September, 26, 2024**