هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

2023
TP-151

Program Specification
(Bachelor)

Program:	**Bachelor of Science in Biology [B.Sc., Biology]**
Program Code (as per Saudi university ranking):	**BIOL**
Qualification Level:	6TH [Consistency With National Qualifications Framework]
Department:	Biology
College:	College of Science
Institution:	Majmaah University
Program Specification:	New ☐ updated* ☒
Last Review Date:	2/7/23

*Attach the previous version of the Program Specification.

Table of Contents

A. Program Identification and General Information

1. Program's Main Location :

Al Zulfi, Majmaah University

2. Branches Offering the Program (if any):

Nil [Only in Al Zulfi]

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

Nil

4. Professions/jobs for which students are qualified

- As a teacher in Public education in the schools.
- As a demonstrator, technician and lecturer in the universities.
- Students can work as a 'laboratory technician' in the Ministry of Agriculture in many areas such as soil laboratories, water, plant and animal wealth.
- Can get opportunity as a 'Laboratory technician, Junior analyst' in the hospital laboratories.
- They can work as a 'quality controller officer' in the Food packaging factories, pharmaceutical companies and water industries.
- They can work as a supervisor/officer in hatcheries and animal husbandries.
- They can work as a laboratory staff/ technician in Ministry of Environment and Ministry of Municipal and Rural Affairs.
- Technician/ laboratory analyst in Water and Sanitation labs
- Administrative staff in 'Meteorology and Environmental Protection sectors'
- They can work as an 'Administrative staff', research analyst in 'The National Commission for Wildlife Conservation'.

5. Relevant occupational/ Professional sectors:

- Teaching jobs in schools and colleges
- Industrial jobs as biologist in quality control of food, water, pharmaceutical products
- Biologist in medical laboratories
- Supervisor / biologist in bird hatcheries and animal husbandries.

6. Major Tracks/Pathways (if any):		
Major track/pathway	**Credit hours** (For each track)	**Professions/jobs** (For each track)
1.	Not applicable	
2.		
3.		
…		

7. Exit Points/Awarded Degree (if any):	
exit points/awarded degree	**Credit hours**
1.	Not applicable
2.	
3.	

8. Total credit hours: (136 hours)

B. Mission, Objectives, and Program Learning Outcomes

1. Program Mission:

Qualify national cadres capable of competing in the labor market in the field of biological sciences; meeting the requirements of sustainable environment development; and contributing to biological research and community service.

2. Program Goals:

1. Apply various general education competencies through the study of Biology.
2. Apply their knowledge in modern industry or teaching in high-quality graduate programs in Biology.
3. Learn and explain biology within a professional, legal and ethical responsibility

3. Program Learning Outcomes*

Knowledge and Understanding	
K1	Recognize the basic concepts, principles, scientific terminologies and facts in all major biological disciplines and other related sciences.
K2	Outline the different biological processes of the living organisms showing the adaptation to the environment
K3	Gain basic knowledge on identification, routine procedures and technical requirements of different scientific tools and equipment.
Skills	
S1	Apply biological concepts using integration of academic knowledge and professional skills in biological sciences
S2	Investigate relatively complex scientific problems, facts and opinions using a range of knowledge extension to recommend classical or innovative solutions with limited guidance.
S3	Demonstrate functions of macromolecules (e.g. DNA, proteins, lipids etc.,) in different biological systems and their applications
S4	Use perfectly the living specimens, slides and instruments in the biological experiments
Values, Autonomy, and Responsibility	
V1	Exhibit ethical and professional responsibilities to scientific problems.
V2	Communicate effectively individually and in groups inside and outside the university.

* 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	3	6	4.41%
	Elective	3	6	4.41%
College Requirements	Required	6	18	13.24%
	Elective	1	2	1.47%
Program Requirements	Required	33	88	64.71%
	Elective	2	4	2.94%
Capstone Course/Project		1	3	2.2%
Field Training/ Internship		1	3	2.2%
Residency year				
Others	Free courses	3	6	4.4%
Total		**53**	**136**	**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 requirement
1st Year Semester 1						
Level 1		University Course	Required	-	2	University
		University Course	Required	-	2	University
	SENG-101	Scientific English	Required	-	3	College
	BIOL-101	General Biology	Required	-	3	College
	CSI-101	Introduction to Computer Science	Required	-	3	College
	CHEM101	General Chemistry-1	Required	-	3	College
		College Elective	Required	-	2	College
1st Year Semester 2						
Level 2		University Course	Required	-	2	University
	PHYS-101	General Physics-1	Required	-	3	College
	BIOL-102	Cell Biology	Required	BIOL-101	3	Department
	BIOL-111	Animal Physiology	Required	BIOL-101	3	Department
	BIOL-112	Invertebrates	Required	BIOL-101	3	Department
	BIOL-121	Plant Anatomy & Morphology	Required	-	3	Department
2nd Year Semester 1						
Level 3		University Course	Required	-	2	University
	BIOL-213	Vertebrates	Required	BIOL-101	3	Department
	BIOL-214	Animal Histology	Required	BIOL-102	3	Department
	CHEM-211	Organic Chemistry	Required	CHEM-101	3	Department
	BIOL-222	Plant Taxonomy	Required	BIOL-121	2	Department

	BIOL-241	Ecology	Required	-	2	Department
	MATH131	Basis of Mathematics	Required	-	3	College
2nd Year Semester 2						
Level 4		University Course	Required	-	2	University
	BIOL-223	Plant Physiology	Required	BIOL-222	3	Department
	BIOL-215	Comparative Anatomy	Required	BIOL-213	3	Department
	BIOC-221	Biochemistry	Required	CHEM-211	3	Department
	BIOL-231	General Microbiology		BIOL-101	3	Department
	BIOL-242	Environmental pollution	Elective	-	2	Department
	BIOL-243	Biodiversity	Elective	-	2	Department
3rd Year Semester 1						
Level 5		University Course	Required	-	2	University
	BIOL-316	Entomology	Required	BIOL-112	3	Department
	BIOL-344	Plant Ecology	Required	BIOL-223	3	Department
	BIOL-332	Bacteriology	Required	BIOL-231	3	Department
	BIOL-333	Mycology	Required	BIOL-231	3	Department
	BIOL-351	Genetics	Required	BIOL-102	3	Department
3rd Year Semester 2						
Level 6	BIOL-334	Virology	Required	BIOL-231	2	Department
	BIOL-335	Parasitology	Required	BIOL-231	3	Department
	BIOL-361	Instrumentation & Microscopic Preparations	Required	BIOL-101	2	Department
	BIOL-345	Animal Ecology & Behavior	Required	BIOL-241	3	Department
	BIOL-352	Molecular Biology	Required	BIOL-351	3	Department
	BIOL-317	Marine Biology	Required	BIOL-112 BIOL-213	3	Department
4th Year Semester 1						
Level 7	BIOL-436	Immunology	Required	BIOL-231	4	Department
	BIOL-446	Epidemiology	Required	BIOL-332	3	Department
	BIOL-453	Genetic Engineering	Required	BIOL-351	3	Department
	BIOL-471	Graduation Project (theoretical part)	Required	Pass 60 Units	2	Department
	BIOL-447	Eco-physiology	Elective	-	2	Department
	BIOL-425	Medicinal & Economical Plants	Elective	-	2	Department
4th Year Semester 2						
Level 8	BIOL-454	Applied Biotechnology	Required	BIOL-453	3	Department
	BIOL-455	Bioinformatics	Required	BIOL-352	3	Department
	BIOL-418	Animal Taxonomy	Required	BIOL-215	2	Department
	BIOL-419	Embryology	Required	BIOL-215	3	Department
	BIOL-472	Graduation Project (Practical)	Required	BIOL-471	2	Department

* 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)

All courses in biology program prepared as per NCAAA guidelines 2023 and uploaded in the following weblink.

6.2 Course Specifications

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	K3	---	S1	S2	S3	S4	V1	V2	----
SENG 101	I				I				I		
BIOL 101	I				I				I		
CHEM 101	I				I				I		
CSI101	I	I			I				I		
PHYS101	I				I			I	I		
BIOL102	I						I	I	I		
BIOL 111	I					I		I	I		
BIOL112	I				I			I	I		
BIOL121		I				I		I	I		
BIOL 213		I			I			I	I		
BIOL 214								I	I		
CHEM211	I				I			I	I		
BIOL 222	I				I				I		
BIOL241	I	I			I				I		
MATH231	I		I		I			I			
BIOL 223		I			I			I	I		
BIOL 215		I				I		I	I		
CHEM 221	I				I			I	I		
BIOL231		I			I			I	I		
BIOL242	I				I				I		
BIOL 243		I			I				I		
BIOL 316		P			P			P		P	
BIOL 344		P			P			P		P	
BIOL 332			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	----
BIOL 333			P			P		P		P	
BIOL 351			P				P	P		P	
BIOL 334		P					P			P	
BIOL 335			P				P	P	P		
BIOL 361			P			P		P	P		
BIOL 345		P			P				P		
BIOL 352			P				P	P		P	
BIOL 317		P			P			P		P	
BIOL 473			P				P	P		P	
BIOL 436			M				M	M		M	
BIOL 446		M					M	M		M	
BIOL 453			M				M	M		M	
BIOL 471			M		M				M		
BIOL 447			M			M				M	
BIOL 425			M		M					M	
BIOL 481	M				M				M		
BIOL 482		M			M					M	
BIOL 454			M				M	M		M	
BIOL 455			M				M	M		M	
BIOL 418		M			M				M		
BIOL 419			M				M	M		M	
BIOL 472							M	M		M	
BIOL 484		M			M				M		
BIOL 483	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.

Educational activities supporting the achievement of learning Outcomes.									
Teaching Strategies	**PLOs**								
	K1	**K2**	**K3**	**S1**	**S2**	**S3**	**S4**	**V1**	**V2**
Lecture	√	√	√						
Discussion				√	√	√			
Brain Strom				√	√	√			
Teamwork								√	
Online (Blackboard)	√	√	√	√	√	√			
Solve problems					√				
Case study				√	√				
Projects	√	√	√	√	√	√		√	√
Labs /Reports							√		
Training courses or workshop						√	√	√	√
Volunteer work								√	√

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).

Direct Assessment methods:

Direct assessment involves looking at actual samples of student work produced in our programs. These include exams, quizzes, assignments and reports etc.,
The direct assessment method can be used to measure the achievement of PLOs in all areas, which are tabulated below

Direct Assessment Methods of Program Learning Outcomes									
Assessment Methods	**PLOs**								
	K1	**K2**	**K3**	**S1**	**S2**	**S3**	**S4**	**V1**	**V2**
Final Exam	√	√	√	√	√	√			
Mid-Terms	√	√	√	√	√	√			
Quizzes	√	√	√	√	√	√			
E-Exam	√	√	√	√	√	√			
Assignments	√	√	√	√	√	√		√	
Power Points				√	√	√			√
Practical Exam							√		
Lab Reports							√		
Research/Projects							√	√	√
Scientific Essays								√	√
Volunteer's hours								√	√

Indirect Assessment Methods:

Assesses the stakeholders (employers, students, employees, alumni etc.,) rating towards the program quality and graduate's performance – are called 'Indirect assessment'. The indirect assessment methods are listed below

Indirect Assessment Methods of Program Learning Outcomes									
Indirect Assessment Methods	**PLOs**								
	K1	**K2**	**K3**	**S1**	**S2**	**S3**	**S4**	**V1**	**V2**
Course evaluation survey	√	√	√	√	√	√	√	√	√
Program evaluation survey	√	√		√	√	√	√	√	
Alumni survey (Graduated students)	√	√	√	√		√	√		
Employers Survey	√	√	√	√	√	√		√	√

D. Student Admission and Support:

1. Student Admission Requirements

The initial enrolment of students for the biology program is done at the beginning of each semester in the academic year. The enrolment in the program is completely online, the students apply
through the deanship of student's admission and registration website. Based on their eligibility and availability of seats, the students are then assigned to different colleges and departments.

General Requirements for Admission: Majmaah University (MU) has central policies and procedures for admitting and following up the progress of all students throughout the university. [For more details - http://mu.edu.sa/en/deanships/deanship-admission-and-registration]

The following are admission requirements stipulated for the admission
of the new student:

- An applicant for admission must have a Saudi Secondary School Certificate - Science Section (SSSCSS) or its equivalent.
- The secondary school certificate should not be more than five years old and the Rector of the University may give exemption from this condition.
- The minimum qualifying scores in SSSCSS – 60%
- Must not have been dismissed from another university for disciplinary reasons.
- When applicants exceed availability, priority is given to the students with higher grades.

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).

First week of every semester, we conduct orientation program for new students, which includes

- General introduction of faculty members
- Class room visits
- Laboratory visits
- Library visits
- Students rights
- Explanation of teaching methodologies and study plan
- Meeting with head of the department

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).

- Meeting of the head of department with new students.
- Give counseling to the students.
- A weekly office schedule is displayed on each faculty member's office and a total of 10 hours are specified for the students to provide them extra assistance and help in solving their academic problems.
- A follow-up committee exists in the department to look after the needs of the teaching assistant's scholarship holders and the meritorious students.

4. Special Support

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

Special support for Talented / high grade students:

- The head of the Biology program and student's activities committee members select the best students those who got high GPA grades and give awards to them.
- Talented students encouraged and displaying the department handbook on the website of the department
- Deanship of student's affairs from the faculty will give awards/cash prize who achieved in national and international level competitions.

Special support for Low achievers:

- Give an advice periodically with help of 'Academic advising' unit and improve their grades.
- Students rights committee members will support to low achievers and try to solve their issues.

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	-	**1**	Environmental Sciences	1	-	1
Associate Professor	-	-	-	-	-	-
Assistant Professor	-	-	-	-	-	
Lecturer	-	-	-	-	-	-
Teaching Assistant	-	-	-	-	-	-
Technicians and Laboratory Assistant	-	**5**	Botany, Zoology, Ecology	3	2	5
Administrative and Supportive Staff	-	**1**	Botany, Zoology, Ecology	1	-	1
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.)

- Texts and references are chosen by specialized committees in the department and finally approved in the departmental meeting. [More details - https://majmaah-my.sharepoint.com/:x:/g/personal/md_khalaf_mu_edu_sa/EZCBlaRW38BKuCCBDbY7wUgBb7nfeREfiKyqm2eU1F2QLw?e=ZuaXYb]
- These texts and references are made available in an appropriate time by the book shop and the central library.
- Through writing original text books or translation of some standard books by the faculty members.
- Faculty members created a e-library which contains list of books and all updated in 'blackboard' portal to get easy access to students
- Faculty members prepared a short note books with question banks and laboratory manual for their courses

- Web based learning resources which related to the courses and biological research (Pub med ,Elsevier, Research gate etc) regularly updated by the 'Knowledge resource unit' and faculty members

2. Facilities and Equipment

(Library, laboratories, classrooms, etc.)

We have full equipped following facilities

- Classroom with e-podium (audio – video visuals)
- Laboratories – The department has the following well equipped laboratories to meet the academic and research requirements of students and teachers as well as the professional needs of the government and private organizations.
  - Botany Lab
  - Zoology Lab
  - Microbiology Lab
  - Molecular biology lab
  - Marine biology Lab
  - Ecology Lab
  - Genetic engineering and Biotechnology Lab
  - Chemistry Lab

- Library – Full-fledged library with various disciplines of biological sciences books available in the library. Our program 'library and knowledge resources unit' regularly conduct the meeting to improve the facilities with more books.

3. Procedures to ensure a healthy and safe learning environment

(According to the nature of the program)

- To maintain a healthy and safe environment within the Majmaah university (MU) facilities, MU established an administration belonging to the vice rector, this is general administration for University Safety and security. This administration is keen to promote the ways to prevent any accidents, hazards and security issues in buildings and other facilities and keep up with modern technologies. It is also working on the provision of periodic examination and preventive safety measures to maintain the university installations and facilities and their contents.

Laboratory and Information technology committee:

- Our college maintain healthy and safe environment in the laboratories by following 'Occupational health and Safety management system' (OHSAA 18001:2007) guidelines. For ensuring the quality assurance within the biology program laboratories, the college established one unit belonging to the vice deanship of scientific research called the 'Laboratory safety and Information technology committee. Also, the departments established labs. committees to cooperate with

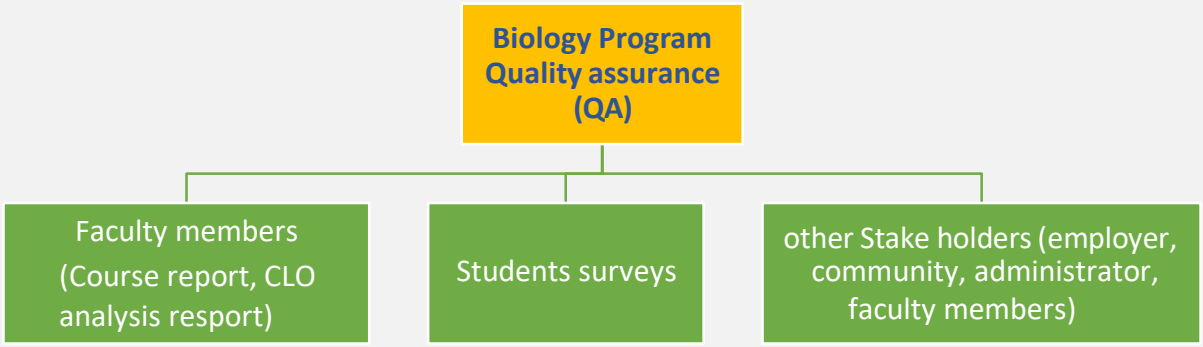
that unit. Each laboratory is equipped with the required safety facilities; emergency phone numbers, personal protective equipment, general safety signs and instructions, specific safety instructions and safety labels, fire alarms, fire extinguishing equipment (blankets, sand buckets, fire extinguisher can), and first-aid equipment. Also, there are emergency exits very close to the laboratories.

- The committee members conduct frequent meeting, seminar and awareness program to students, faculty members about laboratory safety and good laboratory practices.

G. Program Quality Assurance:

1. Program Quality Assurance System

Provide a link to quality assurance manual.



Faculty/Course coordinators in QA

- At the beginning of each semester, the course coordinators are decided and provided with the approved course specification to be taught.
- This course specification along with assessment rubrics and any other relevant information are provided to all the students taking that course.
- One of the main responsibility of the course coordinator is to ensure the timely and uniform delivery/assessment of the course at all the sections it is being taught in that particular semester.
- The course coordinator after consultation with all the teachers send recommendations in the course report regarding revision of the course learning outcome, revision of the assessment mode, modification of course content, requirements for special tools/equipment for implementing the course objectives or any other difficulty faced during that semester.
- This course report is then deliberated upon by the Academic Advisory Committee, Quality Assurance Committee and the Department council.

- If required, an internal/external expert committee is constituted for course evaluation.

Stakeholders involvement in QA

- Annually as part of indirect assessment of learning outcomes, various surveys are conducted to take the opinion of all the stakeholders; including, the student, faculty, employers, administrators and the community.
- Based on these recommendations if required the department council sends a request for modification in the aforesaid course to the College/University Council.
- The students are providing details of the course objectives and specification at the beginning of the semester.
- The students provide their feedback, suggestions and opinions in various surveys conducted by the quality assurance unit.
- The feedback is also obtained from students during the Final exams to receive the opinions about the Question papers after the completion of respective exams.

The above said points were strictly followed to ensure the quality assurance of the program.

More details about 'Quality assurance –manual' , Please visit the following link
5.1 Program Quality System Manual

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

The Students at Biology program need to take, Preparatory year Course, University Requirements courses & College elective courses. These courses are offered by Deanship of Preparatory Year, other colleges, and departments.

To ensure the course confirms to the program needs, the following steps are taken/proposed.

- Preparation & review of Course Specification in consultation with the program coordinators. (Proposed)
- Approval of Course report & Evaluation by department coordinator. (Proposed)
- Scheduled meeting with the course instructor and the respective departments for effective implementation of the course each semester. (Existing)

Quality of course taught by other department can be analyzed by verifying the CLOs reports and refer the data of following software's

- https://xamgate.web.app/
- https://edugate.mu.edu.sa/mu/ui/home.faces
- https://csz-mu.web.app/dashboard : Quality analysis called qgate

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

- To ensure the uniformity the program assigns a course coordinator at beginning of each semester. (Council #2; 1445)
- The coordinator along with the course team in all the sections prepares the course specifications, assessment schedule and study materials, including blueprint and lecture objectives, lab/clinical objectives, to ensure uniform delivery & assessment of course in all the section.
- The assessment measures are designed to evaluate the effectiveness of teaching methods for delivering the intended program outcomes.[**Annexure 1]**
- A range of assessments strategies that matches all aspects of the instructional plans are being used for different courses. The assessment strategies are planned to match the PLOs. [**Annexure 1]**
- The selection of appropriate assessments also matches courses and program objectives.
- All the courses of the biology program have specific learning objectives that are aligned with the program outcomes. Each course has 3-5 specific course outcomes, which are evaluated by appropriate assessment methods. Both direct and indirect assessment techniques are utilized to ensure that the desired program outcomes are achieved. (attach the matrix of PLOs and CLOs) [**Annexure 2]**
- The process of assessment is carried out by using a combination of course work such as quizzes, exams, projects, presentations, homework, etc., Where the grades on these exercises are directly tied to the course outcomes.
- The uniform pattern and similar questions were used in the final exam for both male and female sections.

4. Assessment Plan for Program Learning Outcomes (PLOs)

- The Biology Program assesses and evaluates the extent to which its learning Outcomes (Los) are being met using a variety of instruments and methods on a regular basis. These procedures are used to collect the data needed for evaluation. After that, evaluation in the form of data interpretation is carried out to see how effectively the outcomes are being met. Finally, the results of both the assessment and evaluation processes are used to improve the program on a continuing basis. The assessment, evaluation, and feedback stages for the program's continuous improvement follow the three steps below:

- The LOs' assessment tools (i.e., collecting relevant data) are either direct or indirect. Direct assessments of LOs are generally based on course work, whereas

indirect assessments are usually based on questionnaires. This step includes designing survey forms and questions that are appropriate for the specific and applicable date.

- The evaluation (interpreting) processes are then followed by analysing and comparing the data to a pre-set performance indicator, as well as reviewing those areas that scored relatively low.

The biology program's Assessment and Evaluation Plan (AEP) aims to evaluate all learning outcomes over the courses of two semesters in the academic years (1445-46).

- **Analysis frequency:** Once in a year [Will combine a data of semester 451 and 452]

5. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Achievement of mission and goals of the program	Students, graduates, alumni, faculty, program heads, administrative staff, employers, Students advisory committee	Surveys, Data analysis KPIs	Once in the year
Students' Evaluation of Quality of learning experience in the Program	Final year Students	Surveys,	End of the academic year
Students' evaluation of the quality of the courses	All Students	Surveys Course report	Annual
Learning resources, facility and equipment	Students, faculty	Surveys, KPI report	End of the academic year
Average of the overall rating of employers for the proficiency of	Employers	Survey KPI report	Annual

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
the program graduates			
Student administration and support services	Students, graduates, alumni, faculty	Surveys, Data analysis KPIs	End of the academic year
Effectiveness of PLOS	Report	PLOs report	End of each semester
Graduate employability	Graduates, interview, employers, advisory committee	Surveys, Data analysis Interviews, KPIs	End of the academic year
Faculty and staff employment processes	Faculty, program heads, advisory committee	Surveys, Interview, Data analysis and KPIs	End of the academic year
Program evaluation	Students, graduates, alumni, faculty, administrative staff, employers, independent reviewers	Surveys, interview, visits, data analysis PLOs report	End of the academic year
Research and community services	Students, graduates, program heads, alumni, faculty, administrative staff, employers, independent reviewers	Data analysis and KPIs	End of the academic year
Field training	Students	survey	End of each semester

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 (1445-46) 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	3.8 out of 5	Program evaluation survey with students	End of academic year
2	KPI-P-02	Students' evaluation of the quality of the courses	3.6 out of 5	Program evaluation survey with students	End of semester
3	KPI-P-03	Completion rate	40%	Data of graduated students	End of academic year
4	KPI-P-04	First-year students retention rate	50%	Data of graduated students (1st year)	End of academic year
5	KPI-P-05	Students' performance in the professional and/or national examinations	NA	Survey from Final Graduated Data	NA
6	KPI-P-06	Graduates' employability and enrolment in postgraduate programs	30%	Survey from the Graduated students	End of academic year
7	KPI-P-07	Employers' evaluation of the program graduates proficiency	NA	NA	NA
8	KPI-P-8	Ratio of students to teaching staff	15:1	Data from List of faculty & Student	End of academic year
9	KPI-P-9	Percentage of publications of faculty members	60%	Data from the faculty research profile	End of academic year
10	**KPI-P-10**	Rate of published research per faculty member	2:1	Data from the faculty research profile	End of academic year

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
11	**KPI-P-11**	Citations rate in refereed journals per faculty member	5:1	Data from the faculty research profile	End of academic year
12	MU-P01	Proportion of full-time teaching and other staff actively engaged in community service activities.	55%	Data from community service unit	End of academic year
13	MU-P02	Proportion of students have one notification or more	3%	Data from e-register	Each semester
14	MU-P03	Proportion of deprived students	3.5	Data from e-register	Each semester
15	MU-P04	The number of student's research	5	Data from Scientific research unit	Each semester
16	MU-P05	Percentage of teaching staff participating in professional development activities.	75%	Data from quality unit - Department	End of the year
17	KPI-BIO1	Stakeholder evaluation ratings of the Mission Statement and Objectives	4	Survey by quality member	End of the year

*including KPIs required by NCAAA

H. Specification Approval Data:

Council / Committee	**7th /Biology Department Council**
Reference No.	**7th**
Date	**10/10/2023 [25/03/1445H]**