Program Specification

(Bachelor)

Program:	***Bachelor of Science in Biology***
Program Code (as per Saudi university ranking):	***051***
Qualification Level:	***6th Level.***
Department:	***Department of Biology***
College:	***Faculty of Science***
Institution:	***University of Tabuk***
Program Specification:	New ☐ updated* ☒
Last Review Date:	***September 2023***

*Attach the previous version of the Program Specification.

Table of Contents

A. Program Identification and General Information

1. Program's Main Location:

Department of Biology, Faculty of Science, University of Tabuk (Main Campus, Male & Female Sections), Tabuk City.

2. Branches Offering the Program (if any):

- University College of Haql, University of Tabuk, Haql City.
- University College of Tayma, University of Tabuk, Tayma City (Currently Closed).
- University College of Umluj, University of Tabuk, Umluj City.

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

Not applicable.

4. Professions/jobs for which students are qualified

- **Graduated students from the biology program can work in various organizations working in the field of biological sciences.**
- **At the end of the program, students may be capable to work as:**

(According to the Saudi Standard Classification of Occupation pages 45-66, General Authority for Statistics / The second Major group: Professionals).

Job Description	Code
Biological Sciences Specialist	213101
Biotechnology Specialist	213104
Botanist	213105
Zoologist	213106
Marine Biologist	213107
Entomologist	213108
Genetic Specialist	213110
Embryologist	213111
Bacteriologist	213112
Epidemiologist	213113
Microbiologist	213114
Practicing Teacher	23300102
Teaching Assistant	231027

5. Relevant occupational/ Professional sectors:

- Educational Sector (Schools and Universities).
- Ecological Sector.
- Natural Reserves (Natural center for wildlife).
- Medical Sector.
- Biotechnology Sector.

6. Major Tracks/Pathways (if any): **Not applicable**

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

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

exit points/awarded degree	**Credit hours**
1.	
2.	
3.	

8. Total credit hours: **138 Hours**

B. Mission, Objectives, and Program Learning Outcomes

1. Program Mission:

Providing a distinguished academic program in biological sciences within a stimulating educational environment to graduate qualified cadres with knowledge and skills that meet the needs of the labor market and support innovation, scientific research, and the needs of community.

2. Program Goals:

- Developing a stimulating academic environment that meets the needs of the beneficiaries of the biology program.
- Graduating distinguished cadres in the fields of biology, environment and biotechnology in a manner consistent with the needs of the labor market.
- Strengthening the scientific research system in the field of biology and innovation to develop the educational process and contribute to societal issues.
- Developing community partnerships to raise community awareness and action regarding the sustainability of the environment.

3. Program Learning Outcomes*

Knowledge and Understanding: **Upon successful completion of this Biology Program, the students will be able to:**	
K1	Illustrate the knowledge and comprehensive of basic biological principles, concepts and theories including their applications in different aspects.
K2	Describe methods for analyzing and solving problems in the field of Biology and Environmental Sciences.
Skills: **Upon successful completion of this Biology Program, the students will be able to:**	
S1	Apply fundamental principles to the analysis of relevant biology and environmental issues.
S2	Carry out the experimental techniques appropriate for different fields and specializations within biology.
S3	Evaluate literature critically to be utilized in evidence-based practice and conducting research.
S4	Apply effectively the up-to-date technologies in different biological field.
S5	Solve problems in various complex contexts in one or more disciplines related to the field of Biology.
S6	Communicate effectively using oral, written, and visual modes to science-literate and general audiences.
Values, Autonomy, and Responsibility: **Upon successful completion of this Biology Program, the students will be able to:**	
V1	Demonstrate the ability to work independently and as a member, or as a team leader in the group in accordance with the rules that guide professional decisions.
V2	Show ethical conduct in scientific research, professional fields, and community tasks.

* 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	18.84
	Elective	5	13	9.42
College Requirements	Required	6	15	10.87
	Elective	0	0	0
Program Requirements	Required	23	69	50.00
	Elective	3	9	6.52
Capstone Course/Project		1	3	2.17
Field Training/ Internship		1	3	2.17
Residency year				
Others				
Total		**49**	**138**	

* 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	اللغة الإنجليزية ١ English 1	Required	-	3	Institution
	MATH1101	مقدمة فى الرياضيات Introduction to Mathematics	Required	-	3	Institution
	CID1101	مهارات الاتصال Communication Skills	Required	-	2	Institution
	CSC1102	حل المشكلات بالحوسبة Problem Solving in Computing	Required	-	3	Institution
	ISLS1101	الثقافة الاسلامية بين الأصالة والمعاصرة Islamic Culture between Authenticity and Contemporary	Required	-	2	Institution
	CHEM1101	أساسيات الكيمياء	Required	-	3	College

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
		Fundamentals of Chemistry				
Level 2	PHYS1101	اساسيات الفيزياء Fundamentals of Physics	Required	-	3	College
	BIO1101	أساسيات علم الأحياء Fundamentals of Biology	Required	-	3	College
	ELS1102	اللغة الإنجليزية ٢ English 2	Required	ELS1101	3	Institution
	MATH1102	حساب التفاضل Differential Calculus	Required	MATH1101	3	Institution
	ARAB1101	مهارات اللغة العربية Arabic Language Skills	Required	-	2	Institution
	EDUF1102	مهارات التفكير الناقد وتطبيقاته المعاصرة Critical Thinking and its Contemporary Applications	Required	-	3	Institution
Level 3	BIO1201	مبادئ الاستدامة البيئية Principles of Environmental Sustainability	Required (Explor1)	-	2	College
	BIO1202	مبادئ علم البيئة Principles of Ecology	Required	BIO1101	3	Program
	(GEE_L)	(مقرر اختياري لغات) Elective Languages Course	Elective	-	3	Institution
	BIO1203	بيولوجيا الخلية والأنسجة Cell and Tissue Biology	Required	BIO1101	3	Program
	BIO1204	اللافقاريات Invertebrates	Required	BIO1101	3	Program
	CHEM1202	الكيمياء العضوية ١ Organic Chemistry 1	Required	CHEM1101	3	Program
	PHYS1206	الموارد الطبيعية Natural Resources	Required (Explor1)	-	2	College
	BIO1205	علم النبات العام ١	Required	BIO1101	3	Program

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 4		General Botany 1				
	BIO1206	علم الأحياء الدقيقة العام General Microbiology	Required	BIO1101	3	Program
	ISLS1201	الاخلاق والقيم الحضارية في الإسلام Ethics and Civilization Values in Islam	Required	ISLS1101	2	Institution
	BIO1207	الفقاريات Vertebrates	Required	BIO1204	3	Program
	BIO1208	التنوع الأحيائي Biodiversity	Required (Explor1)	-	2	College
	(GEE_T)	(مقرر اختياري تقنية) Elective Technology Course	Elective	-	3	Institution
	(GEE_S)	(مقرر اختياري علوم طبيعية واجتماعية) Elective Natural and Social Sciences Course	Elective	-	3	Institution
Level 5	BIO1301	علم النبات العام ٢ General Botany 2	Required	BIO1205	3	Program
	BIO1302	علم الحشرات العام General Entomology	Required	BIO1204	3	Program
	BIO1303	علم البكتريا Bacteriology	Required	BIO1206	3	Program
	BIO1304	التلوث البيئي Environmental Pollution	Required (Explor2)	BIO1201 BIO1202	3	Program
	BIO1305	الوراثة العامة General Genetics	Required	BIO1203	3	Program
	BIO1306	فسيولوجيا الحيوان Animal Physiology	Require	BIO1207	3	Program
Level 6	(GEE_C)	(مقرر اختياري ثقافات) Elective Cultures Course	Elective	-	2	Institution

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
	BIO1307	فلورا المملكة العربية السعودية Flora of KSA	Required (Explor2)	BIO1208 BIO1301	3	Program
	BIO1308	علم الطفيليات Parasitology	Required	BIO1204	3	Program
	BIO1309	بيولوجيا جزيئية Molecular Biology	Required	BIO1305	3	Program
	BIO1310	فسيولوجيا النبات Plant Physiology	Required	BIO1301	3	Program
	(GEE_P)	(مقرر اختياري مهارات (شخصية ومهنية) Elective Professional and Personal Development	Elective	-	2	Institution
	BIO1311	علم المناعة Immunology	Required	BIO1206 BIO1306	3	Program
Level 7	BIO1401	مكافحة عامة General Control	Required	BIO1302	3	Program
	BIO1402	علم الأحياء البحرية Marine Biology	Required (Explor2)	PHYS1206 BIO1207	3	Program
	BIOC1403	المعلوماتية الحيوية Bioinformatics	Required	BIO1309	3	Program
	BIOC1404	التقنية الحيوية Biotechnology	Required	BIO1309	3	Program
	BIO1498	مشروع Project	Required	BIO1309	3	Program
	BIO140X	مقرر اختياري Elective Course	Elective	-	3	Program
Level 8	BIO1495	تدريب Training	Required	BIOC1403	3	Program
	BIO141X	مقرر اختياري Elective Course	Elective	-	3	Program
	BIO141X	مقرر اختياري Elective Course	Elective	-	3	Program

* Include additional levels (for three semesters option or if needed).

** Add a table for the courses of each track (if any)

Department Elective Courses

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 7	BIO1403	علم الطحالب Phycology	Elective	BIO1301 BIO1206	3	Program
	BIO1404	تصنيف النباتات الزهرية Taxonomy of Flowering Plants	Elective	BIO1301	3	Department
	BIO1405	فسيولوجيا الأحياء الدقيقة Physiology of Microorganisms	Elective	BIO1206	3	Department
	BIO1406	تحضير عينات حيوانية Animal Specimen Preparation	Elective	BIO1207	3	Department
	BIO1407	علم أمراض النبات Plant Pathology	Elective	BIO1310	3	Department
	BIO1408	حفظ وإدارة المحميات الطبيعية Natural Reserves (Conservation and Management)	Elective	BIO1202	3	Department
	BIO1409	بيئة وسلوك الحيوان Animal Ecology and Behavior	Elective	BIO1207	3	Department
Level 8	BIO1410	علم الوبائيات Epidemiology	Elective	BIO1206	3	Department
	BIO1411	نباتات طبية واقتصادية Medicinal and Economic Plants	Elective	BIO1301	3	Department
	BIO1412	علم الأجنة Embryology	Elective	BIO1207	3	Department
	BIO1413	علم الفطريات Mycology	Elective	BIO1206	3	Department

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
	BIO1414	علم الحشرات الطبية والزراعية Medical and Agricultural Entomology	Elective	BIO1302	3	Department
	BIO1415	فسيولوجيا اجهاد النبات Plant Stress Physiology	Elective	BIO1310	3	Department
	BIO1416	المعالجة الحيوية للملوثات Bioremediation of Pollutants	Elective	BIO1206 CHEM1202	3	Department

3. Course Specifications:

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

https://drive.google.com/drive/folders/1LjIyaaWh5QqSKBWVZavMI2C78VwuoTV6?usp=drive_link

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	S6	V1	V2	----
ELS1101							I			I	I	I	
MATH1101		I					I			I	I	I	
CID1101							I			I	I	I	
CSC1102							I			I	I	I	
ISLS1101							I			I	I	I	
ARAB1101							I			I	I	I	
BIO1101	I				I	I					I		
PHYS1101		I			I	I			I		I	I	
ELS1102	I						I			I	I	I	
MATH1102		I					I			I	I	I	

Course code & No.	Program Learning Outcomes												
	Knowledge and understanding				Skills						Values, Autonomy, and Responsibility		
	K1	K2	---	---	S1	S2	S3	S4	S5	S6	V1	V2	----
CHEM1101		I					I			I	I	I	
EDUF1102							I			I	I	I	
STAT1251		I			I	I				I	I		
BIO1201	I	I			I					I		I	
BIO1202	I	I			I	I	I				I		
(GEE_L)							I			I	I	I	
BIO1203	I				I	I		I			I		
BIO1204	I				I	I	I				I		
CHEM1202		I					I			I	I	I	
PHYS1206		I					I			I	I	I	
BIO1205	I	I			I	I					I	I	
BIO1206	I	I			I	I					I	I	
ISLS1201							I			I	I	I	
BIO1207	I	I			I	I					I		
BIO1208	I	I			I		I		I			I	
(GEE_T)							I			I	I	I	
(GEE_S)	I	I						I	I	I	I		
BIO1301	P	P				P	P		P		P		
BIO1302	P				P		P				P		
BIO1303		P			P	P					P		
BIO1304		P				P		P		P	P		
BIO1305	P				P	P	P				P		
BIO1306	P				P		P				P		
(GEE_C)							P			P	P	P	
BIO1307	P	P			P	P	P				P		
BIO1308	P	P			P				P		P	P	
BIO1309	P	P			P	P	P				P		
BIO1310	P	P			P	P	P				P		
(GEE_P)							P			P	P	P	
BIO1311	P	P			P	P	P				P		

Course code & No.	Program Learning Outcomes												
	Knowledge and understanding				Skills						Values, Autonomy, and Responsibility		
	K1	K2	---	---	S1	S2	S3	S4	S5	S6	V1	V2	----
BIO1401	P	P			P	P	P				P	P	
BIO1402	P	P			P	P	P	P			P	P	
BIOC1403	P	P						P	P	P	P		
BIOC1404	P	P			P	P			P		P		
BIO1498	P	P			P	P	P	P	P	P	P	P	
BIO1403 (Elective)	M	M			M	M		M			M		
BIO1404 (Elective)	M	M			M	M				M	M	M	
BIO1405 (Elective)	M	M				M			M		M		
BIO1406 (Elective)	M	M			M	M		M			M		
BIO1407 (Elective)	M	M			M			M				M	
BIO1408 (Elective)	M	M			M	M			M		M	M	
BIO1409 (Elective)	M	M					M	M		M	M	M	
BIO1495	M	M			M	M	M	M	M	M	M	M	
BIO1410 (Elective)	M	M			M			M			M	M	
BIO1411 (Elective)	M	M			M	M	M				M		
BIO1412 (Elective)	M	M			M	M	M				M		
BIO1413 (Elective)	M	M			M	M					M		
BIO1414 (Elective)	M	M			M	M					M		
BIO1415 (Elective)	M	M			M	M					M	M	
BIO1416 (Elective)	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.

Faculty members at all sites are required to follow course specifications which are available on the department website. All the outlines of teaching and assessment strategies set out in the program and course specifications must be followed by teaching faculty members. The teaching and learning focus on the needs, abilities, interests, and learning styles of the students. The design of the curriculum and courses' contents are in support to serve this situation. The teaching methods include:

Teaching and learning strategies to be used to develop knowledge:

1. Lectures.
2. Class discussion.
3. Group discussion.
4. Case studies and articles.
5. Web-based learning.
6. Self-learning.
7. Tutorials.
8. Co-operative learning.
9. Independent learning.

Teaching and learning strategies to be used to develop skills:

1. Lectures.
2. Class discussion.
3. Group discussion.
4. Laboratory work.
5. Field trips.
6. Extra Curriculum.
10. Web-based learning.
11. Cooperative learning.
12. Brainstorming.
13. Independent learning.

Teaching and teaching strategies to be used to develop values:

1. Lectures.
2. Lab demonstrations.
3. Field trips.
4. Group discussion
5. Graduation projects.
6. Group projects.
7. Web-based learning
8. Case Studies.
9. Brainstorming.
10. Co-operative learning.

11. Extra Curriculum.

Each course learning outcome needs special methods for teaching and learning as well as special methods for assessment according to the nature of the learning outcomes. In addition, as the learning outcomes of courses are derived from those of the program, therefore, teaching and learning strategies are varied according to the nature of the course and according to the learning outcomes of the program.

Faculty members are expected to develop plans regarding how they will conduct their teaching to attain course outcomes. Course plans are prepared on the BLACKBOARD, which is accessible to all students registering for the course. Instructors are required to upload all the following information about the course on BLACKBOARD:

1. Basic information about the course.
2. Lecture and lab timetables.
3. Course description.
4. Course objectives and teaching strategies.
5. Course delivery schedule during the academic semester.
6. Assessment and evaluation plan and schedule.
7. References and further reading materials.
8. The instructor's policy of dealing with students is within the framework of university laws, regulations, and guidelines.

Students should be encouraged by instructors to refer to this platform to acquire a comprehensive understanding of the course, contents, delivery, and assessment processes. For the course instructor to provide students with an elaborative explanation of the course inauguration with detailed rationale, significance, and relevance of the course, the learning outcomes as well as the methods of assessment. Feedback from students is used to monitor the commitments of the teaching staff to these regulations. Student's course evaluation survey is divided into three main sections: The first one is about the start of the course, the second one is about the delivery process and the third one is about the course assessment process. The student's performance and recommendations for further improvements are discussed and approved by the department council.

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).

A-The direct method of assessing the program learning outcomes:

The direct method is summarized in the following three steps:

Step 1. Determine the courses that are used in the measurement process: (7) biology courses that were taught in the last year (4th year- Levels 7 and 8) which includes the process of measuring the PLOs.

Step 2. Determine the CLOs included in measuring the PLOs.

Step 3. The actual level for a given PLO is calculated using the following formula:

$$PLOK = \frac{(C1 * N1) + (C2 * N2) + \ldots.. + (Ch * Nh)}{N1 + N2 + \ldots.. + Nh} = \frac{\sum h\ i=1\ Ci * N}{\sum h\ i=1\ Ni}$$

Where,

PLOk: Actual level for the kth program learning output.
Ch: actual level for the hth course's learning output aligned with the kth PLQ.
Nh: number of students who complete the ith course.
h: number of courses. This formula is applied to the biological courses that are taught at the fourth level and above.

The actual level for Ch the hth course's learning output is calculated using a collection of steps starting from course information up to the final report, which is explained in the User Guide for the CLOs measurement file.

The assessment methods according to domains are:

Assessment method to be used to assess the acquired knowledge:

Quizzes.
Midterm examination.
Final examination.
Class discussion and participation.
Group discussion.
assignments.
Evaluation of field training reports.
Oral examination.

Assessment method to be used to assess the acquired skills:

Quizzes.
Midterm examination.
Final examination.
Practical examination.
Peer Evaluation (e,g, Rubrics, Rating Scale, etc..)
Long and Short Essays.
Class discussion and participation.
Group discussion.
Homework assignments.
Laboratory reports.
Field Reports.
Scientific Reports (e.g. dissertations, review articles, etc…).
Individual and group presentations.

Problem-Solving Questions.
Demonstrations through charts and posters.
Evaluation of field training reports.
Oral examination.

Assessment method to be used to assess the acquired values:
Scientific Reports.
Homework assignments
Class discussion and participation.
Group discussion.
Problem-solving questions.
Individual and group presentations.
Peer Evaluation.
Oral examination.

B- The indirect method:
Introduction:

The program in addition to the direct method, applies also indirect method to ensure that students achieve learning outcomes. The indirect method of assessing program learning outcomes through surveys plays a crucial role in evaluating the effectiveness of the program at the bachelor level. By collecting feedback from program beneficiaries, including, graduates, employees, and alumni, this method provides significant insights regarding program learning outcomes achievement which helps to identify areas for improvement.

Time of Measurements and Conducting Surveys:
Conduct surveys every year: Administer the surveys at regular intervals, preferably annually, to capture the perspectives of all relevant stakeholders. This ensures that the feedback obtained reflects the current state of the program and allows for meaningful comparisons over time.
This method is based on the results of three surveys.

- The first survey is the **Student Satisfaction Survey**, which is given to students who are expected to graduate.
- The second is the **Employers Survey** targeting employers in whose organization's alumni of the program work.
- The third survey is the **Alumni Survey**, which is filled out once a year by the alumni.

-**The indirect method of assessing the program learning outcomes:**
The biology program uses the surveys of the NCAAA to assess all the different aspects of the program including the learning outcomes. The surveys are:
Courses Evaluation Survey.
Students Experience Survey.
Program Evaluation Survey.
Alumni Evaluation Survey.

Employers' surveys.
Other surveys for the assessment of satisfaction with all parts
All these surveys are conducted in the time frame that is specified for each one. The results of these surveys are used for the implementation of improvement plans.

Result Analysis and Writing Report:
The survey is published electronically through a platform of a program's choice.
In order to perform statistical analysis, all responses obtained from respondents were coded according to a five-point Likert scale.
Strongly disagree (1), Disagree (2), Not sure (3), Agree (4) and Strongly agree (5).
The responses were analyzed using descriptive statistics methods, which include frequency tables and percentages, for the sake of describing the characteristics of the study sample and calculating means. A five-point Likert scale is used to interpret the results. This analysis will provide an understanding of the overall perception of the program learning outcomes by different stakeholders.
Compare results across stakeholder groups: Compare the survey results among students, graduates, employees, and alumni to identify any discrepancies or differing perspectives. This comparison might assist in identifying areas of strength or weakness.
Identify trends and patterns: Look for common themes or trends in the survey results. Identify specific program learning outcomes that are likely to receive praise and those that might need improvement.
Write a comprehensive report: Summarize the survey findings in a clear and concise report. Include an overview of the survey methodology, key findings, and recommendations for program improvement. To enhance readability, present the information in a visually appealing way, like tables or graphs.

D. Student Admission and Support:

1. Student Admission Requirements

The admission and registration of new students to the Biology Program are processed through the Deanship of Admission and Registration using the University of Tabuk webpage (https://myut.ut.edu.sa/ut/init).
The University of Tabuk, through the Deanship of Admission and Registration, publishes an annual guidebook specifying the admissions requirements for prospective students. According to the latest guidebook published in 1445, the University of Tabuk admits students who meet the following main requirements https://www.ut.edu.sa/ar/Deanship/dar/Documents/DG451.pdf
General admission requirements for the academic year 1445:

1- The applicant can be a Saudi national or a non- Saudi national.
2- The applicant must have a high school certificate or its equivalent certificate from inside or outside the Kingdom of Saudi Arabia
3- The certificate equivalency must be issued by the Certificate Equivalency Committee at the Ministry of Education, if the high school certificate is from abroad.

4- The study system at the high school should be the regular system only.
5- The high school certificate must not have passed more than five years, i.e. the certificate must have been issued in the academic year 1439-1440 AH and beyond, taking into account the special conditions for the health specializations.
6- The age of the applicant should not exceed 25 years, i.e. he/she should be born in the year 1998 AD or later.
7- The academic achievement test score should not be less than 50% (the available score will be approved during application)
8- The general aptitude test score should not be less than 50% (the available score will be approved during application)
9- The validity period for the general aptitude test scores and academic achievement 5 years.
10- The applicant should not have a previous academic record at the University of Tabuk during the last 4 semesters, and if it becomes clear after the final admission that he/she has a previous academic record, then the admission is considered as canceled.
11- The applicant should not have been dismissed from the university or any other university for an academic or disciplinary dismiss, and if it becomes clear after the final acceptance that he/she was previously dismissed, then his/her acceptance is considered as canceled.
12- The applicant should not be accepted or registered for the same degree or another degree in the university or any other university, and if it becomes clear after the final acceptance that he is registered, then the acceptance is considered as canceled.
13- The validity of the data must be confirmed, and in the case of a deficiency or error in the entered data, the acceptance will be canceled.
14- The applicant is responsible for following up the admission procedures through the University website and the university official social media.

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).

- It aims to provide a holistic welcoming experience for new students, and the orientation is relegated by the university to the faculty and department.
- Available on the web page of deanship of admission and registration: https://www.ut.edu.sa/ar/Deanship/student-affairs/Pages/default.aspx

Students admitted to the biology program are given an orientation program on services, facilities available, and their rights and responsibilities as well as advice on curriculum matters and career opportunities, available on the web page of deanship of student affairs: https://www.ut.edu.sa/ar/Deanship/student-affairs/Pages/default.aspx
. The orientation program is conducted once at the beginning of every academic year. Both the academic advisors and the senior students participate in the orientation program in the orientation program, students received a package that includes:

- The Student Guide Handbook (Link).
- Contact information.
- Academic counseling guide.

- Executive rules for student grievance.
- The rules of study and exams at the University of Tabuk (UT)
- The Academic Calendar.
- Location of the classrooms before the beginning of classes.
- IT guide including how students can activate their email accounts and change passwords.

In addition, Students' satisfaction with the orientation program is evaluated through a questionnaire.

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).

Counseling manuals are available at the following link:

https://www.ut.edu.sa/ar/Deanship/student-affairs/Q-Development/Pages/Guidance-and-Counseling-Unit.aspx

- The student is distributed among the faculty members, and this is announced on the college website, notice boards, and in the offices of the faculty members.
- Faculty members study students and classify problems (from low GPAs, warnings, and other personal problems).
- Faculty members meet with students, study their problems and work on solving them.
- The faculty member writes a set of reports on the forms prepared by the Guidance Unit and submits them to the unit.
- The Academic Guidance Unit makes a comprehensive report that is submitted to the Vice Dean for Academic Affairs to solve the problems and present it to the Dean of the College and take the necessary actions.
- The Training Unit, in conjunction with the Student Club and the Graduate Follow-up Unit, holds training courses for students for psychological and social preparation.
- The student's complaints are posted to the academic Guidance or directly to the vice Dean or the Dean of the college to take the necessary actions towards it.

4. Special Support

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

1. The program has an Academic Advisory Committee whose goal is to ensure sufficient counselling provisions.
2. Also, students are assigned to one academic advisor.
3. Faculty staff members are required to post their office hours on the office bulletin board and provide means of alternative communication if otherwise not available.
4. Students with poor performance (GPA < 2.0) are closely monitored and provided with appropriate counselling.
5. The Academic Guidance Unit makes a comprehensive report that is submitted to the Vice Dean for Academic Affairs to solve the problems and present it to the Dean of the College and take the necessary actions.

6. The Training Unit, in conjunction with the Student Club and the Graduate Follow-up Unit, holds training courses for students for psychological and social preparation
   The students' complaints are posted to the academic Guidance or directly to the vice Dean or the Dean of the college to take the necessary actions towards it.

Low achievers

- A student support system –E-register- is available to identify tripped students. Moreover, a committee for tripped students was established by FSUT.
- The Department of Biology constitutes a counseling committee to investigate reasons for this poor performance and provide the necessary support for the students.
- The Department of Biology and faculty of science provide a supportive education program under an initiative called 'Academic Support Community ASC' for students with poor academic performance, in particularly first year students, to improve their academic level.

Disabled

- Providing electric lifts.
- Providing private parking.
- Equipping the stairs that help them climb their steps.

Gifted and Talented

Talented students will be advised to communicate with the Creativity and Talent Unit at university. The deanship of student affairs launched the program "innovators" in order to investigate talented students as well as to support and motivate them. Also, provide them with special training courses

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	Biology	Zoology, Botany, Microbiology, Bitechnology and Ecology	- Using different effective teaching methods and effectively communicating with students. - Self assurance Proficiency	1	3	4

			in using modern technologies . - Have great knowledge and sufficient experience with environmental issues and sustainability.			
Associate Professor	Biology	Zoology Botany Microbiology Ecology Molecular Biology Biotechnology	- Using different effective teaching methods. and effectively communicating with students. - Self-assurance Proficiency in using modern technologies. Have great knowledge and sufficient experience with environmental issues and sustainability	1	4	5
Assistant Professor	Biology	Zoology Botany Microbiology Molecular Biology	- Using different effective teaching methods and effectively communicati	5	9	14

		Biotechnology Bioinformatics	ng with students. - Self-assurance Proficiency in using modern technologies. - Have great knowledge and sufficient experience with environmental problems and sustainability			
Lecturer	Biology	Biology	- Using different effective teaching methods and effectively communicating with students. - Self-assurance Proficiency in using modern technologies. - Have great knowledge and sufficient experience with environmental problems and sustainability.	1	2	3
Teaching Assistant	Biology	Biology	- Using different effective teaching methods and	3	3	6

			effectively communicating with students. - Self-assurance Proficiency in using modern technologies. - Have great knowledge and sufficient experience with environmental problems and sustainability.			
Technicians and Laboratory Assistant	Biology	Biology	Have appropriate knowledge and skills in using modern technologies and biology lab devices.	4	4	8
Administrative and Supportive Staff	Administration	Any	Have appropriate knowledge and information related to the field that he/she will manage.	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.)

- Visit the library or information center for the content of information that is related to the course.

- Through a reading of available bulletins, periodicals, journals, and books.
- Using SDL.
- Committees are formed to take care of the requirements and facilities in libraries, labs, and classrooms.
- Updating labs and libraries is an ongoing process.
- Examination of book forms and references for each course to determine the appropriateness of the book for course topics by the relevant staff member – how recent - (coverage).
- Evaluation of staff member books and match with the contents of the courses before their adoption.
- Using a poll of students in the extent they benefit from the references and sources in the library, and the suitability of the curriculum they study.
- The department members of various specializations choose books and modern references relevant to the curriculum that suit the students, after its grouping and arranging. Then submitted to the department and then raise to the college to be the procurement process.

2. Facilities and Equipment

(Library, laboratories, classrooms, etc.)

Classrooms:

The Department of Biology contains 10 classrooms that are equipped with data show projectors and whiteboards. All classrooms are well-ventilated with good lighting and can accommodate approximately 25 students at a time.

Laboratories:

The Department of Biology has 3 laboratories for male section– 4 laboratories for female section in main campus. In Umluj and Haql branches both have 2 and 3 laboratories for female section, respectively. All those laboratories are equipped with the required instruments, tools, chemicals, and other materials needed for conducting practical sessions. The laboratories are suitable for the types of courses taught in the program. The laboratory Committee applies appropriate mechanisms to maintain and update lab facilities. All devices and instrumentations are reviewed annually for maintenance and for purchasing newly developed instruments. Barcode signs in each classroom were set to scan and send support if any defect was encountered.

Library:

There is only one library available for students and staff at the main campus. The department implements effective procedures for the management of resources and references needed to support learning processes. The library has a sufficient number of resources that are easily accessible and appropriate to the needs of the program and the number of students. In addition, the Saudi electronic library provides appropriate databases and electronic systems for all. This allows the beneficiaries to access information, research materials, and scientific journals from inside or outside the institution.

Medical Facilities:

The University of Tabuk provides medical services to all students and faculty members through the medical services center. In addition to treatment services through general and specialized

clinics, the center provides training services to students. The clinics are equipped with the latest equipment and medical supplies.

3. Procedures to ensure a healthy and safe learning environment

(According to the nature of the program)

- Students' satisfaction is surveyed on issues of various services, safety facilities, social life, and sporting activities offered on campus. Based on the suggestions presented, most of the comments are responded to.
- There is a program for implementing safety standards in laboratories, classrooms, offices, and corridors, where all safety devices and safety labels, such as directions and illuminated labels, are required.
- Awareness seminars are held for students to preserve the environment, security, and safety through the Student Activities Unit and the Community Service Unit.
- The University's Security and Safety Unit provides security and safety systems to secure facilities.
- Cameras are available in the facilities for 24 hours.
- A fire evacuation policy and fire drills are practiced in all locations.
- First aid is available in all colleges.
- The college has contingency plans, safety signs, emergency exit signs, and lab safety stickers. All classrooms and lab rooms are of adequate size and have adequate ventilation.

G. Program Quality Assurance:

1. Program Quality Assurance System

Provide a link to quality assurance manual.

The quality assurance manual includes all the procedures applied in the program:
https://drive.google.com/file/d/1gBQj0xUPFC-m6qf43Jdg-JJFNPJHD6q3/view?usp=drive_link

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

Step 1: Data collection: students and alumni, employers' questionnaires, staff faculty, course reports, personal interviews with students, and members/measurement of performance indicators.
Step 2: Study and analyze the data: Presented to the committee of higher studies and quality and discuss the issues and propose possible solutions.
Step 3: Develop an implementation plan for the solutions proposed by a competent committee.

Activity name	Start of the semester	End of the semester	annually	Biannually	Every 5 years
Program level activity					

Program specification review					√
Course evaluation surveys		√			
Course report preparation		√			
Course recommendation reporting		√			
Course file preparation and submission		√			
Employer evaluation survey		√			
Alumni evaluation survey			√		
Program SWOT analysis preparation and reporting					√
Program KPI report preparation and analysis			√		
Annual program report preparation			√		
Annual program report revision			√		
Recommendations and conclusion			√		
Program self-study report development					√

Course report		√			
Course recommendations report	√				
Course file		√			
Student evaluation surveys		√			
External program assessment					√

Arrangements to Monitor Quality of Courses Taught by other Departments:

Monitoring of courses by the department follows the university of Tabuk as well as the NCAAA guidance. Where at the end of each semester, the faculty members submit a course file and course reports on the NCAAA templates. Course reports should be prepared at the end of the semester in which the course was delivered. The minimum requirements for annual course monitoring should include summary and analysis of final marks of students with comments on grade profiles, course learning outcomes, effectiveness of planning teaching and assessment strategies for course SLOs, course evaluation by students and other evaluators, and an action plan for improvement that may include arising issues or proposals for change. If the course was offered in a different location such as on the main campus and satellite campuses, a separate report for each location should be considered and provided to the course coordinator who prepares one final report for all locations showing the difference between locations regarding the handling of the course. All course reports of the program are in turn provided to program coordinators which should be read before the completion of the annual program report. Also, the supervisors of the units of measurement and evaluation in the main campus and satellite campuses of the university are instructed to guide the faculty members to fill item No. 10 of the course syllabus. The evaluation department in the unit of measurement and evaluation gathers and analyzes the observations received from each faculty and prepares a special report.

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

- In the Biology program ensures that the same topics and materials are taught by following the same course specification. Each course has only one coordinator, which is responsible for keeping harmony in work between both sections. The midterm and final exams are conducted at the same time with the same template -recently applied- in both sections in the main campus and branches. By the end of each semester, a course report for each section in both male and female sections within main campus and branches are prepared. The course coordinator combined all course reports into one report comparing the results of both male and female students. The combined course

report is submitted to the department council for discussion and approval. All the approved course reports are submitted to the program coordinator for approval. The course reports are included in the annual program report once it is approved by the faculty council.

- Periodical revision of the study plan and program specification.
- Regular follow-ups of any change in the course specification from the program specification.
- Combined annual program report.
- combined improvement recommendations for the course report and the annual program report.
- consistency committee to follow the executive improvement plan and consistency for three fields teaching and learning, society activities, and research.

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

The plan for evaluating the learning outcomes of the program and the mechanisms for using its results in the development processes are as follows:

- To ensure the quality and continuous improvement of the program, the learning outcomes are evaluated and measured periodically based on the criteria that indicate the quality of performance according to the NCAAA program.
- The faculty members and staff responsible for the various activities in the program evaluate the level of performance according to these criteria, based on appropriate evidence, with support this with performance indicators and benchmarking with other programs of a high level of quality, especially in areas of great importance. This self-evaluation is supported by an independent opinion by reviewers or independent reviewers from outside the institution. To enhance the credibility, positioning, and accuracy of the evaluation.
- Learning outcomes are evaluated and measured periodically according to the NCAAA program, for each course separately, each semester, and every year for the program as a whole.

To assess the quality of the program outputs as well as the rates of achieving the targeted learning outcomes and the extent to which the program objectives are achieved, we will take the following procedure:

1. Reviewing the evaluation of the regular students for the courses and the academic program.
2. Reviewing the graduate students' evaluation of the academic courses and program.
3. Reviewing employers' evaluation of graduates' performance.
4. Internal review (self-evaluation) - external review of courses.
5. To enroll faculty members in training courses and workshops to provide them with teaching and professional skills and experiences.
6. Taking the opinion of external reviewers of the program, identifying the strengths and weaknesses, making recommendations for improvement, and making plans to implement these recommendations and their rate of achievement.
7. Distributing questionnaires to employers and the target community of the program.
8. Organizing periodic meetings with employers and the target community of the program.

Based on all of the above, an improvement plan is prepared and circulated to the stakeholders, where the evaluation processes are used permanently for continuous improvement of the program and feedback on continuous improvement of the program.

5. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Effectiveness of teaching and assessment	• Students. • Alumni. • Independent Auditor.	• Surveys.	End of the academic year.
Learning resources	• Alumni. • Students. • Faculty Members • Independent Auditor.	• Visits. • Surveys.	End of the academic year.
Facilities and Equipment	• Program leader • faculty. • Students. • Administrative staff.	• Interviews. • Surveys. • Visits.	Beginning of the Trimesters and the end of the 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 (__one__) 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	4.5	Survey	Every academic year
2	KPI-P-02	Students' evaluation of the quality of the courses	4.6	Survey	Every academic semester
3	KPI-P-03	Completion rate	75%	Reports	Every academic year
4	KPI-P-04	First-year students retention rate	90%	Reports	Every academic year
5	KPI-P-05	Students' performance in the professional and/or national examinations	NA	NA	NA
6	KPI-P-06	Graduates' employability and enrolment in postgraduate programs	70%	Survey	Every academic year
7	KPI-P-07	Employers' evaluation of the program graduate's proficiency	4.5	Survey	Every academic year
8	KPI-P-8	Ratio of students to teaching staff	1:15	Reports	Every academic year

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
9	KPI-P-9	Percentage of publications of faculty members	80%	Reports	Every academic year
10	KPI-P-10	Rate of published research per faculty member	Average of 4 published research per faculty member annually.	Reports	Every academic year
11	KPI-P-11	Citations rate in refereed journals per faculty member	Average of 85 citations for each faculty member annually.	Reports	Every academic year

*including KPIs required by NCAAA

H. Specification Approval Data:

Council / Committee	**PROGRAMS AND STUDY PLANS COMMITTEE AND BIOLOGY DEPARTMENT** التوقيع — الاسم  د. دخنه بنت سعيد الشهري  د. عائشة بنت عيد البلوي  د. عبير بنت موسى الخيبري  د. هناء بنت عتيق غبان  د. ضحاء بنت عبدالله البلوي  د. بدور بنت فالح البلوي  د. أسماء بنت مسعد العنزي  د. امينة بنت سعود العتيبي  د. حنان بنت عيد العطوي
Reference No.	**COUNCIL NO. (12) – SUBJECT NO. (5)**
Date	**25 / 07 / 1445 H.**

Head of The Biology Department

Dr. Faud Alatawi