



Program Specification

— (Bachelor)

Program:	Bachelor in Botany
Program Code (as per Saudi university ranking):	051105
Qualification Level:	Bachelor (B.Sc.), 6th level According to NQF
Department:	Biology Department
College:	College of Sciences
Institution:	Taif University
Program Specification:	New <input type="checkbox"/> updated* <input checked="" type="checkbox"/>
Last Review Date:	29/08/2023G -12/02/1445H

*Attach the previous version of the Program Specification.



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A. Program Identification and General Information

1. Program's Main Location :

Male Students Main Campus, Hawiyah, Taif
Female Students Main Campus, Hawiyah, Taif

2. Branches Offering the Program (if any):

None

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

None

4. Professions/jobs for which students are qualified

- Research centers for scientific research.
- Medical and analytical laboratories (in Ministry of Health and private organizations).
- The Ministry of Agriculture.
- National Authority for the protection of wildlife.
- Universities and academic employment.
- Teachers in the Ministry of Education.
- Desalination plants.
- King Abdulaziz City for Science and Technology.
- All Military sectors after obtaining prescribed courses.

All required information is available in the official website of the Saudi Ministry of Human Resources and Social Development (<https://hrsd.gov.sa/ar/node>).

5. Relevant occupational/ Professional sectors:

- Education sector.
- Ministry of Health and private organizations sectors.
- Scientific research sector.
- Medical and analytical sector.
- Agriculture sector.

6. Major Tracks/Pathways (if any):

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

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

exit points/awarded degree	Credit hours
1. None	None

8. Total credit hours: 138 hours



B. Mission, Objectives, and Program Learning Outcomes

1. Program Mission:

Prepare qualified graduates in the field of botany capable of competition in labor market and exploitation of scientific research in community development.

2. Program Goals:

- G1. Provide students with efficient cognitive and professional skills in biology related fields.
- G2. Prepare students for a wide variety of career paths, including scientific research and professional levels of employment.
- G3. Motivate social responsibilities of students in an ethical framework for sustainable environmental and community development.
- G4. Develop competency of lifelong learning and interpersonal traits in the field of specialty.
- G5. Encourage investigation, problem-solving and scientific reasoning capabilities.

3. Program Learning Outcomes*

Knowledge and Understanding

K1	Recognize facts, principles, scientific terminology and concepts across major botany disciplines and other related sciences.
K2	Classify different organisms based on their habitats, external features, anatomy and other relevant biological characteristics.
K3	Identify basics, routine procedures and technical requirements of different scientific tools and equipment.

Skills

S1	Apply biological concepts using integration of academic knowledge and professional skills.
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	Utilize concepts and basics of botany in economic, social and environmental contexts.
S4	Demonstrate functions of macromolecules (e.g. DNA, proteins, lipidsetc.) in different biological systems.

Values, Autonomy, and Responsibility

V1	Exhibit leadership role and responsibilities in making an identifiable contribution in professional and scientific research activities.
V2	Formulate original and innovative responses in addressing and solving complex problems and issues.
V3	Display professional, ethical and cultural values in relation to technological or scientific advancements.





C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	12	24	17.3%
	Elective	1	2	1.5%
College Requirements	Required	6	22	15.9%
	Elective	-	-	-
Program Requirements	Required	30	84	60.9%
	Elective	-	-	-
Capstone Course/Project	Required	1	3	2.2%
Field Training/ Internship	Required	1	3	2.2%
Residency year	--	-	-	-
Others	--	-	-	-
Total		51	138	100%

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

2. Program Courses

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	105115-2	History of the Kingdom	Required	-	2	Institution
	201104-4	General Biology	Required	-	4	College
	202112-3	Introduction to Mathematics	Required	-	3	College
	204101-4	General Chemistry (1)	Required	-	4	College
	999801-2	English for Academic Purposes (1)	Required	-	2	Institution
Level 2	2021204-4	Calculus (1)	Required	202112-3	4	College
	2031204-4	General Physics (1)	Required	-	4	College
	2051204-3	Introduction to Biotechnology	Required	-	3	College
	990211-2	Arabic Language Skills	Required	-	2	Institution
	990311-2	University Study Skills	Required	-	2	Institution
	999802-2	English for Academic Purposes (2)	Required	999801-2	2	Institution
Level 3	2004111-2	Fundamentals of Islamic Culture	Required	-	2	Institution
	2012101-3	General Ecology	Required	201104-4	3	Program
	2012102-3	Cytology	Required	201104-4	3	Program
	2012103-3	General Botany	Required	201104-4	3	Program
	2012104-3	General Zoology	Required	201104-4	3	Program
	2022110-2	Biostatistics	Required	2021204-4	2	Program
	999803-2	English for Academic Purposes (3)	Required	999802-2	2	Institution
Level 4	2004112-2	Islamic Culture (Morals and Values)	Required	2004111-2	2	Institution
	2012201-2	Genetics	Required	2012101-3	2	Program
	2012202-2	Biodiversity	Required	2012101-3	2	Program





Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	2012203-3	General Microbiology	Required	2012103-3	3	Program
	2012205-3	Plant Kingdom	Required	2012103-3	3	Program
	2043106-3	Biochemistry	Required	204101-4	3	Program
	999804-2	English for Academic Purposes (4)	Required	999803-2	2	Institution
Level 5	2013103-2	Pollution and Environmental Impact Assessment	Required	2012101-3	2	Program
	2013106-3	Plant Physiology (1)	Required	2012103-3	3	Program
	2013107-3	Plant Ecology	Required	2012101-3	3	Program
	2013108-3	Mycology	Required	2012203-3	3	Program
	2013109-3	Plant Anatomy	Required	2012103-3	3	Program
	999819-2	Special English for Science	Required	-	2	Institution
Level 6	2004313-2	Islamic Culture (The social system in Islam)	Required	2004112-2	2	Institution
	2013207-3	Phycology	Required	2012205-3	3	Program
	2013208-3	Economic Botany	Required	2013109-3	3	Program
	2013209-3	Plant Physiology (2)	Required	2013106-3	3	Program
	2013210-3	Archegoniate	Required	2012205-3	3	Program
2013211-2	Vegetation	Required	2013107-3	2	Program	
Level 7	2004414-2	Islamic Culture (Human Rights)	Required	2004313-2	2	Institution
	2014104-3	Molecular Biology	Required	2012201-2	3	Program
	2014106-3	Field Studies	Required	-	3	Program
	2014107-3	Medicinal Plants	Required	2013208-3	3	Program
	2014108-3	Taxonomy of Flowering Plants	Required	2012205-3	3	Program
	2014109-3	Plant Hormones	Required	2013209-3	3	Program
	2014110-3	Plant Pathology	Required	2013108-3	3	Program
	99xxxx-2	Elective Course	Elective	-	2	Institution
Level 8	2014203-3	Graduation Project	Required	-	3	Program
	2014209-3	Plant Secondary Metabolites	Required	2014109-3	3	Program
	2014210-3	Flora of Saudi Arabia	Required	2014108-3	3	Program
	2014211-2	Phytogeography	Required	2013211-2	2	Program
	2014212-3	Physiology of Environmental Stress	Required	2014109-3	3	Program
	2014213-3	Plant Tissue Culture	Required	2014104-3	3	Program

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

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

3. Course Specifications:

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

[Course specifications of Botany program courses](#)

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	V3
General Biology (201104-4)	I	I					I		I	
Introduction to Mathematics (202112-3)	I			I	I				I	
General Chemistry (1) (204101-4)			I	I				I	I	
Calculus (1) (2021204-4)	I			I	I				I	
General Physics (1) (2031204-4)			I	I					I	I
Introduction to Biotechnology (2051204-3)	I		I				I		I	
General Ecology (2012101-3)	I	I				I		I		I
Cytology (2012102-3)	I		I				I	I		I
General Botany (2012103-3)	I	I		I		I		I		
General Zoology (2012104-3)	I	I				I	I			I
Biostatistics (2022110-2)	I			P	I				P	
Genetics (2012201-2)	I			I			P	I	I	
Biodiversity (2012202-2)	P	I				I			I	
General Microbiology (2012203-3)		I	P			P	P		I	
Plant Kingdom (2012205-3)		I		I		I		I		P
Biochemistry (2043106-3)	P		P		I		P		P	
Pollution and Environmental Impact Assessment (2013103-2)	P					P			P	P
Plant Physiology (1) (2013106-3)	P		P		P		P	I		





Course code & No.	Program Learning Outcomes									
	Knowledge and Understanding			Skills				Values, Autonomy, and Responsibility		
	K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
Plant Ecology (2013107-3)	I		P	I		P		M		
Mycology (2013108-3)	M	P		P		P		P		
Plant Anatomy (2013109-3)	P	I			P	P		P		
Phycology (2013207-3)	M	P		P		P		P		
Economic Botany (2013208-3)	P	P				P		P		P
Plant Physiology (2) (2013209-3)	P		I		I		P	M		
Archegoniate (2013210-3)		I		I		I		P		P
Vegetation (2013211-2)		P			I	I			P	M
Molecular Biology (2014104-3)	M		M	M			M		M	
Field Studies (2014106-3)	M		M		M			M	M	
Medicinal Plants (2014107-3)		M	M	M	M			M		
Taxonomy of Flowering Plants (2014108-3)		M		M		M		M		M
Plant Hormones (2014109-3)			M	M		M	M		M	
Plant Pathology (2014110-3)	M	M		M	M					M
Graduation Project (2014203-3)			M		M		M	M	M	M
Plant Secondary Metabolites (2014209-3)	M		M	M	M			M		
Flora of Saudi Arabia (2014210-3)	M	M			M	M				M
Phytogeography (2014211-2)			M		M	M				M





Course code & No.	Program Learning Outcomes									
	Knowledge and Understanding			Skills				Values, Autonomy, and Responsibility		
	K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
Physiology of Environmental Stress (2014212-3)	M		M		M	M			M	
Plant Tissue Culture (2014213-3)	M		M	M				M		M

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

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

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

- **Lecture:** It can be defined as a presentation of the subject of the lesson in voice and some other aids. It is delivered by explaining the elements of the lecture's subject and skillfully distributing the time on all elements.
- **Open discussion:** A way to guide and encourage students to express their opinions, ask questions and provide answers, and thus increase interest in preparing the lesson in advance.
- **Brain storming:** stimulate the minds of learners to think in all directions and possibilities and obtain the maximum number of ideas on the subject of the lecture.
- **Project strategy:** To specify a set of educational projects related to the specialization of students and present these projects to students so that each group of students chooses a specific project. The faculty member will then assist students by providing books, references, and advice until the end of the project and the achievement of the objectives.
- **Cooperative learning:** Based on reciprocal dialogue between faculty members and students, or among students themselves.
- **Concept maps:** Employ shapes, fonts, images, arrows, colors, and language (linking words) to represent knowledge and provide information.
- **Small group activities:** divide the learners into small groups of 3 or 4, give them specific tasks "common goals," and then ask them to collaborate (knowledge exchange) to accomplish the required tasks.
- **Discovery learning:** Requires the student to organize his information and rearrange it in a new way.
- **Problem solving:** Stimulate students towards a problem related to the course if it is suitable for their level and cannot be solved easily without research and effort.
- **Interactive learning:** Based on interactive information and communications technology.
 - For more information see:
 - [Guide for Teaching and Learning Strategies and Assessment Methods \(In Arabic\)](#)
 - [Guide for Teaching and Learning Strategies and Assessment Methods \(In English\)](#)

Consistency between Teaching and Learning Strategies and Program Learning outcomes





Teaching and learning strategies	Program Learning Outcomes									
	Knowledge and Understanding			Skills				Values, Autonomy, and Responsibility		
	K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
Lecture	√	√		√			√			
Open discussion			√		√	√	√		√	√
Brain storming		√		√	√		√	√		
Project strategy	√			√	√			√	√	
Cooperative learning	√		√			√		√		√
Mind mapping	√	√			√				√	
Small group activities			√	√		√		√	√	√
Discovery learning		√					√			√
Problem solving				√	√		√		√	
Interactive learning	√		√			√		√		

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 plan depends on assessing all PLOs annually and follows the PLOs assessment basic cycle to propose actions for improvement of outcomes.

Direct assessment by rubrics

Rubrics are used to examine how well students have met learning outcomes rather than how well they perform compared to their peers. Rubrics typically include specific, observable, and measurable descriptors that define expectations at each level of performance for each criterion. Each course instructor of the selected courses will prepare a rubrics sheet and submit it to the course coordinator. The course coordinator is responsible for gathering and regularly analyzing the results that include the male, female and generalized scales then he/she prepares the final report at the end of each academic year to be submitted to the program committee for key performance indicators and learning outcomes.

Indirect assessment by questionnaires

Includes two questionnaires which will be used to score the perception of student competence by the program's advisory committee and the program's relevant stakeholders (students, staff members, graduates and employers).

Consistency between Assessment Methods and Program Learning outcomes

Teaching and learning strategies	Program Learning Outcomes									
	Knowledge and Understanding			Skills				Values, Autonomy, and Responsibility		
	K1	K2	K3	S1	S2	S3	S4	V1	V2	V3
Rubrics	√	√	√	√	√			√	√	





Questionnaire of program's advisory committee		√				√	√	√	√	√
Questionnaire of program's relevant stakeholders	√		√	√	√	√	√			√

- For more information see:
[Botany program learning outcomes assessment plan](#)

D. Student Admission and Support:

1. Student Admission Requirements

The Botany program governance is conducted under authorities of Biology Department, College of Sciences, Taif University and follows the executive procedures of all Taif University councils, committees and executives which abides by fair and transparent admission criteria and rules for new students and transferees for both male and female students. The guidelines are controlled by the Vice Dean of Academic Affairs and Development and are supervised by regular follow ups from College of Sciences Council authorized by the Dean of college of Sciences.

In employing specific criteria and policies for new students' admission, the process of admission electronically begins with online application on the Admission Gate in the period specified by the Deanship of Admission and Registration. Students are assigned electronically on the program based on unbiased and clear procedures. The program follows the comprehensive, secure and safe University Online System which is available [on the website of Taif University](#). The academic advising unit in College of Sciences and their coordinators in Biology department issues University Online System User Manual to guide teaching staff on performing student tasks properly and easily.

The program has general admission requirements which are:

- The applicant nationality must be a Saudi or a Saudi mother or citizen mother.
- Obtaining the general secondary school or its equivalent from inside or outside the Kingdom.
- Lack of previous admission to Taif University.
- The weighted or equivalent percentage shall not be less than 70% depending on the vacant seats.
- Enter the necessary tests for specialization as described in the special admission requirements.
- The University shall not accept any secondary certificate older than five years.

The program has specific admission requirements which are:

- Weighted Ratio: General Aptitude test 30%, Secondary education 40% and Achievement test 30%.
- The duration of obtaining a secondary school certificate shall not exceed 5 years.

All required information is available in:

- [The official website of Deanship of Admission and Registration](#)
- [Manual of Admission and Registration procedures](#)
- [Bulletin of Deanship of supporting studies](#)
- [Academic Registration Online System-User Manual](#)
- [Rules and Regulations for Student Admission](#)
- [Taif University Student's Guide](#)

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 program encourages students to participate and conduct effectively in an orientation week at the beginning of each academic year for new male and female students of the main campus and in the branches to introduce students to the University's culture, regulations, programs, facilities and services, students' rights and responsibilities and Taif University ethical code.

The program management have prepared a comprehensive guide of Botany program in [Arabic](#) and [English](#) languages as well as a [manual for guidance and orientation of new students](#).

The orientation program assists new students in building an early visualization of the academic environment. The program orientation Brochure clarifies the specific policies that guarantee completing the program study according to the regulations of Taif University. The orientation program also helps to prepare students psychologically and socially to adjust to the scientific transfer from general education to higher education by meeting with teaching staff who guide students and introduce them to the rules and regulations in College of Sciences and Taif University.

More information is available in:

- [The official website of Deanship of Admission and Registration](#)
- [Bulletin of Deanship of supporting studies](#)
- [Bulletin of Deanship of Student Affairs](#)
- [Taif University Student's Guide](#)

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).

The Academic Guidance Unit of the program guides the whole process of student guidance services. The Unit has [annual plan and semester plan for academic guidance](#) of the students. Also, all [forms of academic guidance](#) are available for students.

The program followed the rules offered for guidance and counseling units based on a specific hierarchy of Academic Advising Unit in college of Sciences which regularly guide the academic advising unit in Botany program by holding continuous workshops for academic advisors and enhance the role of academic advisors by official templates of academic advising.

The Academic Guidance Unit of the program offers personal academic, psychological and professional counseling, as well as group counseling to support the academic, behavioral, emotional, psychological and social growth of students.

All required information is available in:

- [Administration of University Guidance](#)
- [Management of Academic Support](#)
- [Guidebook for Academic Counseling](#)

4. Special Support

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

The program follows the policy of Taif University in special caring of students with special needs, with an understanding that 3.3% of Saudi populations are disabled (out of every 1,000 people there are 33 disabled persons) according to the last statistics from General Authority for Statistics. The program realizes that disabled students deserve special care and must be provided





with equal opportunity to access learning and leisure facilities. The program pays special attention to special needs students as they have been identified to their academic advisors and paying the attention of academic advisors that they need to consider their circumstances significantly and work to make the best efforts in guiding them to overcome any difficulties in front of them and listen to their opinions and informing them with their rights.

All required information is available in:

- [Bulletin of Services offered to Special Need Students](#)
- [The official website of Deanship of Admission and Registration](#)
- [Deanship of Student Affairs](#)
- [Bulletin of Deanship of Student Affairs](#)
- [Methods to follow-up Gifted and Talented Students](#)
- [Club of Talent and Creation](#)

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	-	3	6	9
	Biology	Botany	-	3	6	9
	Biology	Microbiology	-	3	6	9
Associate Professor	Biology	Zoology	-	4	6	10
	Biology	Botany	-	4	6	10
	Biology	Microbiology	-	4	6	10
Assistant Professor	Biology	Zoology	-	5	8	13
	Biology	Botany	-	5	8	13
	Biology	Microbiology	-	5	8	13
Lecturer	Biology	Zoology	-	3	3	6
	Biology	Botany	-	3	3	6
	Biology	Microbiology	-	3	3	6
Demonstrator	Biology	Zoology	-	2	2	4
	Biology	Botany	-	2	2	4
	Biology	Microbiology	-	2	2	4
Technicians and Laboratory Assistant	-	-	-	1 per lab	1 per lab	1 per lab
Administrative and Supportive Staff	-	-	-	2	2	4
Others (specify)	-	-	-	-	-	-

Note: Official issue which is discussed periodically in the faculty and the department councils and subjected to many political and financial variables.



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.)

The Botany program implements clear policies and procedures that ensure the adequacy and appropriateness of learning resources and services provided to support student learning. The library has enough resources that are easily accessible and appropriate to the needs of the program and the number of students. The program has laboratories, computer and technology equipment, and materials that are suitable to the specialty and sufficient to conduct research and scientific studies according to the program goals. The Central Library at Taif University provides students and staff with the learning resources needed for learning and teaching. It has undergone a major refurbishment to enhance its services to suit the needs of undergraduate students, postgraduate students and students with special needs. The Central Library provides students with the learning resources needed (e.g., academic books and scholarly journals) to support their learning. The University has policies and procedures in place for managing the library and ensuring the provision of support and learning resources to its students and staff. The e-Learning and IT Deanship provides all staff and students with various software facilities to help them conduct their research. The Assessment and Evaluation Department annually surveys students' and staff's opinions about the learning resources and sends the results to the Library Affairs Administration for analysis and improvement.

All required information is available in:

- [Library Affairs Administration](#)
- [Guidebook for Finding Books and References in the Central Library](#)
- [Deanship of Electronic Education and Information Technology](#)

2. Facilities and Equipment

(Library, laboratories, classrooms, etc.)

Physical plant facilities are currently adequate, and Taif University is currently building a new campus to account for its future needs. Facilities include buildings for cultural, sports, and extra-curricular activities. Buildings are conforming to Saudi code for persons with disabilities. The Central Library has recently undergone complete renovation and refurbishment to provide adequate facilities for students, researchers, and staff members. The Central Library is now equipped with new computers, wireless connection, printing and scanning machines, and new furniture including comfortable chairs and tables. In addition, as part of the renovation, the Central Library has allocated private spaces for the utilization of special need students.

All required information is available in:

- [Saudi Digital Library](#)
- [Deanship of Electronic Education and Information Technology](#)
- [Administration of Laboratory and Educational Equipment](#)
- [Library Affairs Administration](#)

3. Procedures to ensure a healthy and safe learning environment

(According to the nature of the program)

The Botany program as an integral part of Taif University is applying the very same rules of safety requirement of the university and the Ministry of Education. Safety and security on campus is provided through different channels including a contracted external company. The health and safety requirements





are provided to enhance the quality of the facilities within the University campuses and meet health and safety related policies and regulations such as the Civil Defense regulations. To provide a healthy, safe, sustainable and supportive environment, the administration of Operation and Maintenance has contracted with a cleaning company responsible for the daily cleaning of offices, classrooms, laboratories, corridors, stairs, restrooms, and university courtyards. The company also takes care of waste disposal, gardening and landscaping. Periodic maintenance is scheduled for electric power sources, electric connections, water sources, lighting, cameras, sewage, potential sources of infection, pollution and other processes. The University ensures that health and hygiene requirements are met by providing supervisors to monitor these operations on the ground and resolving any deficiencies with the contracting company. The University meets the environmental requirements in its facilities and requires all new buildings to meet acceptable standards. The University buildings have enough surrounding space and green area around them.

All required information is available in:

- [Professional Safety and Health Department Handbook](#)
- [Administration of Security Handbook](#)
- [Guidebook of Laboratory Management](#)
- [Medical Services center](#)
- [General administration of University Security](#)
- [Administration of Operation and Maintenance](#)

G. Program Quality Assurance:

1. Program Quality Assurance System

Provide a link to the quality assurance manual.

The Botany program has clear and announced quality assurance system which is well defined in its manual of quality management system (QMS) that follows all quality assurance regulation illustrated in Taif University quality management bulletin and the Saudi regulations illustrated by NCAAA (National Commission for Academic Accreditation and Assessment). The Botany program uses the NCAAA accreditation standards as a framework for quality assurance, quality monitoring and quality improvement, and has been embedding the quality practices in all its relevant committees. The program management seeks to apply quality assurance system in all its procedures, to measure its outputs and use the feed-back to design the proper improvement plans. The program's advisory committee helps in the cycle of planning and evaluation of the program.

All required information is available in:

- [The Botany Program-QMS](#)
- [The official website of Deanship of Development and Quality](#)
- [Taif University Quality Management Bulletin](#)
- [Management Regulations of Faculties and Deanships](#)

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

The unit of academic development in the College of Sciences is responsible for following-up and monitoring quality procedures conducted for general courses taught to all students of the college. The Deanship of Supportive Studies in cooperation with the Deanship of Development and Quality follow-up and monitor a higher level of quality procedures conducted for general courses taught to all students of the University.





All required information is available in:

- [The official website of Deanship of Supportive Studies](#)
- [The official website of Deanship of Development and Quality](#)
- [Taif University Quality Management Bulletin](#)
- [Management Regulations of Faculties and Deanships](#)

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

Botany program is offered in male and female students' campuses at main campus Hawaiyah Taif. Several procedures are conducted to ensure consistency between the male and female branches including:

- Regular meetings are conducted between members of the Botany program in the main campus.
- Effective communication between both sections, and full involvement in planning and decision-making processes.
- Standardization of learning resources and exams.
- An updated list of male and female course coordinators with a complete contact detail is sent to the female branch at the beginning of each semester to ensure cooperation among course coordinators.
- The course specifications are standardized and coordinated between male and female branches.
- The male and female branches of the program have agreed on the same grading system.
- Development and academic accreditation committee is supervising the whole process.

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

The Botany program has assigned 10 PLOs which have been discussed and approved by the Biology department council number 9 (dated 10-1-2019 / 4-5-1440H) for AY 1439-1440. The program PLOs were designed according to the latest NCAAA forms and learning domains also to be consistent with The Botany program's mission and goals. The assessment plan depends on assessing all PLOs annually and follows the PLOs assessment basic cycle to propose actions for improvement of outcomes.

The proposed method of PLOs assessment depends on two methods with different weights which are:

- A. Direct assessment by rubrics: this method is used to score student achievements and will represent a weight of 80% of the total PLOs result.
- B. Indirect assessment by questionnaires: includes two questionnaires which will be used to score the perception of student competence by the program's advisory committee and the program relevant stakeholders (students, staff members, graduates and employers). Both questionnaires will represent a weight of 20% of the total PLOs result (10% for each).

All required information is available in:

- [Botany program learning outcomes assessment plan](#)

5. Program Evaluation Matrix





Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Program leadership	Staff members	Surveys and interviews	End of academic year
Effectiveness of teaching & assessment	Students and independent reviewers	Surveys and interviews	End of academic year
Learning resources	Students	Surveys	Beginning of semesters
Students' educational services	Staff members and students	Surveys	Beginning of semesters
Students' professional skills	Stakeholders, graduates and employers	Surveys and interviews	End of academic year

Evaluation Areas/Aspects (e.g., leadership, effectiveness of teaching & assessment, learning resources, partnerships, etc.)

Evaluation Sources (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others (specify))

Evaluation Methods (e.g., Surveys, interviews, visits, etc.)

Evaluation Time (e.g., beginning of semesters, end of academic year, etc.)

6. Program KPIs*

The period to achieve the target (4) years.

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
1	KPI-P-01	Percentage of achieved indicators of the program operational plan objectives	62.0%	Statistics	End of academic year
2	KPI-P-02	Students' evaluation of quality of learning experience in the program	3.50	Surveys	End of academic year
3	KPI-P-03	Students' evaluation of the quality of the courses	3.85	Surveys	End of each semester
4	KPI-P-04	Completion rate	70.0%	Statistics	End of each semester
5	KPI-P-05	First-year students retention rate	75.0%	Statistics	End of academic year
6	KPI-P-06	Students' performance in the professional and/or national examinations	51.0%	Statistics	End of academic year





No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
7	KPI-P-07	Graduates' employability and enrolment in postgraduate programs	Employability: 14.0% Enrolment in postgraduate programs: 10.0%	Statistics	6 months after graduation
8	KPI-P-08	Average number of students in the class	15.0	Statistics	End of each semester
9	KPI-P-09	Employers' evaluation of the program graduates proficiency	4.85	Surveys	6 months after graduation
10	KPI-P-10	Students' satisfaction with the offered services	3.60	Surveys	End of each semester
11	KPI-P-11	Ratio of students to teaching staff	15:1	Statistics	End of each semester
12	KPI-P-12	Percentage of teaching staff distribution	Gender Male: 45% Female: 55% Scientific Ranking Prof. 20% Assoc. Prof. 25% Assist prof. 40% Other 15%	Statistics	End of academic year
13	KPI-P-13	Proportion of teaching staff leaving the program	2.0%	Statistics	End of academic year
14	KPI-P-14	Percentage of publications of faculty members	89.0%	Statistics	End of academic year
15	KPI-P-15	Rate of published research per faculty member	6.8:1	Statistics	End of academic year
16	KPI-P-16	Citations rate in refereed journals per faculty member	56.0:1	Statistics	End of academic year
17	KPI-P-17	Satisfaction of beneficiaries with the learning resources	3.64	Surveys	End of academic year





No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
18	TU-B-01	Percentage of program students participating in community service activities	10.5%	Statistics	End of academic year
19	TU-B-02	Percentage of faculty members of the program participating in community service activities	26.0%	Statistics	End of academic year

* Including KPIs required by NCAAA

H. Specification Approval Data:

Council / Committee	Biology Department
Reference No.	Committee number 1 – Academic Year 1445H (2023-2024G)
Date	29/08/2023G –12/02/1445H

