KINGDOM OF SAUDI ARABIA
Ministry of Education
University of Tabuk
Faculty of Science
Department of Biology

المملكة العربية السعودية
وزارة التعليـــــم-
جـامـعـة تـبـوك
كلية العلوم
قسم الأحياء

Biology Program Guide

Department of Biology

1447

Faculty of Science: Background History:

Faculty of Science, established under the decision of the Board of Higher Education No. 15/37/1426 H. And the approval of the Custodian of the Holy Prime Minister and Chairman of the Board of Higher Education may God preserve him guidance No. 9683 / m. E on 5/8/1426 and was a branch of the King Abdulaziz University in Tabuk including the following departments that offer the bachelor's degree, Mathematics, Physics, Chemistry, and Biology.

A. Vision, Mission, values, and Objectives:

Faculty of Science Vision:

"A distinguished facultyineducationandscientific research to serve the community."

Faculty of Science Mission:

"Offering an outstanding academic learning to graduate qualified human cadres in the theoretical and applied sciences to meet the needs of the labor market and society in accordance with an environment that supports scientific research."

Faculty of Science values:

- Social responsibilities.
- Quality and excellence.
- Leadership.
- Creativity and innovation.
- Honesty transparency.

Objectives:

1. To improve students' ability and capability in the various faculty programs and work to develop new programs for graduate studies in all departments.

2. To enhance faculty staff efficiency attract more expertise and dispatch distinct students to obtain M.Sc. degree and doctorate.
3. To increase the effectiveness of the means of improvement and qualitative development of the faculty; by holding specialized scientific seminars and scientific conferences, and feedback from students about faculty members.
4. To assess and design modern curricula for the Faculty, and to study the creation of new programs in the faculty in line with development requirements and the needs of the labor market.
5. To cooperate and coordinate with Faculties of Science at other national and international institutions and stand on the experiences of similar faculties inside and outside the Kingdom in the areas of faculty programs to obtain academic accreditation.
6. To encourage faculty research activities for community uplift, and develop the system of scientific research, by establishing state-of-the-art research laboratories, and the issuance of a special scientific journal for the faculty.

B. Academic Departments:

1. Department ofBiology.
2. Department ofChemistry.
3. Department ofPhysics.
4. Department ofMathematics.
5. Department ofBiochemistry.
6. Department ofStatistics.

C. Degrees Offered:

1. Bachelor of Science in Biology.
2. Bachelor of Science in Chemistry.
3. Bachelor of Science in Physics.
4. Bachelor of Science in Mathematics.
5. Bachelor of Science in Biochemistry.
6. Bachelor of Science in Statistics.

Head of Biology Program word:

Praise be to God, Lord of the Worlds, and prayers and peace be upon the most honorable of the prophets and messengers, our master Muhammad and his family and all his companions, and after; I am pleased to welcome you to the official website of the program of Biology, Faculty of Science, University of Tabuk, and it gives me great pleasure to speak to you on behalf of the rest of my fellow members of the program and on my own behalf. The faculty and program staff members of the faculty, technicians, and administrators who had an active and pioneering role in developing the program's outputs, whether at the level of quality of teaching and learning or at the level of research publications in scientific journals such as genetics research, molecular biology, research of microorganisms, plant and environmental sciences, animal science research, biotechnology and nanotechnology and others In addition to the serious and continuous endeavor to develop the laboratories and laboratories of the educational and research program and to develop study programs and curricula in accordance with quality standards and the requirements of the labor market. The framework of the national vision of our beloved Kingdom 2030.

Head of Biology program

Dr. Ra'fat Al-Qurashi.

Biology Program

Biology program journey " vibrant society, thriving economy, ambitious nation" vision 2030.

Emergence:

The study was started in the Biology Department in the academic year 1429/1430 AH (2008/2009) AD.

Vision:

"Excellence in qualified graduators ready to perform scientific research and to contribute to sustainable development in society."

Mission:

"Providing graduates with biological sciences through an exceptional curriculum and supportive learning environment to prepare them to compete in Labor Market and scientific research and to serve the community"

Values:

- Social responsibilities.
- Quality and excellence.
- Leadership.
- Creativity, and innovation.
- Honesty.
- Transparency.

Program's Objectives:

1. Creating a curriculum that promotes critical thinking, analysis, and the application of biological programs.
2. Creating many tracks in the curriculum (zoology/Plant/microbiology/environment).

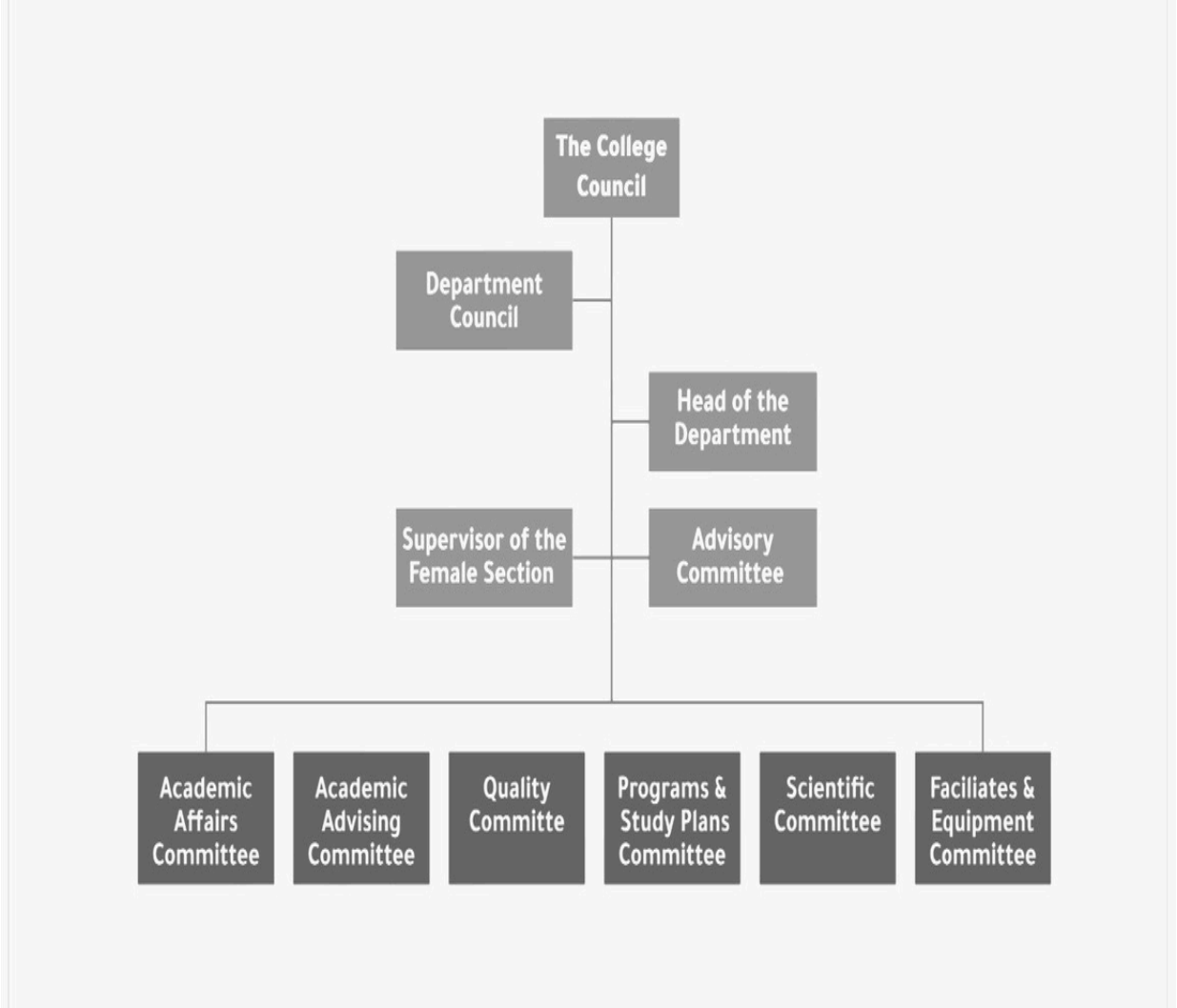
3. Raising students' academic achievement.
4. Strengthening and improving faculty and staff members' abilities.
5. Encouraging participation in research programs and specialized scientific conferences.
6. Encouraging effective community cooperation and communication.

Program's goals:

- Developing a stimulating academic environment that meets the needs of beneficiaries.
- Graduating distinguished cadres in the fields of Biology in line with the needs of the labor market.
- Strengthening the scientific research system to develop the educational process and solve the problems of society.
- Developing community services to raise community awareness regarding environment issues.

The mission, goals, andobjectives were developed and modified to cope with the various political,economic, social, and cultural changes that have affected the Kingdom andthe University of Tabuk. The mission & goals of the B.Sc. in Biology program agree with the mission & goals of the Department of Biology,Faculty of science as well as the University of Tabuk. (detailed in BiologyProgram Quality Assurance guide).

Organization Structure of the Department of Biology:



Domain	The department's organizational environment
Goal	• Describing the management system for all activities in the department. • Annotating tasks. • Listing responsibilities and permissions. • Determining the procedures that lead to achieving the objectives of the department's organizational environment. • Ensuring alignment between the department's tasks and activities and the functions and activities of the college. • Ensuring the participation of all members of the department in the management and implementation of work and decision-making
Responsibility	Department Head, Department Supervisor, Quality Manual Preparation Team
Reference	• College organizational structure. • Requirements of the National Center for Academic Accreditation and Assessment Standards. • A guide to the tasks and duties of leaders at the University of Tabuk. • Guide to the organizational structure of the colleges at the university. • Tasks Guide for Faculties and Deanships at the University
Procedures	• Preparing detailed lists of the academic and administrative activities in the department. • Determining the organizational relationships of these activities with the various departments and units in the college at different levels, vertically and horizontally. • Defining a communication network that allows achieving consistency with the organizational structure of the college to help exchange information, implement plans, and take decisions in harmony and without overlap or duplication in the work. • Distribution of tasks, responsibilities, assignments, and implementation mechanisms. • Determining the follow-up mechanism through the department council. • Designing job description cards.
Outputs	• Minutes of approval of the organizational structure. • Job description cards.

The Committees of the Biology Program in the Department of Biology

The committees of the Biology Program in the Department shall be constituted as follows:

1.	**Scientific Committee.**
	1- Reviewing and developing the department's postgraduate program plans. 2- Conducting admission tests for applicants for postgraduate studies and nominating their admission proposal (according to the specializations appropriate to the graduate studies plan) to the Section Council. 3- Make a scholarship plan for the department in which the specializations that have a deficit in the department are identified. 4- Follow up on the status of teaching assistants and those on scholarships abroad and prepare databases for them. 5- Checking the files of applicants for promotion before submitting them, and ensuring that the candidate meets the conditions and regulations. 6- Supervising all quality works in the graduate studies program. 7- Preparing a quarterly executive plan for the work of the committee and the tasks of the members. 8- The head of the committee is charged with setting up a meeting through (Sahel) periodically to be determined by the head of the committee and discussing the relevant issues with the members, coming out with the results and recommendations, and approved by the head of the Department.
2.	**Facilities and Equipment Committee.**
	1- To encourage scientific publication in scientific journals of international classification. 2- Create and update a database of research and projects published by faculty members. 3- Organizing seminars, courses, symposia, and scientific visits to the department. 4- Preparing programs for the students' scientific activities. 5- Regulating scientific cooperation mechanisms with business sector institutions. 6- Write an annual report on the scientific research that has been published in the committee and hand it over to the department head. 7- Spreading awareness among male and female students about the definition of laboratories and how to deal with tools, materials, and devices within the permissible framework inside the laboratories. 8- Make an inventory on a quarterly and annual basis of the contents of the lab, write a report on this, and submit it to the department head. 9- Organizing maintenance and repair of laboratory equipment. 10- Preparing the annual department orders for equipment, reagents, chemicals and studying the submitted offers.

	11- Inspect and receive the incoming equipment after making sure that it conforms to the specifications. 12- Put development plans for laboratories and research laboratories in the department. 13- Preparing a quarterly executive plan for the work of the committee and the tasks of the members. 14- The head of the committee is charged with setting up a meeting through (Sahel) periodically (every month) and discussing the relevant issues with the members, coming out with the results and recommendations, and approved by the head of the Department.
3.	**Study Programs and Plans Committee**
	1- Supervising the development or activation of academic programs in the department in line with the needs of the labor market. 2- Preparing the strategic and executive plan for the program and supervising its implementation. 3- Preparing an annual follow-up report on the program based on performance indicators that give accurate details of the activities carried out during the year. 4- Preparing the program's self-study every five years for periodic review. 5- Review and update the curricula in the program in line with the program's objectives and the needs of the labor market. 6- Determining the department's future needs in terms of specific disciplines, references, and laboratory equipment. 7- Follow up on the availability of books needed by the department in the department and college library. 8- Carry out course equivalency. 9- Studying new proposals submitted in the department to develop curricula. 10- Communicate with the Unit of Measurement and Evaluation at the college and university and follow up on the work. 11- Analysis of student questionnaires (course evaluation questionnaire, program evaluation questionnaire, graduate's questionnaire, student experience questionnaire) and writing recommendations based on the results. 12- Preparing a quarterly executive plan for the work of the committee and the tasks of the members. 13- The head of the committee is charged with setting up a meeting through (Sahel), discussing the relevant issues with the members, and coming up with the results and recommendations. It is approved by the department head.
4.	**Development and Quality Committee**
	1- Communicate with the Academic Accreditation Unit at the college, and spread the culture of quality. 2- Develop mechanisms that ensure quality performance in the program. 3- Preparing and updating the mission, vision, and objectives of the program.

	4- Supervising the compilation of course files. 5- Examine the course reports and fill out the course report release form. 6- Follow up on the visit of experts and academic accreditation bodies to the program. 7- Preparing all work and requirements of the National Qualifications Framework. 8- Writing a quarterly report on what has been accomplished and the obstacles. 9- Hold a quarterly meeting to discuss the reports of the committees in the department. 10- Preparing a quarterly executive plan for the work of the committee and the tasks of the members. 11- The head of the committee is charged with setting up a meeting through (Sahel), discussing the relevant issues with the members, and coming up with the results and recommendations. It is approved by the head of the Department.
5.	**Academic Advisory Committee.**
	1- Drawing up general plans for academic advising and activating the primary role of the academic advisor. 2- Communicate and coordinate with the academic affairs of the college and university and prepare all that is required to be prepared. Counting the number of students in the department and registering. 3- Student's statistical data. 4- Representing the department in the general committees for student activities at the college level. 5- Supervising tests, excuses, and equations. 6- Preparing the department's schedules for the next semester by filling in the study schedules forms for compulsory, elective, and network subjects. 7- Inventory of the department's needs of academic courses, the number of divisions, and the needs of the female students expected to graduate. 8- Collecting and tabulating the personal data of the students expected to graduate from the department. 9- Supervising the profession day. 10- Develop communication programs, whether electronic or otherwise, to strengthen the relationship between graduate students and employers. 11- Follow up with the department's graduates after their employment to benefit from the results of their feedback. 12- Preparing a quarterly executive plan for the work of the committee and the tasks of the members. 13- The head of the committee is charged with setting up a meeting through (Sahel), discussing the relevant issues with the members, and coming up

	with the results and recommendations. It is approved by the head of the Department.
6.	**Academic Affairs Committee.**
	1- Preparation and revision of study schedules in coordination with faculty Academic Affairs Committee. 2- Identifying the program and graduating students' needs of courses and sections. 3- Supervision of course registration, addition, and deletion for the students. 4- Holding practicals through field visits, hospitals, and factories to supply students. 5- Supervision of examinations and excuses. 6- Preparation of examination and invigilation schedules. 7- Provision of statistics needed for the annual program report. 8- Preparation of periodic executive plan for the committee and members' activities. 9- Submission of periodic reports about the committee activities to the department.

Graduate Attributes:

Graduate attributes	Attribute definition
Proficiency in Biology.	Mastery of knowledge in the fields of biology, environmental sciences, and other related basic sciences. Familiarity with procedures, tools, and basic techniques used in the different fields of biology.
Familiar with biological techniques.	Effective use of techniques and information technology in the different fields of biology. The use and sharing of techniques and technologies among the various specialties of biological sciences.
Creative and innovative.	Troubleshooting and critical thinking related to the fields of biology and environmental sciences and figuring out innovative solutions. Independent self-learning required for continual professional development and problem-solving.
Effectve communicator.	Making effective decisions as a member or as a leader and showing efficiency in interpersonal relations and flexible communicative skills in different real-life situations.
Specialized in Biology and its applications.	Professionalism and verification in studies, inventions, and discoveries relevant to biology and the acquisition of knowledge and awareness of environmental problems and their scientific solutions.

Aware of environmental sustainability.	Making effective decisions as a member or as a leader and showing efficiency in interpersonal relations and flexible communicative skills in different real-life situations.

Professional Occupations/Jobs:

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

JobDescription	Code
Biological Sciences Specialist	213101
Biophysics Specialist	213103
Biotechnology Specialist	213104
Botanist	213105
Zoologist	213106
Marine Biologist	213107
Entomologist	213108
Genetic Specialist	213110
Embryologist	213111
Bacteriologist	213112
Epidemiologist	213113
Microbiologist	213114
Secondary Teacher of Biology (Teacher training with subject Specialization)	233009

Degree Offered:

Theprogramoffers a Bachelor of Science degree in Biology.

The Current Study Plan

Study Plan General Components

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	**9**	**20**	**15.4%**
	Elective	**0**	**0**	**0**
College Requirements	Required	**7**	**25**	**19.2%**
	Elective	**0**	**0**	**0**
Program Requirements	Required	**23**	**72**	**55.4%**
	Elective	**3**	**09**	**6.9%**
Capstone Course/Project		**1**	**4**	**3.1%**
Others				
Total		**43**	**130**	

Note: - University Courses (10-20%) - Faculty Courses (10-20%) - Department Courses (6
80%)oCompulsory (50%) - Electives (6-8%) - Free Courses -if any- (2-4%).

University Compulsory Requirements.

	Courses Title	Course Code	Credits		Prerequisites
			Credit	Contact	
1	Learning, Thinking, & Research Skills Computer Skills	LTS 001	3	3	-
2	Communication Skills	CSC 001	3	3	-
3	IslamicCulture 1 Language Skills	COMM 001	2	2	-
4	IslamicCulture 2 IslamicCulture	ISLS 101	2	2	-
5	3	ARAB 101	2	2	-
6	WritingSkills	ISLS 201	2	2	ISLS101
7	IslamicCulture 4	ISLS 301	2	2	ISLS201
8		ARAB 201	2	2	ARAB101
9		ISLS 401	2	2	ISLS301
	Total		**20**	**20**	

College Compulsory Requirements

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	Mathematics 1	MATH 100	3	-	-	3	-
2	General Chemistry	CHEM 101	3	-	-	3	-
3	General Biology	BIO 101	3	-	-	3	-
4	English 1	ELS 001	15	-	-	5	-
5	General Physics	PHYS 101	3	-	-	3	-
6	English 2	ELS 002	15	-	-	5	ELS001
7	Mathematics2	MATH 101	3	-	-	3	MATH100
	Total		**45**	**-**		**25**	

Department Elective Requirements.

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	Bacteriology	BIO333	2	2		3	BIO231
2	Physiology of Microorganisms	BIO336	2	2		3	BIO231
3	Plant Anatomy	BIO342	2	2		3	BIO341
4	Medicinal Plants of KSA	BIO349	2	2		3	BIO341

5	Animal Specimen Preparation	BIO356	2	2		3	BIO351
6	Agricultural and Medical Entomology	BIO458	2	2		3	BIO359

Department Core Requirements.

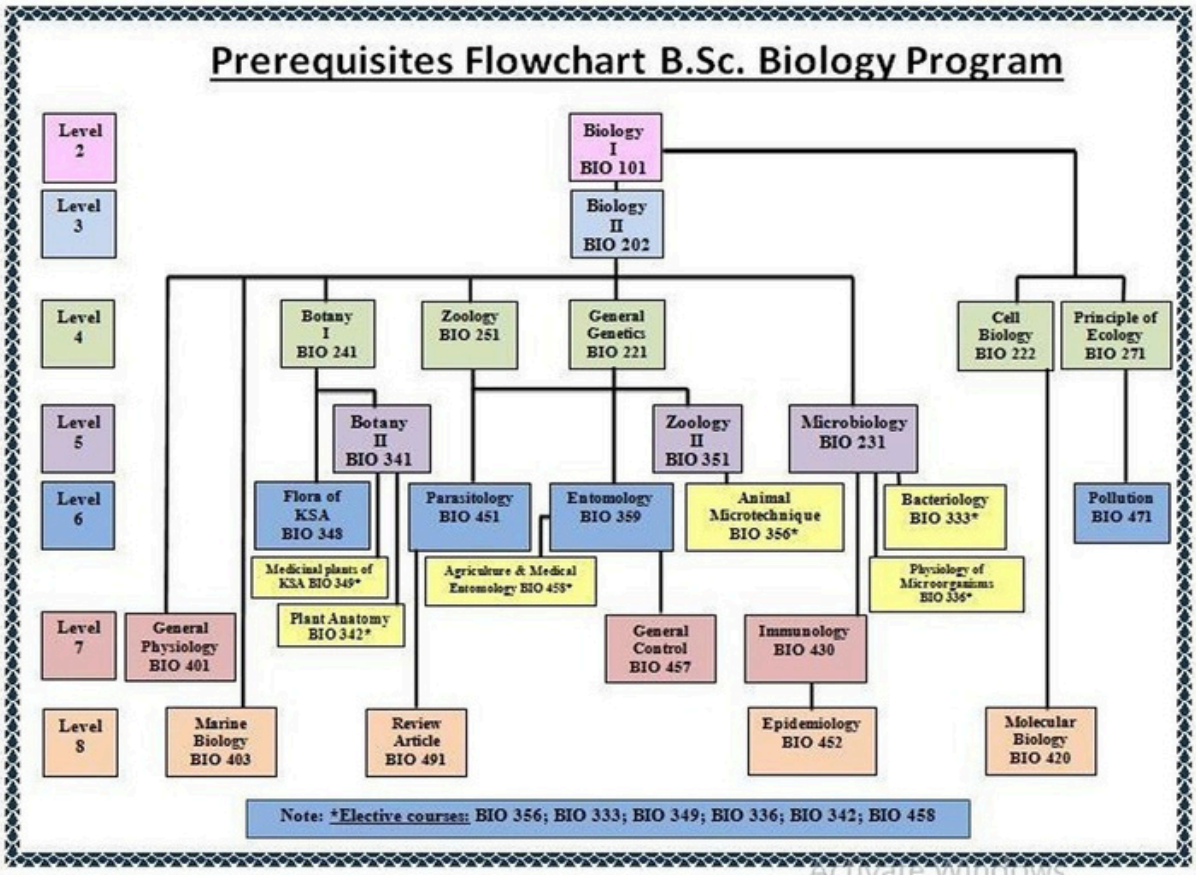
	Course Title	Course Code	Contact Hours			Credit	Pre-requisites
			Theoretical	Practical	Training		
1	GeneralChemistry	CHEM201	3	3		4	-
2	GeneralBiology 2	BIO202	3	2		4	BIO101
3	Biostatistics	STAT262	3	2		4	MATH101
4	CellBiology	BIO222	2	2		3	BIO101
5	GeneralGenetics	BIO221	2	2		3	BIO202
6	GeneralBotany 1	BIO241	2	2		3	BIO202
7	GeneralZoology 1	BIO251	2	2		3	BIO202
8	Principlesof Ecology	BIO271	2	2		3	BIO202
9	General Microbiology	BIO231	2	2		3	BIO202
10	GeneralBotany 2	BIO341	2	2		3	BIO241
11	GeneralZoology 2	BIO351	2	2		3	BIO251
12	Biophysics	BIO310	2	2		3	-
13	General Entomology	BIO359	2	2		3	BIO251
14	Parasitology	BIO451	2	2		3	BIO251
15	FloralofKSA	BIO348	2	2		3	BIO241
16	Environmental Pollution	BIO471	2	2		3	BIO271
17	General Physiology	BIO401	2	2		3	BIO202
18	Immunology	BIO430	2	2		3	BIO231
19	Biochemistry	CHEM438	2	2		3	CHEM101
20	GeneralControl	BIO457	2	2		3	BIO359
21	Epidemiology	BIO452	2	2		3	BIO430
22	ResearchProject	BIO491	4	2		4	-
23	MolecularBiology	BIO420	2	2		3	BIO222
24	MarineBiology	BIO403	2			3	BIO202
	Total		**53**	**47**		**76**	

Study Plan Courses & Levels

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	COMM001	Communication Skills	Required	-	2	Institution
	CSC001	Computer Skills	Required	-	3	Institution
	ESC001	English (1)	Required	-	5	College
	MATH100	Mathematics (1)	Required	-	3	College
	PHYS101	General Physics	Required	-	3	College
Level 2	LTS001	Learning, Thinking and Research Skill	Required	-	3	Institution
	ESC002	English (2)	Required	ESC 001	5	College
	BIO101	General Biology	Required	-	3	College
	CHEM101	General Chemistry	Required	-	3	College
	MATH101	Mathematics (2)	Required	MATH 100	3	College
Level 3	CHEM201	General Chemistry	Required	-	4	Program
	BIO202	General Biology 2	Required	BIO101	4	Program
	STAT262	Biostatistics	Required	MATH 101	4	Program
	ARB101	Arabic language	Required	-	2	Institution
	ISLS101	Islamic Culture (1)	Required	-	2	Institution
Level 4	BIO221	General Genetics	Required	BIO 202	3	Program
	BIO222	Cell Biology	Required	BIO 101	3	Program
	BIO241	General Botany	Required	BIO 202	3	Program
	BIO251	General Zoology	Required	BIO 202	3	Program
	BIO271	Principles of Ecology	Required	BIO 101	3	Program
	ISLS 201	Islamic Culture (2)	Required	ISLS 101	2	Institution
Level 5	BIO231	General Microbiology	Required	BIO202	3	Program

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	BIO310	Biophysics	Required	-	3	Program
	BIO341	General Botany (2)	Required	BIO241	3	Program
	BIO351	General Zoology (2)	Required	BIO251	3	Program
	ARB 201	Arabic language	Required	ARB 101	2	Institution
	ISLS 301	Islamic Culture (3)	Required	ISLS 201	2	Institution
Level 6	BIO348	Flora of KSA	Required	BIO241	3	Program
	BIO359	Entomology	Required	BIO251	3	Program
	BIO451	Parasitology	Required	BIO251	3	Program
	BIO471	Ecological Pollution	Required	BIO271	3	Program
	ISLS 401	Islamic Culture (4)	Required	ISLS 301	2	Institution
Level 7	BIO401	General Physiology	Required	BIO202	3	Program
	BIO430	Immunology	Required	BIO231	3	Program
	CHEM438	Biochemistry	Required	CHEM101	3	Program
	BIO457	General Control	Required	BIO359	3	Program
Level 8	BIO403	Marine Biology	Required	BIO202	3	Program
	BIO420	Molecular Biology	Required	BIO222	3	Program
	BIO452	Epidemiology	Required	BIO430	3	Program
	BIO491	Research & Essay		BIO451	4	Program

Pre-requisite flow chart (current plan)



The Developed Study Plan

Plan General Components

Prerequisites		Credits	Courses	Weights %
Institutional requirements	Required	26	10	18.84%
	Elective	13	5 6	9.42%
College requirements	Required	15		10.87%
	Elective			
Department requirements	Compulsory	69	23	50.00%
	Electives	9 3	3 1	6.52%
Capstone Course/Project		3	1	2.18%
Field Training/ Internship				2.18%
Residency year				
Others				
Total		**138**	**69**	**100%**

University Compulsory Requirements.

No	Course Name	Course Code	Actual credits			Credit hours	Pre-requisite
			Theory	Practical	Training		
1.	English Language(1)	ELS1101	15			3	
2.	English Language(2)	ELS1102	15			3	ELS1101
3.	Communication Skills	CID1101	2			2	
4.	Islamic Culture	ISLS1101	2			2	
5.	Arabic Language Skills	ARAB1101	2			2	
6.	and Ethics values {ivilizational Thinking, in Islam	ISLS1201	2			2	ISLS1101
7.	Learning, and Research Skills	EDUF1102	3			3	
8.	Computer Skills and Applications	CSC1101	2	2		3	
9.	Intro to Mathematics	MATH1101	3			3	
10.	Calculus	MATH1102	3			3	MATH1101
Total			**49**	**2**		**26**	

University Elective Requirements

No	Name	Course Code	Actual credits			Credit hours	Pre-requisite
			Theoretical	Practical	Training		
1.	Elective Personal and Professional Development	GEE_P	2		-	2	-
2.	Elective technical	GEE_T	2	2	-	3	-
3.	Elective Language	GEE_L	3	-	-	3	-
4.	Elective Culture	GEE_C	2	-	-	2	-
5.	Elective Natural and Social Sciences	GEE_S	2	2	-	3	-
Total			11	4		13	

College Compulsory Requirements.

Course Title		Course Code	Contact Hours			Credit	Pre-requisites
			Theoretical	Practical	Training		
1	Fundamentals of Chemistry	CHEM1101	2	2	-	3	-
2	Fundamentals of Physics	PHYS1101	2	2	-	3	-
3	Fundamentals of Biology	BIO1101	2	2	-	3	-
4	Principles of Environmental Sustainability	BIO1201	2	-	-	2	-
5	Natural Resources	PHYS1206	2	-	-	2	-
6	Biodiversity	BIO1208	2			2	-
Total			**12**	**6**		**15**	

Department Elective Requirements.

Course Title		Course Code	Contact Hours			Credit	Pre-requisites
			Theoretical	Practical	Training		
1	Phycology	BIO1403	2	1	-	3	BIO1301 BIO1301
2	Taxonomy of FloweringPlants	BIO1404	2	1	-	3	BIO1206
3	Physiology of Microorganisms	BIO1405	2	1	-	3	

4 5	Animal Specimen Preparation	BIO1406	2	1	-	3	BIO1207
6	Plant Pathology	BIO1407	2	1	-	3	BIO1310
	Natural Reserves (Conservation and Management)	BIO1408	2	1	-	3	BIO1202
7 8	Animal Ecology and Behavior	BIO1409	2	1	-	3	BIO1207
9	Epidemiology	BIO1410	2	1	-	3	BIO1206
	Medicinal and Economic Plants	BIO1411	2	1	-	3	BIO1301
10	Embryology	BIO1412	2	1	-	3	BIO1207
11	Mycology	BIO1413	2	1	-	3	BIO1206
12	Medical and Agricultural Entomology	BIO1414	2	1	-	3	BIO1302
13	Plant Stress Physiology of	BIO1415	2	1	-	3	BIO1310
14	Bioremediation Pollutants	BIO1416	2	1	-	3	BIO1206 CHEM1202
Total			**28**	**14**	**-**	**42**	

Department Core Requirements.

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	Introduction to Biostatistics	STAT 1251	2	2	-	3	
2	Principles of Ecology	BIO 1202	2	2	-	3	BIO1101
3	Cell and Tissue Biology	BIO 1203	2	2	-	3	BIO1101
4	Invertebrates	BIO 1204	2	2	-	3	BIO1101
5	Organic Chemistry 1	CHEM 1202	2	2	-	3	CHEM1101
6	General Botany 1	BIO 1205	2	2	-	3	BIO1101
7	General Microbiology	BIO 1206	2	2	-	3	BIO1101
8	Vertebrates	BIO 1207	2	2	-	3	BIO 1204

9	General Botany 2	BIO 1301	2	2	-	3	BIO1205
10	General Entomology	BIO 1302	2	2	-	3	BIO1204
11	Bacteriology	BIO 1303	2	2	-	3	BIO1206
12	Environmental Pollution	BIO 1304	2	2	-	3	BIO1201
13	General Genetics	BIO 1305	2	2	-	3	BIO1203
14	Animal Physiology	BIO1306	2	2	-		BIO1207
15	Flora of KSA	BIO 1307	2	2	-	3	BIO1208
16	Parasitology	BIO 1308	2	2	-	3	BIO1204
17	Molecular Biology	BIO 1309	2	2	-	3	BIO1305
18	Plant Physiology	BIO 1310	2	2	-	3	BIO1301
19	Immunology	BIO 1311	2	2	-	3	BIO1206
20	General Control	BIO 1401	2	2	-	3	BIO1306 BIO1302
21	Marine Biology	BIO 1402	2	2	-	3	BIO1207 PHYS1206
22	Project	BIO 1498	3	-	-	3	BIO1309
23	Bioinformatics	BIOC 1403	2	2	-	3	BIO1309
24	Biotechnology	BIO1404	3	-	-	3	BIO1309
25	Training	BIO1495	-	-	12	3	BIOC1403
Total			**50**	**42**	**12**	**72**	

Study Plan Courses & Levels

1st level — 1st year

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	Fundamentals of Chemistry	CHEM 1101	2	2	-	3	-
2	Communication Skills	CID 1101	2	-	-	2	-
3	Computer-based Problem Solving.	CSC 1102	2	2	-	3	-
4	Language English (1)	ELS 1101	15	-	-	3	-
5	Islamic Culture	ISLS 1101	2	-	-	2	-
6	Introduction Mathematics to	MATH 1101	3	-	-	3	-
7	Introduction Biostatistics to	STAT 1251	2	2	-	3	-
Total			**28**	**6**	**-**	**19**	

2nd level — 1st year

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	Arabic Language Skills	ARAB 1101	2	-	-	2	-
2	Fundamentals of Biology	BIO 1101	2	2	-	3	-
3	Critical Thinking Skills	EDUF 1102	3	-	-	3	-
4	English Language (2)	ELS 1102	15	-	-	3	ELS 1101
5	Calculus	MATH 1102	3	-	-	3	MATH 1101
6	Fundamentals of Physics	PHYS 1101	2	2	-	3	-
Total			**27**	**4**	**-**	17	-

3rd level — 2nd year

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	Fundamentals of Environmental Sustainability	BIO 1201	2	-	-	2	-

2	Principles of Ecology Tissue	BIO 1202	2	2	-	3	BIO 1101
3	Cell and Biology	BIO 1203	2	2	-	3	BIO 1101
4	Invertebrates	BIO 1204	2	2	-	3	BIO 1101
5	Biochemistry (1)	CHEM 1202	2	2	-	3	CHEM 1101
6	Natural Resources	PHYS 1206	2	-	-	2	-
Total			**12**	**8**	**-**	**16**	

4th level 2nd year

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	General Botany (1)	BIO 1205	2	2	-	3	BIO1101
2	General Microbiology	BIO 1206	2	2	-	3	BIO1101
3	Invertebrates	BIO 1207	2	2	-	3	BIO1204
4	Biodiversity	BIO 1208	2	-	-	2	-
5	Ethics and Values in Islam	ISLS 1201	2	-	-	2	ISLS1101
Total			**10**	**6**	**-**	**13**	

5th level 3rd year

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	General Botany (2)	BIO 1301	2	2	-	3	BIO 1205
2	General Entomology	BIO 1302	2	2	-	3	BIO 1204
3	Bacteriology	BIO 1303	2	2	-	3	BIO 1206
4	Environmental Pollution	BIO 1304	2	2	-	3	BIO 1201
5	General Genetics	BIO 1305	2	2	-	3	BIO 1202
6	Animal Physiology	BIO 1306	2	2	-	3	BIO 1203
Total			**12**	**12**	**-**	**18**	

6th level — 3rd year

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	Flora of KSA	BIO 1307	2	2	-	3	BIO 1208 BIO 1301
2	Parasitology	BIO 1308	2	2	-	3	BIO 1204
3	Molecular Biology	BIO 1309	2	2	-	3	BIO 1305
4	Plant Physiology	BIO 1310	2	2	-	3	BIO 1301
5	Immunology	BIO 1311	2	2	-	3	BIO1206 BIO 1306
Total			**10**	**10**	**-**	**15**	

7th level — 4th year

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		
1	General Control	BIO 1401	2	2	-	3	BIO 1302
2	Marine Biology	BIO 1402	2	2	-	3	BIO1207 PHYS1206
3	Project	BIO 1498	3	-	-	3	BIO1309
4	Bioinformatics	BIOC 1403	2	2	-	3	BIO1309
5	Biotechnology	BIOC 1404	3	-	-	3	BIO1309
Total			**12**	**6**	**-**	**15**	

8th level — 4th year

	Course Title	Course Code	Contact Hours			Credit	Prerequisites
			Theoretical	Practical	Training		BIOC1403
1	Training	BIO 1495	-	-	12	3	
Total			**-**	**-**	**-**	**3**	

Services offered to students.

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 1443, the University of Tabuk admits students who meet the following main requirements *(https://www.https://www.ut.edu.sa/ar/Faculties/science/Pages/default.aspx*

- The applicant must be a Saudi or of a Saudi mother.
- The applicant must have a high school certificate or equivalent from inside or outside the Kingdom.
- If a high school certificate is issued from outside the Kingdom of Saudi Arabia, it should be equalized by the Ministry of Education's Certificate Equivalency Committee.
- The system of study in the high school stage should be a full-time study system.
- The high school certificate should not have passed more than five years. That is, the certificate was issued in the academic year 1437 AH - 1438 AH and onwards, taking into account the special conditions of health specialization.
- The applicant's age should not be more than 25 years, i.e. born in 1996 AD and later.
- The Standard Achievement Admission Test (SAAT) score should not be less than 50% (the available score will be approved during application).
- The General Aptitude Test (GAT) score shall not be less than 50% (the available score will be approved during application).
- The validity of the SAAT and GAT is as determined by the Education and Training Evaluation Commission.
- The applicant should not have a previous academic record at the University of Tabuk during the last four academic years. If it becomes apparent after

the final acceptance that he/she has an academic record, his/her acceptance will be canceled. The applicant should not be dismissed from the university - or any other university in an academic or disciplinary field. If it becomes apparent after the final acceptance that he/she has been dismissed, his/her acceptance will be canceled. Also, students with disabilities who fulfill these requirements are accepted, except for those with mental and visual - disabilities.
2. Guidance and Orientation Programs for New Students
ü It aims to provide a holistic welcoming experience for new students, and the orientation is relegated by the university to the faculty and department. ü Available on the web page of admission and registration: https://www.ut.edu.sa/ar/Faculties/science/biology department/Pages/default.aspx Students admitted to the Statistics 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. 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: ü The Student Guide Handbook. ü Contact information. ü Academic counseling guide. ü Executive rules for student grievances. Services offered to students. ü The rules of study and exams at UT. ü The Academic Calendar. ü Location of the classrooms prior to the beginning of classes. ü IT guide including how students can activate their email account and change their password. ü In addition, Students' satisfaction with the orientation program is evaluated through a questionnaire.
3. **Student Counseling Services**. (academic, career, psychological, and social)
Counseling manuals are available at the following link: *https://drive.google.com/drive/folders/17v83rBsSfxeVHKz_Nc9F3N0U5SKykFg?usp=sharing*

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 GPA, 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.

- All these structures provide students with adequate academic, vocational, psychological, and social counseling and guidance and continuously improve their services.

4. Special Support.
(low achievers, disabled, gifted, and talented)

1. The program has an Academic Advisory Committee whose goal is to ensure sufficient counseling 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 counseling.
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 provides a supportive education program for students with poor academic performance to improve their academiclevel.

Disabled:

-
- Providingelectric lifts.
- Providingprivate parking.
- Equippingthe stairs that help them climb their steps.
- **Gifted and Talented**:
- studentswill be advised to communicate with the Creativity and TalentUnit at the university. The Deanship of Student Affairs launchedthe program “Innovators” to investigate talented students as well astosupport and motivate them. Also, provide them with special trainingcourses.

Learning Resources, Facilities, and Equipment:

1. **Learning Resources**. Mechanism for providing and quality assurance of learning resources (textbooks, references, and other resource materials, including electronic 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 the library, 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 matches with the contents of the courses prior to 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 raised to the college to begin the procurement process.

2. Facilities and Equipment.
(Library, laboratories, medical facilities, 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 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 instruments 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 enough 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.

- The timing and the location of the central Library are detailed in the following. Link:*https://www.ut.edu.sa/ar/Deanship/library-affairs/Pages/Library-times.aspx*.
- The link to the Saudi digital library with all services offered to students is provided by their academic portal (SDL https://sdl.edu.sa/training/University.aspx?id=4).

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. Arrangements to Maintain a Healthy and Safe 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.

Brief of Regulation for Academic Study and Examination of Undergraduate Programs.

Article one: Definitions.

1.1. Academic year:

The maintwo semesters and thesummer semester if any.

1.2. Academic semester:

Each academic course is of duration not lessthan fifteenweeks, including the time of registration and final examination.

1.3. Academic study level.

It is indicative of the Academic study stage. The number of Academic study levels required for graduation is eight or more levels in accordance with the Academic Plans approved. **Course**.

1.4.

An academic subject follows a specific academic level within the academic plan approved in each specialization (program). Each course has a code, a number, a name, and a detailed description of its contents different from other course contents. A special file for each course should be maintained by the department, that for monitoring, evaluation, and development. Some courses may require one or more prerequisites, which may be studied simultaneously. **A unit of study:** It is a weekly theoretical lecture

1.5. given with a duration of fifty minutes. Academic warning: it is a direct notice to students whose cumulative GPA is below the minimum pass (2 of 5) as described in this directory.

1.6. Semester assignments degree.

It is a grade given to the student to clarify his performance generated from tests, research, and activities related to study courses during one semester.

1.7. The final exam:

It is a course exam, which is held once at the end of each semester.

1.8. The final exam degree:

It is a degree given to the student for each course at the final exam.

1.9. The final degree:

ItisthesumoftheSemesterassignmentsdegreeandthefinalexam degree.Itiscalculatedoutof100%BiologyProgram–Facultyof Science – University of Tabuk 15.

1.10. Grade:

Itisadescriptionofthepercentageorlettercodeofthefinaldegree assigned to the student's final degree in any course.

1.11. Incomplete Grade (IC):

Itisatemporarygradeassignedtoanycoursethatthestudentdoes not complete its requirement and usually has the code (IC).

1.12. In-Progress Grade:

Itisatemporarygradeassignedtoanycourse,whichneedsmore thanonesemestertocompleteitsrequirementandusuallyhasthe code (IP).

1.13. Semester Grade Point Average (SGPA) :

Itisthesumofallcoursepointsacquiredbythestudentsattheend ofasemesterdividedbythesumofplannedcreditedhoursassigned toallcourses.Thepointsequalthecourse'scredithourtimesthe gradeweight(lookathowtocalculatethesemester(GPA)attheend of this document).

1.14. Cumulative Grade Point Average (CGPA). It is thesumofallsemestercoursepointsacquiredbythestudentsatthe end oftheyeardividedbythesumofplannedcreditedhoursassignedto all courses(lookathowtocalculatethecumulative(GPA)fortheyearat the endofthisdocument).

Academic Levels and Studying System.

- Thedurationofstudyatthefacultyofscienceiseightlevelsandeach level is equivalent to one semester.
- Thestudentsshiftfromoneleveltoanotherlevel,iftheypassall prescribed courses of that level.
- Thestudent'sminimumstudyworkloadis(12)unitsofstudyorthe remainingunitsrequiredofcompletionforgraduationevenifitisless thantheworkload.Themaximumstudyworkloadis(24)unitsofstudy if the students are expected to complete the graduation.

- The student's cumulative grade point average (GPA) determines the maximum student's study workload for units of study. Students can be
- automatically registered students before the start of the semester. Students are enabled to delete and add courses according to the guidelines set by the Deanship of Admission and Registration. Biology Program– Faculty of Science – University of Tabuk 16.

1.15. Attendance and withdrawal

Regular students should compulsorily attend all course lectures and practical studies. The student will be prohibited from entering the final exam for any course during the first semester or the second semester if his attendance is less than (75%) and he will be assigned a grade (F) (Failure) or denial (DN). The student has the right to withdraw from continuing studying. In either the first or the second semester at least three weeks before the start of the final exams for each first or second semester, if and only if he can show an acceptable apology to the Faculty of Science Dean. The withdrawal from the continuous study must not exceed two consecutive semesters or three non-consecutive semesters. The student has a right to withdraw from one or more courses according to the following:

- The faculty of science Approval.
- Must apply to withdraw from any course before the fixed date for withdrawal time (apologize).
- The student in his final result will be assigned (w) for the course that he withdraws.

Postponement and drop out of studying:

- Students may apply for study postponement before the end of the first starting week of studying courses for an excuse acceptable to the dean of the faculty of science. If a regular student drops out of his studies for
- four weeks from the beginning of the semester without requesting a postponement, the Faculty Has a right to fold his registration.

- The student will not be considered to drop out from his studies, if and only if, he is studying some courses as a visit or at another university.

Student's Re-enrollment

A studentwithpleatedenrollment (Folding registration), Can apply for the facultytore-enroll him with the same identity number and registrationnumberaccording to the following:

- Students mayapplyforre-enrollment (Re-entry) during four semesters (or two years)startingfromthe date of pleated enrollment (collapse). The
- FacultyofScienceBoard approved an agreement on the student re-enrollment. If the studentpleatedenrolment past more than four
- semesters, he can apply for theFacultyofScience to admit him as a new student, without reference tothepreviousregistration, and to follow all the requirements stated at thetimeofadmission. The studentswillnotbeallowed to re-enroll more than once. The
- studentwillnotbeallowed to re-enroll if he is dismissed from the faculty
- of science.

Graduation:

Studentswillgraduatefrom the faculty of science after having successfullycompletedthe prescribed courses (study plan) with not less thanacumulativeGPA (2 OF 5).

Dismissing From the university Firstly:

Students will not be dismissed from theuniversity if one of the following cases occurred:

1. If the student receives, at most three consecutive warnings due to GPA less than the minimum pass (2:00).
2. If the students did not finish graduation requirements within a maximum of half time Scheduled for graduation, in addition to the duration of the program (4 years).

Graduation and Degrees of honor (Grading System)

Grade Limit	Grade	Grade Code	Grade Weight
95 -100	Exceptional	A+	**5**
90 to less than95	Excellent	A	**4.75**
85 to less than90	Superior	B+	**4.5**
80 to less than85	Very Good	B	**4**
75 to less than80	Above Average	C+	**3.5**
70 to less than75	Good	C	**3**
65 to less than70	High Pass	D+	**2.5**
60 to less than65	Pass	D	**2**
less than60	Fail	F	**1**
----------	In – Progress	IP	-----

1. Grade and degrees of honor obtained by the student in each course are calculated as follows:
2. The cumulative grade point average (GPA) awarded to the graduated student is as follows.

- Excellent: if the cumulative GPA of at least 4.5.
- Very Good: If the cumulative GPA of 3.75 to less than 4.5.
- Good: If the cumulative GPA of 2.75 to less than 3.75.
- Pass: If the cumulative GPA of 2.00 to less than 2.75.

3. A student who graduated with an accumulative grade point average (GPA) of (4.5) to (5) will be awarded a First Class Honors Degree, and the one who graduated with an accumulative grade point average (GPA) of (4.25) to less (4.75) will be awarded Second Class Honors Degree. The conditions required for awarding a First Class Honors Degree or Second Class Honors Degree are as follows:

- The student must not fail in any course taught to him at his university of graduation or any other university.
- The student must have completed graduation requirements at a maximum average duration (between a minimum and maximum stay in the Faculty).
- The student must have studied at the University of Tabuk at least 60% of the graduation requirements.

How to calculate the Semester (GPA) and average (GPA) for the year
Example: First semester.

Course	Credit Hours	%	Grade	Grade Weight	Points
Course 1	2	85	A+	4.5	9
Course 2	3	70	C	3	9
Course 3	3	92	A	4.75	14.25
Course 4	4	80	B	4	16
	12				**48.25**

$$\text{GPA for semester} = \frac{48.25}{12} = 4.02$$

Course	Credit Hours	%	Grade	Grade Weight	Points
Course 1	2	96	A+	5	10
Course 2	3	83	B	4	12
Course 3	3	71	C	3	9
Course 4	4	81	B	4	12
	12				**43**

$$\text{GPA for semester} = \frac{43}{12} = 3.58$$

$$\text{Aggregate GPA for the year} = \frac{48.25 + 43}{12+12} = 3.80$$

For any inquries, please contact us at:

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