



Program Specification

Program Name:	BIOLOGY
NQF Level :	6 (BACHELOR)
Department:	BIOLOGY
College:	SCIENCE
Institution:	JAZAN UNIVERSITY

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A. Program Identification and General Information

1. Program Main Location:

Jazan University (JU) Main Campus

2. Branches Offering the Program:

University College at Al Darb

3. Reasons for Establishing the Program:

(Economic, social, cultural, and technological reasons, and national needs and development, etc.)

(Economic, social, cultural, and technological reasons, and national needs and development, etc.)

Jazan is one of the most promising areas in Saudi Arabia and the government has paid special attention to its development for decades, provided all avenues for human development, therefore the decision to establish Jazan University was issued in 1426 Hijri, and due to the urgent need for some specializations necessary for the labor market in the region particularly and in the Kingdom generally. This will have an active role in driving the wheel of growth and development. In 1937H the decision no. (6/4/1437) was issued to approve the transformation of Biology department to a department that conferred a bachelor's degree in biology.

The program was established for achieving Saudi Arabia Vision 2030 (A vibrant society, a thriving economy and an ambitious nation) through.....

1. No Biology Program was offered for local community stakeholders. Hence, this program was established to provide local society with scientific expertise in Biology.
2. To provide society with skilled graduates to serve in occupations relevant to Botany, Zoology, Microbiology, Ecology, Wildlife, Agriculture, and Food and Dairy Industry.
3. Improve local youth chances for good job opportunity in Biology related establishments.
4. The Program Mission is in accordance with Kingdom Vision 2030 aiming to provide society with trained and skilled Saudi manpower.
5. To carry out research works related to the biological problems in the local area in order to promote the common health level for individuals.
6. To meet the regional and national needs for qualified biologists and to reduce the

shortage of professionals to reduce the cost of international recruitment.

The local need for high quality education.

4. Total Credit Hours for Completing the Program: (121 Credit Hours)

5. Professional Occupations/Jobs:

Career Opportunities:

- Education Sector (Ministry of Education: Teacher, Technician, and Instructor).
- Health Sector (Laboratory Technician).
- Microbiologists.
- Pharmaceutical sales representative.
- Genetic counselor.
- Biochemist.
- Environment, Water and Agriculture Sector (Laboratory Technician, Researcher).
- Industrial Sector (Food & Dairy Laboratories and Quality Control: Technician, Researcher).
- Wildlife Protection Authority (Researcher).
- Quality Laboratories (Technician).
- National Center for Disease Prevention and Control (NCDC), Technician, Researcher).
- Saudi Food and Drug Authority (SFDA), Technician, Researcher).
- Ministry of Interior (General Department of Criminal Evidence).
- The Saudi Grains Organization.
- King Abdul-Aziz City Science & Technology (KACST): Laboratories: Technician, Researcher.

6. Major Tracks/Pathways (if any):

Major track/pathway	Credit hours (For each track)	Professional Occupations/Jobs (For each track)
1. General Biology	121	Teacher, Technician, Instructor, Researcher

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

Intermediate exit points/awarded degree	Credit hours
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Not Applicable

B. Mission, Goals, and Learning Outcomes

1. Program Mission:

Providing distinguished academic programs to qualify students, and innovative scientific research to contribute in the requirements of development and community service.

2. Program Goals:

1. Create an environment of quality education in biological sciences.
2. Offer students the opportunity to gain knowledge and skills needed to engage into various Biology professions in industry, scientific inquiry, and foster life-long learning.
3. Build a culture for research and strengthen relationship with the community.

3. Program objectives:

- Providing a high quality program in biological sciences based on high quality educational strategies and develops it to become one of the main sources of biological science education in the Kingdom.
- Provide students with sufficient basic academic, technical and vocational skills through which they can practice biology to meet the requirements of the labor market.
- Provide graduates with modern theories, and develop new skills and techniques in biology and enhance their personal skills that enable them to enter the job market according to current and future needs in the Kingdom.
- Refining the personal skills of the department's students to improve their scientific and cognitive level.
- Graduating qualified students in the field of biology according to the national values and standards.
- Responds to the educational needs required by the community, and contributing to the community service activities through consultation and professional services in the field of biological sciences and environmental risk assessment.
- To conduct research in the field of biology that have a broad economic and social benefits that contributes directly to the Department's role in providing research experience to our students, encourages the intellectual development of faculty and meets the development requirements.

3. Relationship between Program Mission and Goals and the Mission and Goals of the Institution/College.

**Biology Department
Mission**

Science College Mission

Jazan University Mission

Providing distinguished academic programs to qualify students, and innovative scientific research to contribute in the requirements of development and community service.	We provide distinguish academic programs and innovative research to meet the requirements of development and community service.	We teach, do research and innovate to contribute in building a vibrant society.
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Conclusion:

- The biology program's mission is in alignment with the mission of the College of science and Jazan University's mission by to achieve academic excellence and prepare qualified graduates to provide quality that help in national and international development.

The mission of the program also adopted the three directions of the university (students, community service and scientific research), while adhering to societal values and norms

Alignment of the Strategic Goals of Jazan University, College of science and Biology

Program

Direction	Jazan University Strategic Goals	College of science Strategic Goals	Biology Program Strategic Goals
Building world class management	1. Complete campus infrastructure (new campus, upgrades on remote campuses)	To provide a comprehensive and optimal education based on high-quality educational strategies	Create an environment of quality education in biological sciences.
	2. Decentralization of decision making to enhance the responsiveness and speed and to create a culture of accountability (especially in the area of financial management)		
	3. Develop formal job description and informal performance expectations of all university officials and staff	Training students to acquire the knowledge and professional competence necessary to work effectively to meet the requirements of the labor market.	

	<p>4. Build a shared university culture through transparency and communication within the university's hierarchy and across campuses, schools, and academic disciplines</p> <p>5. Continue the adoption of innovative it infrastructure, especially in the area of E-management, digital libraries and E-learning</p>	<p>Providing students with supportive means of learning practices and enhancing their personal skills that enable them to work successfully.</p>	<p>Offer students the opportunity to gain knowledge and skills needed to engage into various Biology professions in industry, scientific inquiry, and foster life-long learning.</p>
Achieving intellectual excellence	<p>6. Demand increased preparation from Incoming Students and Increased Performance from existing Students</p> <p>7. Require the use of world class methods and technologies in teaching and learning</p>	<p>Engaging students in innovative and interdisciplinary research.</p>	
	<p>8. Establish a center for teaching and learning focused on student retention and success, as well as faculty professional development</p> <p>9. Foster a culture of independent thinking, innovation and entrepreneurship among students and faculty</p>	<p>Provision of trained graduates equipped with values for serving the Kingdom.</p>	<p>Build a culture for research and strengthen relationship with the community.</p>
	<p>10. Encourage International Studies, International Partnerships, and International Research Agendas</p> <p>11. Develop a comprehensive system to recruit, evaluate, and reward faculty</p>	<p>Encouraging scientific research that contributes to meeting the requirements of development with wide economic and social benefits.</p>	

Delivering social and economic Impact	12. Invest in an analytical capability to understand and assess the region's needs on a continuing basis	Creating strong links with the community and providing effective community services.	
	13. Establish academic units (departments or technical schools) in key fields of importance to the region and the Kingdom such as agriculture, fisheries, tourism management, etc.		
	14. Engage industry and potential employers in curriculum development		
	15. Invest heavily in academic and research units of regional or national importance,.		

Conclusion:

- The strategic goals of college of science are aligned with many of the strategic goals of Jazan University as the faculty adopted all strategic direction of the University.
- Also the strategic goals of Biology Program are aligned with most of the University's direction.

Biology Program Mission	Biology Program Objectives
Providing distinguished academic programs to qualify students, and innovative scientific research to contribute in the requirements of development and community service.	Providing a high quality program in biological sciences based on high quality educational strategies and develops it to become one of the main sources of biological science education in the Kingdom.
	Provide students with sufficient basic academic, technical and vocational skills through which they can practice biology to meet the requirements of the labor market.

	Provide graduates with modern theories, and develop new skills and techniques in biology and enhance their personal skills that enable them to enter the job market according to current and future needs in the Kingdom.
	Refining personal skills of students to improve their scientific and cognitive level.
	Graduating qualified students in the field of biology according to the national values and standards.
	Responds to the educational needs required by the community, and contributing to the community service activities through consultation and professional services in the field of biological sciences and environmental risk assessment.
	To conduct research in the field of biology that have a broad economic and social benefits that contributes directly to the Department's role in providing research experience to our students, encourages the intellectual development of faculty and meets the development requirements.

Conclusion:

The above mentioned table showed that all Biology Program Goals is derived from the Biology Program Mission.

4. Graduate Attributes:

Graduate of Biology Program with leadership qualities that support their professional career path will have a positive impact on the future of professional graduates in all biological fields in Saudi Arabia.

According the attributes & Characteristics of graduates at Jazan University, Biology

department put suitable learning outcomes to fit these attributes which are;

1. Broad **knowledge** of Biology.
2. **Innovative solutions** based on environment, culture and society.
3. Firm commitment to professional practice and **ethical values**.
4. Lifelong learning **values** and pursues continuous learning.
5. Applying Professional development, such as the ability to work collectively and awareness relating to the importance of building **professional relationships**.
6. Displaying the confidence and the potential for **leadership**.
7. Being respectful, **team oriented** and approachable in social and professional contexts.

Attributes, Jazan University Graduate Attributes and Biology Program Graduate

Attributes

Biology Department Graduate Attributes	Jazan University Graduate Attributes
Broad knowledge of Biology	Passion of knowledge , continuous research and practical application of knowledge
Innovative solutions based on environment, culture and society	The ability to solve problems and make decisions
Firm commitment to professional practice and ethical values .	Commitment to values, ethics and responsibility
Lifelong learning values and pursue continuous learning	Digital communication
Applying Professional development, such as the ability to work collectively and awareness relating to the importance of building professional relationships .	Effective communication and negotiation
Displaying the confidence and the potential for leadership .	Leadership and team work
Being respectful, team oriented and approachable in social and professional contexts	Professional scientific ethics

Conclusion:

Biology Program Graduate Attributes Aligned with Jazan University Graduate Attributes.

Alignment between Biology Program Graduate Attributes and Biology Program Goals

Biology Program Goals	Biology Program Graduate Attributes
Create an environment of quality education in biological sciences.	Broad knowledge of Biology

Offer students the opportunity to gain knowledge and skills needed to engage into various Biology professions in industry, scientific inquiry, and foster life-long learning.	Innovative solutions based on environment, culture and society
Build a culture for research and strengthen relationship with the community.	Firm commitment to professional practice and ethical values .
	Lifelong learning values and pursue continuous learning
	Applying Professional development, such as the ability to work collectively and awareness relating to the importance of building professional relationships .
	Displaying the confidence and the potential for leadership .
	Being respectful, team oriented and approachable in social and professional contexts

5. Program learning Outcomes*

Knowledge and Understanding: At the end of the program the graduates will be able to:

K1	Display a broad knowledge and understanding of the principal, theories and concepts of Biology, In addition to the basic principles of chemistry, physics, and mathematics that form the foundation on which all of biology rests.
K2	Demonstrate significant knowledge and understanding of the processes, techniques, mechanisms, functions, practices, conventions and terminology of Biology.
K3	Express in depth knowledge and understanding of research methodology and inquiry techniques in the field of Biology

Skills: At the end of the program the graduates will be able to:

S1	Apply broad integrated underlying theories, principles, and concepts in various contexts in Biology.
S2	Practice methods of inquiry, investigation and research for complex issues and problems in Biology
S3	Carry out various complex practical tasks and procedures related to Biology.
S4	Communicate in main forms and use of specialized digital technology and ICT tools to demonstrate an understanding of theoretical knowledge and transfer specialized knowledge, skills and complex ideas to a variety of audiences.

Values: At the end of the program the graduates will be able to:

V1	Show confidence and potential for leadership, long life learning and
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	entrepreneurship.
V2	Consider risk assessment, and lab safety as a personal responsibility toward individuals and society.
V3	Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility, and play a major role in joint work planning and evaluation

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

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Contact Hours	Percentage
Institution Requirements	Required	3	6	9	5%
	Elective	-	-		-
College Requirements	Required	7	24	69	20%
	Elective	-	-		-
Program Requirements	Required	38	89	152	73.5%
	Elective	-	-		-
Capstone Course/Project	Required	1	2	4	1.5%
Field Experience/ Internship	NA	-	-		-
Others	NA	-	-		-
Total		49	121	234	100%

* Add a table for each track (if any)

2. Program Study Plan

Program Requirements		
Requirments	Creidt Hours	Contact Hours
University Requirments	6	9
College Requirments	24	69
Department Requirments	91	156
Total	121	234

Level 1									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	BIOL 101	General Biology	3	0	1	4.5	0	2	=====
2	ENGL 104	English Language	3	0	0	15	0	0	=====
3	ISLM 101	Islamic Culture (1)	2	0	0	3	0	0	=====
4	ARAB 102	Arabic Editing	2	0	0	3	0	0	=====
Total			10	0	1	25.5	0	2	
			11			27.5			
Level 2									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	CHEM 101	General Chemistry	3	0	1	4.5	0	2	=====
2	MATH 101	General Mathematics	3	0	0	4.5	0	0	=====
3	ENGL 105	English Language (2)	3	0	0	15	0	0	ENGL 104
Total			9	0	1	24	0	2	
			10			26			
Level 3									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	PHYS 101	General Physics	3	0	1	4.5	0	2	=====
2	ENGL 106	Scientific English	3	0	0	15	0	0	ENGL 105
3	BIOL 211	Cell Biology	2	0	1	3	0	2	BIOL 101
Total			8	0	2	22.5	0	4	
			10			26.5			
Level 4									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	ISLM 102	Islamic Culture (2)	2	0	0	3	0	0	=====
2	CHEM 203	Organic Chemistry	2	0	1	3	0	2	CHEM 101
3	MICR 231	Bacteriology	1	0	1	1.5	0	2	BIOL 101

4	BOTN 241	Plant Morphology & Anatomy	2	0	1	3	0	2	BIOL 101
Total			7	0	3	10.5	0	6	
			10			16.5			
Level 5									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	MATH 205	Biostatistics	2	0	0	3	0	0	MATH 101
2	ZOOL 251	Invertebrates	2	0	1	3	0	2	BIOL 101
3	ZOOL 254	Chordates	2	0	1	3	0	2	BIOL 101
4	MICR 232	Virology	1	0	1	1.5	0	2	BIOL 101
Total			7	0	3	10.5	0	6	
			10			16.5			
Level 6									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	BIOL 222	General Genetics	1	0	1	1.5	0	2	BIOL 211
2	MICR 333	Mycology & Plant Pathology	2	0	1	3	0	2	BOTN 241
3	ZOOL 252	Histology	1	0	1	1.5	0	2	BIOL 211
4	MICR 331	Phycology	1	0	1	1.5	0	2	BIOL 101
5	BOTN 242	Archegoniates	1	0	1	1.5	0	2	BOTN 241
Total			6	0	5	9	0	10	
			11			19			
Level 7									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	CHEM 204	Biochemistry	2	0	1	3	0	2	CHEM 203
2	BIOL 301	Fundamentals of Ecology	1	0	1	1.5	0	2	BIOL 101
3	BIOL 311	Specimen Techniques	1	0	1	1.5	0	2	ZOOL 252
4	ZOOL 351	Animal Physiology	2	0	1	3	0	2	ZOOL 252
Total			6	0	4	9	0	8	

			10			17			
Level 8									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	ZOOL 353	Marine Biology	2	0	1	3	0	2	ZOOL 254 ZOOL251
2	BOTN 341	Plant Water and Soil relationships	1	0	1	1.5	0	2	BOTN 241
3	MICR 334	Microbial Physiology	2	0	1	3	0	2	MICR 231 MICR 333
4	BIOL 411	Molecular Biology	1	0	1	1.5	0	2	BIOL 222
Total			6	0	4	9	0	8	
			10			17			
Level 9									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	ZOOL 352	Parasitology	1	0	1	1.5	0	2	ZOOL 251
2	ZOOL 354	Immunology	1	0	1	1.5	0	2	ZOOL 351 MICR 232
3	BOTN 342	Taxonomy of Flowering Plants	1	0	1	1.5	0	2	BOTN 241
4	ZOOL356	General Entomology	2	0	1	3	0	2	ZOOL 251
5	BOTN 344	Plant Hormones	1	0	1	1.5	0	2	BOTN 341
Total			6	0	5	9	0	10	
			11			19			
Level 10									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	MICR 431	Industrial Microbiology	1	0	1	1.5	0	2	MICR 334
2	MICR 433	Medical Microbiology	1	0	1	1.5	0	2	MICR 334
3	BOTN 441	Plant Physiology	2	0	1	3	0	2	341 BOTN
4	BIOL 412	Biotechnology	1	0	1	1.5	0	2	411BIO
Total			5	0	4	7.5	0	8	
			9			15.5			

Level 11									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	BOTN 443	Plant Ecology	1	0	1	1.5	0	2	BIOL 301
2	MICR 432	Environmental Microbiology	1	0	1	1.5	0	2	MICR 334 BIOL 301
3	ZOOL 451	Endocrinology	1	0	1	1.5	0	2	ZOOL 351
4	BIOL 402	Biodiversity in the Kingdom	1	0	1	1.5	0	2	BIOL 301
5	BIOL 491	Graduation Project	1	0	1	2	0	2	Dept. Approval
Total			5	0	5	8	0	10	
			10			18			
Level 12									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	ZOOL 452	Embryology	1	0	1	1.5	0	2	ZOOL 351
2	ZOOL 454	Animal Ecology & Behavior	1	0	1	1.5	0	2	BIOL 301
3	ZOOL 456	Medical & Economic Entomology	2	0	1	3	0	2	ZOOL 356
4	BOTN 442	Economic Botany	1	0	1	1.5	0	2	BOTN 344
Total			5	0	4	7.5	0	8	
			9			15.5			

- * Include additional levels if needed
- ** Add a table for each track (if any)

3. Course Specifications

Insert hyperlink for all course specifications using NCAAA template

<http://colleges.jazanu.edu.sa/sci/BiologDept/Pages/Syllabus.aspx>

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	Course Title	Program Learning Outcomes									
		Knowledge and understanding			Skills				Values		
		K1	K2	K3	S1	S2	S3	S4	V1	V1	V3
101Islm	Islamic Culture 1										
105Engl	English Language										
101Bio	General Biology	I	I	I	I						
101Math	General Mathematics										
101Com	Introd. Computer Sci.										
102Islm	Islamic Culture 2										
101Arab	Linguistic Skills										
101Phys	General Physics										
101Chem	General Chemistry										
106Engl	Scientific English										
102Arab	Arabic Editing										
211Bio	Cell Biology	I	A		I	P			P		
231Mic	Bacteriology	A	A		A		P			I	
241Bot	Pla. Morph.& Anato.	I	I	I	I			I			I
251Zoo	Invertebrates	A	A		P		P			I	
203Chem	Organic Chemistry										
205Math	Biostatistics										
103Islm	Islamic Culture 3										
222Bio	General Genetics	A	A	I	A		A		P		
232Mic	Virology	A	P		P	P	P		I		
242Bot	Archegoniatates	A	P	P	P					I	
252Zoo	Histology	A	A	A	P			P	I		
254Zoo	Chordates	A	A	A	P						I
204Chem	Biochemistry										
301Bio	Fundam. of Ecology	I	I	P	I	I	P		I		
311Bio	Specimen Technique	P	P	I	P	P	P			I	
331Mic	Phycology	I	P		A		I			P	
333Mic	Mycol. & Pl. Patholo.	P	P	P	A	P			I	I	
341Bot	Pl. Water Relationsh.	P	I	I	I		P		I		
351Zoo	Animal Physiology		A	A	P		P	P	I		
353Zoo	Marine Biology	A	P		P		A		P		I
334Mic	Microbial Physiology	A	I	A	I	I	P			I	
342Bot	Taxo. Flowering Pl.	P		P	A	P		P			I
344Bot	Plant Hormones	P	P		A	P	A			P	
352Zoo	Parasitology	A	P	A	A	A	P		P		P
354Zoo	Immunol & Serology	I	P	A	A	A	P		P	P	
356Zoo	General Entomology	A	A		A	P	P		P	P	
411Bio	Molecular Biology	A	A	A	A					A	
431Mic	Industrial Microbiol.	A	I	P	A	P	P			P	
433Mic	Medical Microbiol.	P	A		A		A		I		
441Bot	Plant Physiology	P	A			P	P	P	P		
443Bot	Plant Ecology	P	P	P	A		P	I	I		

Course Code	Course Title	Program Learning Outcomes									
		Knowledge and understanding			Skills				Values		
		K1	K2	K3	S1	S2	S3	S4	V1	V1	V3
451Zoo	Endocrinology	A	A	I	A		A		P		
491Bio	Graduation Project	I	I	A	P	P	A	A	A	A	A
104Islm	Islamic Culture 4										
402Bio	Biodiversity	A		A	A	P		P			P
412Bio	Biotechnology	A	A	A	A		A			A	
432Mic	Enviro. Microbiology	P	P	P	A	P		P		P	P
422Bot	Economic Botany	P	I	P	P		A	P	P		
452ZOO	Embryology	A	A	A	A	A	A	A			I
454Zoo	Ani. Ecol & Behavior	P	A	P	P	A	A			A	
456Zoo	Med. Econo. Entom.	P	P	A		P	P	P	P	P	

* Add a table for each track (if any)

5. Teaching and learning strategies to achieve program learning outcomes

Describe policies, teaching and learning strategies, learning experience, and learning activities, including curricular and extra-curricular activities, to achieve the program learning outcomes.

Program learning outcomes*		Teaching strategies
1. Knowledge and Understanding		
K1	Display a broad knowledge and understanding of the principal, theories and concepts of Biology, in addition to the basic principles of chemistry, physics, and mathematics that form the foundation on which all of biology rests.	Interactive lectures. Classroom discussions Tutorials. Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos.
K2	Demonstrate significant knowledge and understanding of the processes, techniques, mechanisms, functions, practices, conventions and terminology of Biology.	Interactive lectures. Classroom discussions Tutorials. Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos.
K3	Express in-depth knowledge and understanding of research methodology and inquiry techniques in the field of Biology	Interactive lectures. Classroom discussions Tutorials. Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos.
2.Skills		

S1	Apply broad integrated underlying theories, principles, and concepts in various contexts in Biology.	Interactive lectures. Classroom discussions Tutorials. Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos. Field trips.
S2	Practice methods of inquiry, investigation and research for complex issues and problems in Biology	Interactive lectures. Classroom discussions Tutorials. Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos. Field trips.
S3	Carry out various complex practical tasks and procedures related to Biology.	Interactive lectures. Classroom discussions Tutorials. Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos. Field trips.
S4	Communicate in main forms and use of specialized digital technology and ICT tools to demonstrate an understanding of theoretical knowledge and transfer specialized knowledge, skills and complex ideas to a variety of audiences.	Interactive lectures. Classroom discussions Tutorials. Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos. Field trips.
3.Values, Autonomy and Responsibility		
V1	Show confidence and potential for leadership, long life learning and entrepreneurship.	Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos. Field trips. Micro-Project Presentation (individual and teamwork)
V2	Consider risk assessment, and lab safety as a personal responsibility toward individuals and society.	Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos. Field trips. Micro-Project Presentation (individual and teamwork)

V3	Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility, and play a major role in joint work planning and evaluation	Individual assignments. Group discussion. Lab-work. Self-learning activities. E-Videos. Field trips. Micro-Project Presentation (individual and teamwork)
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6. Assessment Methods for program learning outcomes.

Describe assessment methods (Direct and Indirect) that can be used to measure achievement of program learning outcomes in every domain of learning.

Program learning outcomes*		Assessment Methods
1. Knowledge and Understanding		
K1	Display a broad knowledge and understanding of the principal, theories and concepts of Biology, in addition to the basic principles of chemistry, physics, and mathematics that form the foundation on which all of biology rests.	MCQs. Short answer questions. Written exam. True/False. Quizzes. (Theory and Practical) Midterm (Theory and Practical) Final (Theory and Practical)
K2	Demonstrate significant knowledge and understanding of the processes, techniques, mechanisms, functions, practices, conventions and terminology of Biology.	MCQs. Short answer questions. Written exam. True/False. Quizzes. (Theory and Practical). Midterm (Theory and Practical). Final (Theory and Practical).
K3	Express in-depth knowledge and understanding of research methodology and inquiry techniques in the field of Biology	MCQs. Short answer questions. Written exam. True/False. Quizzes. (Theory and Practical). Midterm (Theory and Practical). Final (Theory and Practical).
2. Skills		
S1	Apply broad integrated underlying theories, principles, and concepts in various contexts in Biology.	MCQs. Short answer questions. Written exam. True/False. Quizzes. (Theory and Practical). Midterm (Theory and Practical). Final (Theory and Practical).
S2	Practice methods of inquiry, investigation and research for complex issues and problems in Biology	MCQs. Short answer questions. Written exam. True/False. Quizzes. (Theory and Practical). Midterm (Theory and Practical). Final (Theory and Practical). Research project. Individual and group project report.

S3	Carry out various complex practical tasks and procedures related to Biology.	<p>MCQs. Short answer questions. Written exam. True/False. Quizzes. (Theory and Practical). Midterm (Theory and Practical). Final (Theory and Practical). Research project. Individual and group project report. Assignments (Theory and Practical) Oral exam</p>
S4	Communicate in main forms and use of specialized digital technology and ICT tools to demonstrate an understanding of theoretical knowledge and transfer specialized knowledge, skills and complex ideas to a variety of audiences.	<p>Research project. Individual and group project report. Assignments (Theory and Practical) Oral exam</p>
3.Values, Autonomy and Responsibility		
V1	Show confidence and potential for leadership, long life learning and entrepreneurship.	<p>Group Assignment. Observation. Group Discussion. Oral exam. Laboratory work.</p>
V2	Consider risk assessment, and lab safety as a personal responsibility toward individuals and society.	<p>Group Assignment. Observation. Group Discussion. Oral exam. Laboratory exams.</p>
V3	Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility, and play a major role in joint work planning and evaluation	<p>Group Assignment. Observation. Group Discussion. Oral exam. Laboratory work.</p>

D. Student Admission and Support:

1. Student Admission Requirements

All requirements are aligned with JU admission requirements

- 1- The student applies to biology program must have the certificate of the high secondary school (scientific section).

- 2- School Recommendations of highly regarded ethics and accountability.
- 3- Be a student of a Saudi national or Saudi Arabia mother.
- 4- Must not have been on the receiving a high school or its equivalent for more than five years.
- 5- Be at least average in high school about 70%.
- 6- Should not be disconnected from Jazan University for academic reasons, disciplinary or disconnected from another university for disciplinary reasons.

The following figure show that our biology program is one of the program offered by the college of science and Jazan university

Source : Deanship of Admission and Registration, Jazan University.



The Admission of New Students (Article No (2):

The university council according to the college councils' proposal, as well as, proposal from other related bodies determines the number of students to be admitted next year.

Administrative Rules of Jazan University (Article No (3):

The Deanship of Admission and Registration according to the college councils' proposal submits a statement with the number of students to be admitted to the next semester or academic year in order to submit it to the university council.

Conditions necessary for admission in the university:

1. The student must have a certificate of general secondary school or its equivalent (from inside kingdom or outside it).
2. The certificate or its equivalent must not exceed 5 years since the graduation of the holder from secondary school. In this respect, the university council may have the right to make

exception if there are other convincing reasons.

3. The student must have a good conduct.

4. The student must pass in all tests or private interview deemed necessary by the university council.

5. The student must be medically fit.

6. The student must get a letter of approval from his/her employer if he/she works in a public or private sector.

7. The student must satisfy any other condition identified by the university council.

Administrative Rules of Jazan University:

1. If a student has been dismissed from Jazan University or from any other university for disciplinary reasons, the admission is considered null and void unless otherwise proved later.

2. The student must not be registered in other university beside the University of Jazan, aiming to obtain a certain degree or he/she has already obtained it. Then the deanship of admission and registration has the right to cancel his/her admission if other thing is proved later. In this case, the University Council has the right to make exception if it deems necessary.

3. The university president has the right to make exception for the student if there are convincing reasons.

Article No 4:

From among all candidates wishing for admission, priority is to those who satisfy all conditions according to the marks they obtain in general secondary school certificate, and the interview as well as admission tests if any.

Administrative Rules of Jazan University:

The Deanship of Admission and registration upon recommendations from college councils shall prepare a presentation of the mechanisms of giving priorities to the students applied for admission to be submitted to the university council or to the competent authority.

- <http://deanships.jazanu.edu.sa/sites/en/adm/Pages/AdmissionofFreshmanyearstudents.aspx>
- <http://deanships.jazanu.edu.sa/adm/PublishingImages/flge/%D8%AF%D9%84%D9%8A%D9%84%20%D8%A7%D9%84%D8%B7%D8%A7%D9%84%D8%A8%201.pdf>
- <http://deanships.jazanu.edu.sa/adm/Documents/%D8%AF%D9%84%D9%8A%D9%84%20%D8%A7%D9%84%D8%B7%D8%A7%D9%84%D8%A8%20%D9%84%D9%84%D8%AE%D8%AF%D9%85%D8%A7%D8%AA%20%D8%A7%D9%84%D8%A5%D9%84%D9%83%D8%AA%D8%B1%D9%88%D9%86%D9%8A%D8%A9.pdf>

2. Guidance and Orientation Programs for New Students

Student Orientation Programs:

Student Orientation Programs for new students are Introduction to the university life;

becoming familiar with the new environment, Starting college can cause much anxiety in the new college student. New student orientation programs are designed to guide students prior to the beginning of classes, students are given an overview of the complete realm of university life, from academics to social activities, through a period of days referred to as orientation. Typically, academic advising team the orientation programs within the college.

The Orientation program is designed to help students get acquainted with the following:

- Vision, mission and objectives of the department, college and university.
- University and college regulations and code of conduct.
- Tips on leading a successful college life in line with their potential career goals.
- Department and college facilities and places.
- Plan of the study review course.
- Methods of evaluation.
- Wellness, self-care.
- Faculty expectations.
- Certification and licensure information.

The main objectives in orientation programs are:

1) Introducing students to college life:

Introducing students to college life requires presenting as full a view as possible of all the university has to offer. Therefore, academics as well as extracurricular activities should be presented. During orientation, students should be made aware of opportunities to be socially integrated into the college culture. Orientation programs begin before classes start; therefore students usually will need to register for classes during orientation. Because new students need some direction and guidance in enrolling for classes, faculty members should have an opportunity to provide academic advising at orientation.

2) Acclimating students to their new surroundings:

After moving into a new neighborhood, one would ideally like a few days to learn one's way around the new neighborhood. Likewise, orientation should allow students to get their bearings in their new home.

3) Providing an opportunity for the college to meet the newest members of the community.

The college community should not only be involved in the preparation and implementation of orientation programs but also have an opportunity to meet the new students; orientation requires the cooperation and the resources including faculty, facilities management, and student activities groups.

College Orientation: Dean Meeting with newcomers.

Department Orientation: Head of Department Meeting with newcomers and staff.

Student Counseling Orientation: Student Counseling Committee Coordinator Meeting students

3. Student Counseling Services

(academic, career, psychological and social)

Academic Counseling:

The academic advising unit offers courses designed to develop skills to help students succeed in college and make effective career and life choices. Special topics courses related to various areas of an academic career and personal development are also offered.

Each student in the biology program has an academic advisor whose job is to provide students with Consultation and academic support mainly during registration time but also any time during the semester.

Students may consult their advisor, as well as the Department Chair and the Dean of the College, for any issues or concerns concerning their academic life. Given the number of biology students, the students are divided among the college for advising. The process is as follow;

- Student Academic Counseling Committee is in charge of student counseling.
- Each Faculty is assigned a group of students for counseling.
- Faculty will be available for student counseling at specific office hours during on daily basis.
- Faculty should make a file for each student in his counseling group where student contact information, a copy of student timetable, a copy of student academic record is kept and updated every semester.

Career Counseling:

The alumni unit and academic advising provide opportunities for career exploration and evaluation of interests, aptitudes, skills and other characteristics related to vocational and pre-professional planning and job success.

This includes:

- Career Assessments and Interpretations.
- Career Workshops such as writing CV., interviewing assistance, researching occupations, labor market information, and career planning.
- College of science is going to plan to invite the stakeholders from the different authorities and ministries in program advisory committee as speakers in Alumni celebration and workshops.

Social Counseling:

Social programs in Jazan university focus on preparing students for a leadership role in all biological aspects, which can help in the developmental process and community services and problem solving of most ecological and biological difficulties.

Psychological Counseling:

There is no psychologist in college of science, but cases requiring psychological guidance are referred to the Academic Guidance Unit of the Deanship of Student Affairs at Jazan University.

4. Special Support

(low achievers, disabled, gifted and talented)

Talented students:

Talented students are those whose skills are distinctly above average in one or more areas of human performance. He is who performs at or shows the potential for performing at a remarkably high level of accomplishment when compared to others of the same age, experience, or environment.

Gifted learners are those with abilities in one or more academic subjects.

Talented learners are those who have practical skills in areas such as creative and performing in nursing Skills and attributes such as leadership, decision-making and organization may also be taken into account.

Instructional strategies and activities used with gifted students:

1-Design lessons with Bloom's Taxonomy.

For gifted students, construct activities from the two upper levels: creating and evaluating. For example, activities could include conducting an experiment or writing an editorial about a current events topic.

2-Assign independent projects.

When gifted students finish class assignments early, allow them to work on special projects. Assign topics that are of special interest to our students and have them explore the topic in depth.

3-Ask intellectually stimulating questions.

When constructing our lesson plan, we write questions that are open-ended and require more thoughtful responses.

4-Find mentors.

Gifted students need guides just like other students. We Find an adult who can help our student explore a subject of interest more deeply. This mentor can serve as an advisor, counselor and role model to the student.

5-Organize cluster groups.

Research shows gifted students of the same grade benefit from being grouped together. As a way to combine resources, teachers can shift gifted students from different classrooms into one group to learn about a specific topic in more depth. This method works best with teachers who are specially trained to work with gifted students and have minimal distractions from other students in the class.

Low Achievers:

Slow learner is one whose performance is very dismal in the examination. They are on the lower rungs of intelligence scale. Slow learners – are low-achievers.

On the other hand The only problem with them is that they learn concepts and achieve developmental milestones at a pace slower than their peers.

To help slow learners, the teacher will able to:

1- Combine a variety of tasks to the learning even if it is not assigned such as painting a picture.

2-Ask questions of the student while they are working about the assignment

3- Applying "Three Transfer" form of learning in which the student must take information and do three things with it besides reading. For example, read it, explain it to someone else, draw a picture of it, and take notes on it.

4-Reward complete task.

Disabled Students:

Admission is not accepted for Disabled Students in the nursing program but in emergency situations, the nursing college has wheelchairs or mobility devices As well as special corridors for these wheelchairs.

E. Teaching and Administrative Staff

1. Needed Teaching and Administrative Staff

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Professors	Biology	Zoology, Botany and Microbiology		7	1	8
Associate Professors	Biology	Zoology, Botany and Microbiology		8	6	14
Assistant Professors	Biology	Zoology, Botany and Microbiology		19	14	33
Lecturers	Biology	Zoology, Botany and Microbiology		12	17	29
Teaching Assistants	Biology	Zoology, Botany and Microbiology		3	8	11
Technicians and Laboratory Assistants	Biology	Zoology, Botany and Microbiology		2	7	9
Administrative and Supportive Staff	Any	Any		2	5	7
Others (specify)	--	--		--	--	--

2. Professional Development

2.1 Orientation of New Teaching Staff

Describe briefly the process used for orientation of new, visiting and part-time teaching staff

The orientation of New Teaching Staff:

The orientation program for new teaching staff is held every time the college admits new faculty members.

A one-week orientation program is designed and utilized by the college to orientate new faculty.

The program also considers orientating new, invited, part-time faculty to program courses, goals, mission, objectives, practical as well as theoretical experience students are undertaking.

A package that includes all required information for the new faculty member is to be given during the orientation program so that it acts as a reference for his/her aid.

The Orientation program is to familiarize new teaching staff with our learning environment and provide opportunities for professional development, his/her job description as well as

other personnel job description and responsibility, Essential information needed to successfully teach at JU which may include communication systems, the learning environment, teaching strategies, evaluation methods, course coordination, delivering engaging lectures and course design etc.

The process used for orientation of new, visiting and part-time teaching staff follow:

- University orientation day.
- New Faculty/Staff are welcomed at the Department level.
- New Faculty/Staff undertake an Orientation Week (Lectures/Workshops) organized by the Vice Dean for development and quality.

The orientation program of visiting and part-time teaching staff:

- Provide an example of teaching plans and forms related to the student assessment, evaluation, and program objectives
- Tools and format for course evaluation.

2.2 Professional Development for Teaching Staff

Describe briefly the plan and arrangements for academic and professional development of teaching staff (e.g., teaching & learning strategies, learning outcomes assessment, professional development, etc.)

Academic staffs are strongly supported in professional development in learning and teaching with the aim of promoting good practice, innovation in learning and teaching as well as curriculum development.

Also, Vice Dean for development and quality at College of science , Deanship of Academic development, Jazan University and NCAAA, Education & Training Evaluation Commission provide all support and adopting initiatives that aim to enhance professional development and efficiency and effectiveness of education quality, eventually leading up to obtaining the program accreditation from NCAAA. (<https://bc.jazanu.edu.sa/bc/>).

They conduct several Training and workshops each year opportunities for professional development in teaching include:

- Teaching and learning.
- Assessment, Moderation Key Performance Indicators and Benchmarking.
- Self-study.
- Teaching portfolio.
- Assess the needs of the faculty members who teach courses of the program from workshops related to effective teaching strategies.
- Organize workshops to develop effective teaching skills strategies in light of the needs at the college level.
- Evaluate the performance efficiency of the teaching in the light of the results of feeding feedback from students and peer evaluation.
- Participating and Attending conferences, seminars, the symposium at Regional Biological Administration.
- Participating in Attending and participating in the scientific faculty day.
- Participating in developing and attending workshops.
- Assess the needs of the faculty members who teach courses of the program from workshops related to effective teaching strategies.
- Encourage scientific communication with local and international universities through visits and research projects.
- Participate in local and international conferences.
- Organize training programs for faculty members in the use of advanced technology in the teaching process and skills of scientific research in collaboration with the

university.

- Participate in local and international conferences.

Organize training programs for faculty members in the use of advanced technology in the teaching process and skills of scientific research in collaboration with the university.

F. 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.)

Biology Department provides an environment of gaining knowledge through a mini department library in addition to the Jazan University main library. The Library contains a concentrated collection of zoology, botany and microbiology books.

College of science has larger, well equipped library serves all faculty departments containing a recent collection of books, indexes, videos and computer software supplementing the holdings of Jazan University main library. The faculty library is equipped with the most recent and updated collection of National and International Textbooks. The devoted staff is available for consultation and biology-related search. The departmental library is located on the second floor in biology department of the main the main college of science building. Also the college of science library is located in the second floor of the main the main college of science building

- Establish a library for a student that includes a lot of specific books related to biological subjects and it was opened daily from 8.30 am to 2.30 pm.
- Equip this library with a net connection to allow for web search.
- Equip it with computers to allow for web search and help student to attend distance learning.
- Student can borrow books from the library for one week and return it to allow it for another student.
- Membership with electronic and web-based resources for staff members and students.
- Digital library for all students is available and contains a lot of books and journals.
- A copy of electronic learning resources for each course is kept in the computer of the Q A committee.
- The list of learning resources is annually updated by teaching Faculty and gets approval by the department council.
- The updated list of learning resources is then raised to Deanship for Library Affairs.

2. Facilities and Equipment

(Library, laboratories, medical facilities, classrooms, etc.).

Library:

In the second floor, the faculty library is there as well as the department library, this library contains books for all students in the faculty. Also, the central library of the university student may use besides the digital library of Saudi Arabia all students use their ID to enter its site

<http://deanships.jazanu.edu.sa/layouts/Authenticate.aspx?Source=/lib/Pages/sdl.aspx>

Teaching laboratories:

Biology Department provides Labs with all necessary equipment, tools, safety aids for undergraduate study.

Biology department Laboratories:

Botany lab.(1) (G 601) Science College Capacity: 30 Student	
Instruments and equipment's	Spectrophotometer, Growth chamber, Oven, pH-meter, Muffle, Water bath, Heater, Microscopes, Balance, Magnetic stirrer.
Practical courses	General Biology, Plant water relationship, Plant physiology, Plant Hormones, Economic Botany, Biodiversity.
Botany lab.(1) (G 611) Science College Capacity: 30 Student	
Instruments and equipment's	Spectrophotometer, Growth chamber, Oven, pH-meter, Water bath, Heater, Microscopes, Balance, Magnetic stirrer.
Practical courses	General biology, Plant taxonomy, plant hormones, Plant morphology and anatomy, Economic botany, Biodiversity.
Microbiology lab.(1) (G 608) Science College Capacity: 20 Student	
Instruments and equipment's	Colony counters, Oven, pH-meter, shaker Water bath, Heater, Microscopes, Balance, Magnetic stirrer, Autoclave, Centrifuge
Practical courses	Molecular biology, General biology, Microbial physiology, Micro-techniques, Medical biology, Virology, bacteriology
Microbiology lab.(2) (G 604) Science College Capacity: 25 Student	
Instruments and equipment's	Colony counters, Oven, pH-meter, Shaker Water bath, Water bath, Heater, Microscopes with camera, Microscopes, Balance, Magnetic stirrer, Autoclave, Spectrophotometer, Distillatory, Incubator
Practical courses	General biology, Medical biology, Mycology, Plant pathology, Fundamentals of ecology, Medical biology
Biotechnology Lab. Science College Capacity: 20 Student	
Instruments and equipment's	Colony counters, Oven, pH-meter, Shaker Water bath, Water bath, Heater, Microscopes with camera, Microscopes, Balance, Magnetic stirrer, Autoclave, Incubator

Practical courses	Molecular biology, Industrial microbiology, Medical microbiology, Micro-technique
Zoology Lab 1. (G 705) Science College Capacity: 25 Student	
Instruments and equipment's	Microtome, Oven, pH-meter, Spectrophotometer, Water bath, Heater, Microscopes, Balances
Practical courses	Animal physiology, invertebrates, Parasitology, Economic and medical entomology, Miro-technique
Zoology Lab 2. (G 707) Science College Capacity: 25 Student	
Instruments and equipment's	Oven, pH-meter, Spectrophotometer, Water bath, Heater, Microscopes, Balances
Practical courses	Animal physiology, invertebrates, Parasitology, Economic and medical entomology.
Genetics Lab. (G 706) Science College Capacity: 20 Student	
Instruments and equipment's	Slides staining device, Deep freezer, oven, Water bath, Heater, Microscopes, Balances
Practical courses	Animal physiology, invertebrates, cytology, Genetics.
Herbarium (G 708) Science College Capacity: 10 Student	
Instruments and equipment's	Oven, Water bath, Heater, Microscope
Practical courses	Plant taxonomy, Biodiversity
PY Lab 1. (G 708) Faculty of Arts Capacity: 30 Student	
Instruments and equipment's	Microscope
Practical courses	General biology, Medical biology
PY Lab 2. (G 707) Faculty of Arts Capacity: 30 Student	
Instruments and equipment's	Microscope
Practical courses	General biology, Medical biology

Herbarium:

Jazan University Herbarium was established at Biology Department in 1435H. It was awarded Prince Mohammad Bin Nasser Excellence and Innovation Award for Environmental Protection in 1437H. The Herbarium also achieved international recognition of International Herbarium Union (USA) and gained Herbarium Code of (JAZUH) in 1438H. The Herbarium is the only one of its kind in the Southern Region and one of five internationally recognized herbaria in the Kingdom. It contains accessions of more than 5000 specimens representing flora of Jazan Region and the Kingdom. It also possesses the most comprehensive collection of succulent plant species in Saudi Arabia. Research carried out by herbarium team resulted in several scholarly articles describing flora of Jazan and Wadi Lagab. Research endeavours also resulted in discovery new plant species as additions to Saudi Flora and as species new to science.

<http://sweetgum.nybg.org/science/ih/herbarium-details/?irm=244821>



Medical facilities:

Inside each Lab and other places, first aid boxes are available for emergency. In college provide health clinic.

Classroom Supplies:

Each classroom is fitted with a white board, an overhead projector, writing pens and dusters. Also, other classroom supplies are available.

Textbooks and Course Materials:

A scheduled course has a designated textbook, which has been approved by the department council. Therefore the students may freely adopt other references to supplement teaching material, which may include prepared lecture notes. There are several study open places on all floors, computer rooms, Sports activities Room, Cafeteria, and theatre.

3. Arrangements to Maintain a Healthy and Safe Environment (According to the nature of the program)

College of science and all of its departments is committed to providing a safe and healthy campus environment. Among its highest priorities are the health and safety of all faculty, staff, students, the visiting public, and members of the neighboring community. In order to implement environmental and occupational health and safety programs and to ensure compliance with all relevant governmental laws and regulations.

A variety of health care services to students, faculty, staff and community members. The faculty has a wide range of health insurance plans.

- There is a clinic for students, faculty administration and staff members is located inside the faculty main campus.
- Smoking is prohibited in any University facility and on any University colleges.
- First aids boxes are located in almost all rooms.
- The purpose of the Safety Program is to ensure the proper handling of hazardous equipment and tools, as well as hazardous waste management and disposal. Exposure to hazardous is kept at a minimum by using the appropriate Personal Protective Equipment.
- The Security and Safety Committee oversees lab safety issues and reviews information regarding pertinent regulations and requirements.
- Fire prevention guidelines are listed in all places
- Emergency Exit doors in all parts with sufficient Signboards in all places.
- The Security and Safety instructions are announced at the laboratories and the places where students gather.
- Workplace Health and Safety area in college of science are:
 - ☒ Fire Alarm.
 - ☒ Fire extinguisher.
 - ☒ Infection control Policy.
 - ☒ Safe lifting.
 - ☒ Physical Fitness.
 - ☒ Handling Workplace Hazardous Materials.
 - ☒ Accidents, Injuries and Work Related Incidents.
 - ☒ Hospital Codes Section.

Adopting regulations and guideline of **JU Administration of Security and Public Health**
<https://www.jazanu.edu.sa/sites/en/Administrations/ss-admin/Pages/default.aspx>

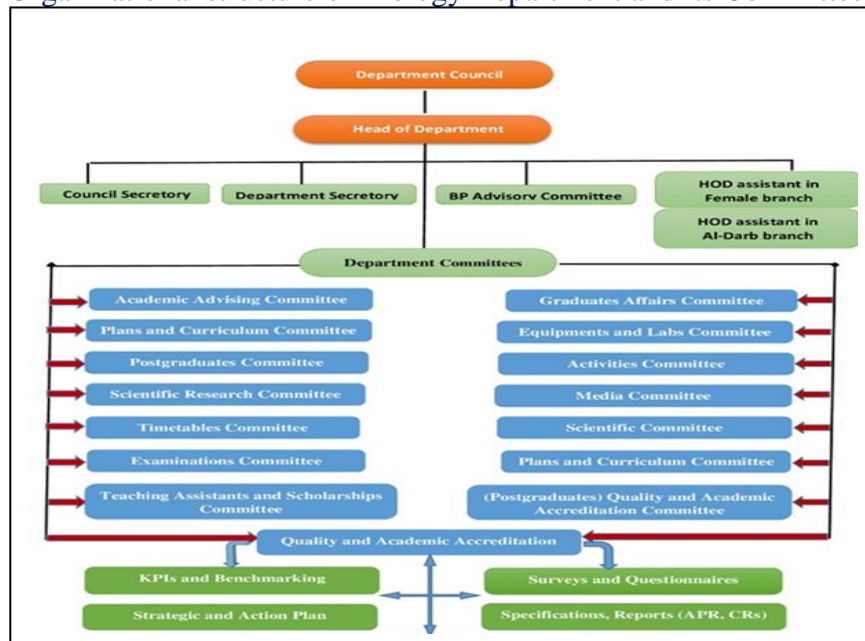
G. Program Management and Regulations

1. Program Management

1.1 Program Structure

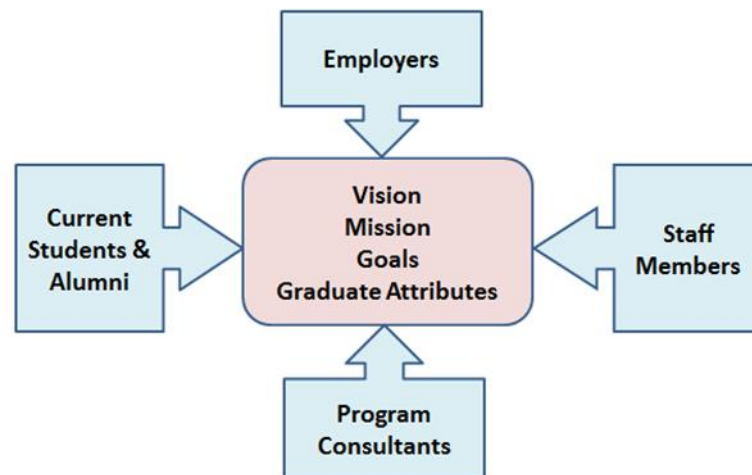
(Including boards, councils, units, committees, etc.)

Organizational structure of Biology Department and its Committees.



1.2 Stakeholders Involvement

Describe the representation and involvement of stakeholders in the program planning and development. (students, professional bodies, scientific societies, alumni, employers, etc.)



Biology department has adopted a framework for the representation and involvement of stakeholders in program planning and development. The primary objective was to create a structure to receive feedback from various stakeholders through the formation. The Committee for Information, Opinion Polls and Data Analysis within the Quality Committees of biology department. The first task was to identify a way to involve all stakeholders - current students, staff, faculty, alumni and representatives of various organizations - academic and community sectors. The second task is to formulate stakeholder recommendations in the program's improvement plan.

Framework (questionnaires, focus group methodologies)

Types of evaluations surveys:

- Course evaluation survey.
- Student experience survey.
- Program evaluation survey.
- Alumni survey.
- Employer survey.
- Faculty/ staff satisfaction survey.

The core purpose of this involvement of stakeholders in program planning and development is:

- Encourage biology program in college of science to identify, foster and promote their own unique identity for the purposes of graduate employability, student and staff morale and student recruitment.
- Equip graduates of the program to progress seamlessly from academia to the scientific research sector.
- Align the mission statements to the best practice and instant feedback from employers will greatly improve the student.
- Through staff and students being aware of the key attributes to be attained by graduates of the biology program, a holistic approach to biology education, in which the long-term aims of the student are emphasized alongside the teaching of individual modules.

2. Program Regulations

Provide a list of related program regulations, including their link to online version: admission, study and exams, recruitment, appeals and complaint regulations, etc.)

The most general Rules in class are:

- Courtesy is expected at all times. This includes turning off mobile phones during class.
- Cheating and Plagiarism are unacceptable under any circumstances. Students should ask what constitutes plagiarism. It is the student's responsibility to familiarize her/him with the plagiarism policy, which can be found in the Undergraduate Catalogue.
- Regular attendance is essential. Punctuality is required of all students. Three late arrivals count as one absence.
- Assignments, papers, and research must be handed in electronically and on time. Due dates. Are final, late submission only for a week will reduce the grade?
- Students are expected to attend all quizzes and exams during the scheduled times. There will be no makeup exams except in special cases.
- Instructor may add other but must inform student at the beginning of the semester.

Others:

1. Definitions:

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/DefinitionsRegistrationandAdmission.aspx>

2. System of Study:

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/StudySystem.aspx>

3. Attendance & Excuse for absence:

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/Attendanceandexcuseforabsence.aspx>

4. Registration Reinstatement:

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/RegistrationReinstatement.aspx>

5. Affiliation:

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/Affiliation.aspx>

6. Examinations:

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/Examinations.aspx>

7. Visiting Student:

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/VisitingStudentAdm.aspx>

8. Appendices:

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/Appendices.aspx/>

9. Admission of Freshman year students;

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/AdmissionofFreshmanyestudents.aspx>

10. System of Levels;

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/SystemofLevels.aspx>

11. Postponement and Dropout from study;

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/Postponementanddropout.aspx>

12. Graduation;

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/GraduationAdm.aspx>

13. transferring from one University to Another;

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/StudentTransferGuidelines.aspx>

14. General Provisions;

<http://deanships.jazanu.edu.sa/sites/en/adm/Pages/GeneralProvisionsAdm.aspx>

15. Implementation rules Jazan University (Arabic);

http://deanships.jazanu.edu.sa/adm/PublishingImages/list_of_studies_and_tests_new.pdf

16. Organization Regulations for Financial Affairs at the University (Arabic);

http://deanships.jazanu.edu.sa/adm/PublishingImages/list_of_rewards_and_benefits_students.pdf

H. Program Quality Assurance

1. Program Quality Assurance System

Provide online link to quality assurance manual

Program Quality Assurance System

1. Planning, Development and Quality Management.
2. Communicating with all academic and administrative entities (senior leaders, heads of department and units, staff, faculty, students, etc.) inside the SRCs (via email, formal letters, etc.) for any matter related to planning, development or quality assurance requirements.
3. Periodic review of strategy and suggestion of modification and required changes as well as providing assistance to departments in preparation of their strategic and operational plans and ensuring alignments with strategy.
4. Institutionalizing continuous improvement mechanisms in all departments through advising on institution-wide strategic priorities and strategic plans for quality improvement, and assisting internal academic and administrative units in the development of quality improvement strategies within their own areas.
5. Review critical incidents, and perform root cause analysis as required in collaboration with the concerned departments and facilitating adaptation of needed remedial actions.
6. Coordinating and leading the preparation of periodic self-studies for consideration within the institution and for use in external reviews.
7. Implementing adequate processes to ensure that the design of students' intended learning outcomes on course and program levels meets the SAQF requirements, and that students' achievements of intended learning outcomes are at least equal to those achieved elsewhere by comparable institutions and programs; and reporting this to the Central Quality Assurance Committee.
8. Disseminating the culture of Quality Assurance among administrative and academic leaders, faculty, staff and students within the institution via training, advice and support as required in addition to other promotional activities (e.g. posters, fairs, lectures, conferences, seminars, etc.).
9. Ensuring establishment, implementation and compliance of policies and procedures with quality standards (e.g. EEC -formerly NCAAA- standards) and benchmarks through

quality audits. This also involves establishing and monitoring self-assessment processes and reporting requirements.

10. Conducting quality evaluations and surveys, providing analysis and improvement implications, and implementing follow-up mechanisms for maximum use of assessment and evaluation processes in order to develop detailed, periodic reports and executive plans for improvement.

11. Developing a procedures manual describing the institution's structure and processes for quality assurance; specifying criteria for selection and formats for indicators, benchmarks, and objectives; preparing standard forms for matters such as student and graduate surveys; and advising on operational procedures for the planning and implementation of quality processes.

12. Developing Criteria for assessing the quality of inputs, processes and outcomes, (with a particular focus on outcomes) and maintaining systematic collections of reports on performance including data on indicators and benchmarks that will be required for analysis and reporting on trends in performance and changes in the environment within which the institution is operating.

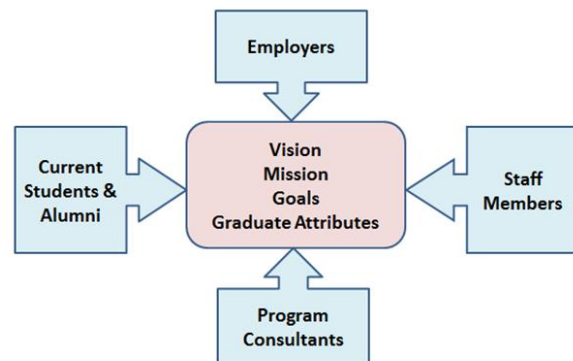
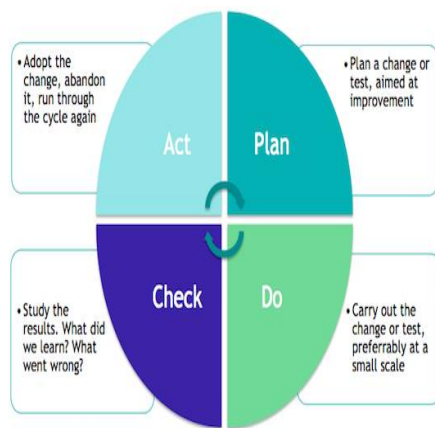
13. Maintaining statistical data of the institutional and programmatic KPIs (including mark distribution, progress rates, completion rates, etc.) in accessible databases, reviewing the KPIs regularly and including them in periodic reports.

14. Making sure that self-evaluation processes of quality of performance depend on different types of relevant evidence, including- but not limited to- feedback from stakeholders (e.g. students, staff, faculty, graduates, employers, government bodies); and reporting this to the Central Quality Assurance Committee.

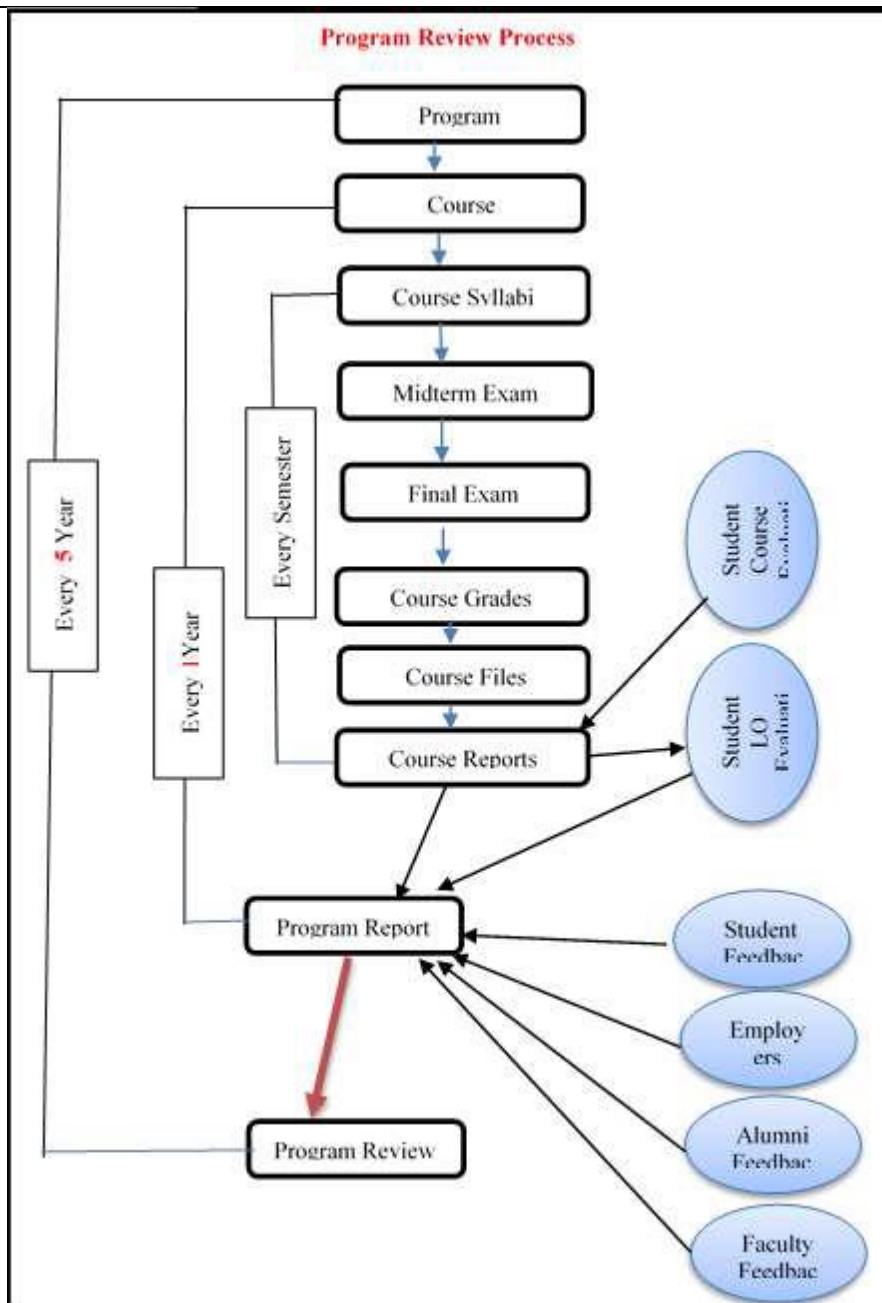
15. Verifying the interpretations of evidence, analysis, conclusions and plans for improvement through consultation with well informed, independent reviewer/ and reporting this to the Central Quality Assurance Committee.

Science QA Unit:

<http://colleges.jazanu.edu.sa/sites/en/sci/Pages/Qualityunit.aspx>



Quality Assurance Manual □



2. Program Quality Monitoring Procedures

The program quality Monitoring procedures are carried out through the following steps:

1- **Planning** in biology department can be explained as the process of setting goals, developing strategies, outlining the implementation arrangements and allocating resources to achieve those goals. It is important to note that planning involves looking at a number of different processes:

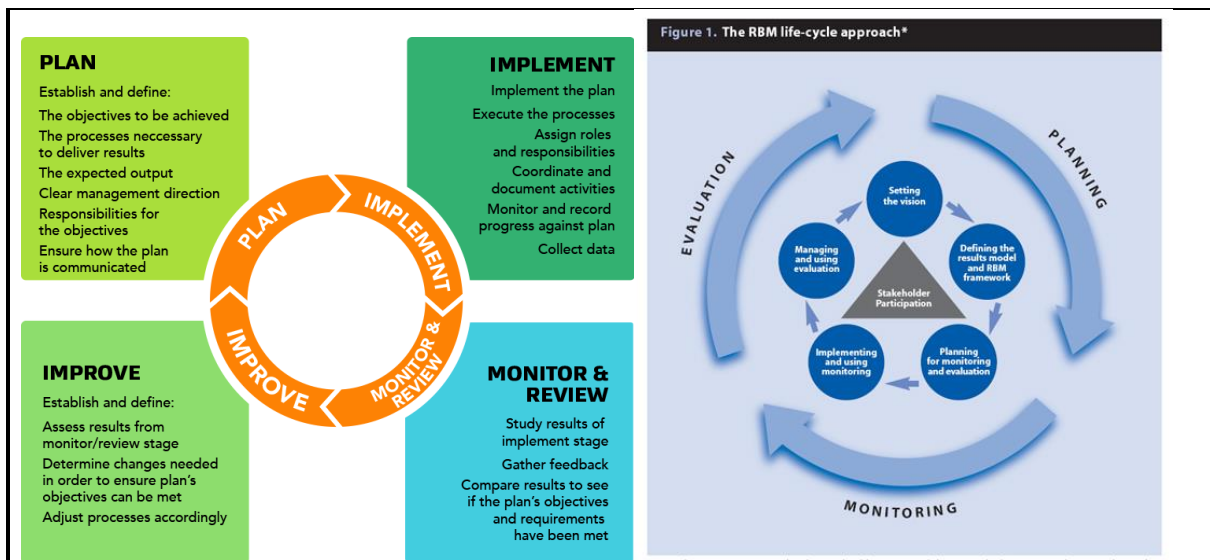
- Identifying the vision, goals or objectives to be achieved.
- Formulating the strategies needed to achieve the vision and goals.
- Determining and allocating the resources (financial and other) required achieving.
- Outlining implementation arrangements, which include the arrangements for monitoring and evaluating progress towards achieving the vision and goals.

2- **Monitoring** in nursing college can be defined as the ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives. Focuses on reviewing progress against achieving goals.

3- **Evaluation** is a rigorous and independent assessment of either completed or ongoing activities to determine the extent to which they are achieving stated objectives and contributing to decision making. The aims of both monitoring and evaluation are very similar: to provide information that can help inform decisions, improve performance and achieve planned results.

Quality Monitoring procedures are carried out by:

- Department and Faculty Council.
- Program Assessment Committee.
- Advisory Committee of Biology Department.
- Self-study committees (6 standards).
- Quality committees.



3. Arrangements to Monitor Quality of Courses Taught by other Departments.

For courses that are taught outside the program and include the first year courses and general courses such as Arabic, Islamic culture and English language courses

- 1- The scientific department concerned with teaching these courses shall prepare the course description and specification according to NCAAA format 2018.
- 2 - The course is taught by the teaching staff of these scientific departments of the university.
- 3 - The teaching staff after the final exam prepares a complete course file of the course and send it to our department via the vice dean of development in college of science.
- 4- The Program Assessment Committee reviews the course reports of all courses.

Components of course file:

- Course Description (Course syllabus).
- Course Specification on 2018 format.
- Course Report. (For each individual group and comprehensive one).
- Course Teaching Plan (Topics decided for each lecture).
- Assessment tools (Quizzes, midterm, practical and final with model answers).
- Direct Assessment of Course Learning Outcomes for Quiz 1& 2, midterm exam, final exam theory and Practical.
- Mark distribution format and undertaking.
- The Practical action plan.
- Student feedback (samples of activities, research papers, project etc.).
- Three Samples of students' scripts (high, medium and low scoring)
- An excel sheet for all marks and graph which was prepared by A. Affairs.

- Analysis of student experience surveys and program surveys and original papers.
- Your students' final scores (edugate).
- Summary of course evaluations (edugate).

All teaching materials, including theoretical and practical presentations.

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

- One QA unit monitoring quality of teaching and learning in main campus (male and female) and branches.
- Some of program accreditation requirements which prepared by the main campus coordinator are send to the branches.
- There is a monthly meeting of the QA committee which include members from both main campus (male & Female) and Al-darb branch.
- A meeting is held between the head of the students affairs unit, the head of the biology department and the coordinators of the program (both main campus (M&F) and Al-darb branch at the beginning of the first semester to distribute of the academic calendar of the department, indicating the dates of the periodic tests, mid-term and the final theoretical and practical tests.
- Weekly contact between the main campus and the branch to discuss the transactions related to the program.
- There is a list containing mobile numbers and e-mail for both main branch (M & F) and the branch in Al-darb for easy communication between the coordinators in the program.
- Unification of lectures that give students in the program in the main campus and the branch.
- Unification of the final exams and its dates in the program for both male and female students in main campus. Next academic year it will be with the branch also (Now there is a committee for making the final exam is similar between the main campus and the branch (similarities will be in measuring the same learning outcomes between main campus and branch).
- Same units that serve students to achieve parity between the two parts of the program, represented by the coordinator of male and female students in main campus, as well as coordinator of Al-darb branch, such as the academic guidance unit - Quality Assurance Unit and Academic Development - Student Affairs Unit - Student Activity Unit – Student Services Unit.
- All regulations and rules that applied to main campus are applied also to Al-darb

branch with the same mechanism to ensure parity among them such as excuses and deprivation..... etc.

- Quality assurance unit in the college of science circulate all the requirements of quality and accreditation for both main campus and branch.
- Course files that are processed by the end of the final exam to complete the quality requirements. Both the students' sections at the head office as well as the program branches in the governorates, including the course reports, as well as the comprehensive report for each course prepared by the coordinators of the courses.

Finally, Biology Program insists on unified regulations, processes, specifications, assessment, and exams Therefore, the Program has unified Program Specifications, Corse(s) Specifications, Learning Resources, Exams, Assessment Methodology, and Verification of Standards by NCAAA Questionnaires.

5. Arrangements to Apply the Institutional Regulations Governing the Educational and Research Partnerships (if any).

There are no educational or research partnerships at the level of the Biology Program and the College of science, but most partnerships are conducted between Biology Program and other health colleges as our department participate in teaching of some other program Jazan University for all health colleges like courses of medical biology and health culture.

JU regulations and guidelines in relation to educational process Link to VAPP Guides:

<https://www.jazanu.edu.sa/sites/en/administrations/vp-academic/Pages/default.aspx>

JU regulations and guidelines in relation to educational process Link to Research Deanship:

<http://deanships.jazanu.edu.sa/res/Pages/Roles.aspx>

6. Assessment Plan for Program Learning Outcomes (PLOs), and Mechanisms of Using its Results in the Development Processes

Program assessment is an essential procedure of academic programs accreditation review. As such, it is a cornerstone of quality, enhanced education. At the biology program, the process of assessing and evaluating courses to enables the measurement of the level of achievement of each learning outcome to identify areas for improvement in students' performance and suggest remedial actions in consultation with faculty concerned. The results of program assessment are used to suggest changes to curricula and courses structure and content.

Assessment of PLOs includes:

1. Direct methods:

Essays/Papers, Lab work, Exam questions, Capstone projects, Performances/Presentations

and Portfolios of student work

2. Indirect methods:

Feedback from Student Assessment of Quality of Teaching and Student Assessment of Quality of Program questionnaires is used to evaluate and improve quality of teaching/teaching,

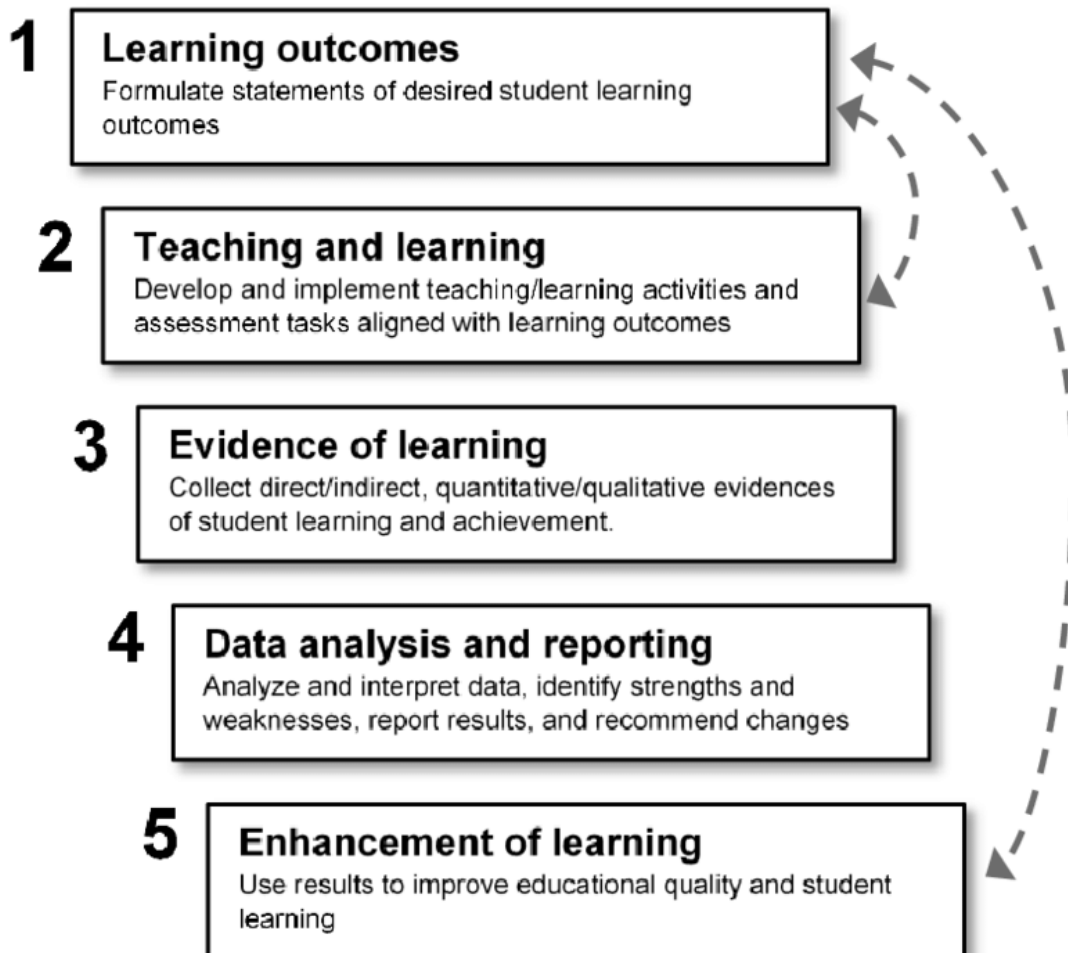
Strategies/learning resources/Faculty performance/student affairs/student services.

Feedback from Faculty Assessment of Quality Program questionnaires is used to evaluate and improve quality of teaching/teaching strategies/learning resources/student affairs/student services.

Surveys from Alumni, Employer and exit interviews.

- Feedback from Student Assessment of Quality of Teaching questionnaires.
- Feedback from Graduate Assessment of Quality of Teaching questionnaires.
- Periodic assessment of student learning achievements.

Mechanism of using PLOs in improvement and development process



7. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Alumni Survey- NCAAA	Alumni	Surveys	End of academic semester
Employer Survey- NCAAA	Stakeholders	Surveys	End of academic semester
Employer Survey – Jazan University	Stakeholders	Surveys	End of academic semester
Faculty Satisfaction Survey	All Faculty Members	Surveys	End of academic year
Program evaluation survey	Students	Surveys	End of academic semester
University experience evaluation Survey	Students	Surveys	End of academic semester
Course evaluation Survey	Students	Surveys	End of academic semester
Students experience Survey in half of the program	Students	Surveys	End of academic semester
Program learning outcomes Survey	Students, Alumni, Faculty Members, Stakeholders	Surveys, interview	End of academic semester, advisory committee meeting
Curriculum Satisfaction Survey	Students, Alumni, Faculty Members, Stakeholders	Surveys, interview	5 Years
Assessment of the quality of services and student activities	Students	Surveys	End of academic semester
Survey students' views on the services of registration and academic advising	Students	Surveys	End of academic semester
Mission and goals of nursing program	Students, Alumni, Faculty Members, Stakeholders, community	Surveys, interview	When conducting the program strategic plan every 4 years and in the self-study of 1-2 years
Biology Program Graduate Attributes	Alumni, Faculty Members, Stakeholders	Surveys	After any changes to the graduates attributes at the Jazan University or Saudi qualifications framework.
Satisfaction of faculty members with the services provided by the university	Faculty Members	Surveys	End of academic semester
Learning Resources Survey	Students	Surveys	End of academic semester
Course learning outcomes surveys	Students	Surveys	End of academic semester

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.)

8. Program KPIs*

The period to achieve the target (2021) year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1	P-01	Percentage of achieved indicators of the program operational plan objectives	%	Questionnaire / QA Committee	Every Year
2	P-02	Students' Evaluation of quality of learning experience in the program	4	Questionnaire / QA Committee	Every Year
3	P-03	Students' evaluation of the quality of the courses	5	Questionnaire / QA Committee	Every Year
4	P-04	Completion rate	4	Students Affairs / Program Report	Every Semester
5	P-05	First-year students retention rate	4.5	Students Affairs / Program Report	Every Year
6	P-06	Students' performance in the professional and/or national examinations	4	Graduates Affairs Committee	Every Year
7	P-07	Graduates' employability and enrolment in postgraduate programs	75%	Graduates Affairs Committee	Every Year
8	P-08	Average number of students in the class	25	Timetables Committee / Students Affairs Committee	Every Semester
9	P-09	Employers' evaluation of the program graduates proficiency	4	Questionnaire / Graduates Affairs Committee	Every Year
10	P-10	Students' satisfaction with the offered services	4	Questionnaire	Every Year
11	P-11	Ratio of students to teaching staff	17:1	Timetables Committee	Every Semester

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
12	P-12	Percentage of teaching staff distribution Gender/ Male: Female	4:3	Timetables Committee	Every Year
13		Branch:	1:3		
14		Rank: Prof.:	4:3		
15		Asso.:	8:5		
16		Assi.:	6:5		
17		Assistant Teaching Staff	1:1		

* including KPIs required by NCAAA

I. Specification Approval Data

Council / Committee	BOARD OF BIOLOGY PROGRAM
Reference No.	12 TH MEETING OF THE BOARD OF BIOLOGY DEPARTMENT 1441-1442
Date	Updated/Revised Feb 8, 2021