هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

Program Specifications
(Postgraduate Degree)

Program Name: M.Sc. Biology (BIO)
Qualification Level: 7 Masters
Department: Biology
College: Science
Institution: Jazan University

Content

A. Program Identification and General Information

1. Program Main Location:

Main Campus (Male)

2. Branches Offering the Program:

Mahalia Girl branch

3. Reasons for Establishing the Program:
(Economic, social, cultural, and technological reasons, and national needs and development, etc.)

Social Reasons

- **M.Sc. Biology Program is offered for local community stakeholders.**
- **Provide society with scientific expertise.**
- **Provide society with general skilled graduates to serve in occupations relevant to biology, ecology, wild life, agriculture, food and dairy industry.**
- **Improve local youth population chances for good job opportunities in biology related establishments.**

Economic Reasons

- **National policy to provide society with trained and skilled Saudi national manpower.**
- **Improve the opportunities for quality higher education of local population.**

4. System of Study

☒ Coursework & Thesis ☐ Coursework

5. Mode of Study

☒ On Campus ☐ Distance Education ☐ Others

6. Educational and Research Partnerships(if any)

- Partnership Arrangement: **None**
- Type of Partnership: **None**
- Duration of Partnership: **None**

7. Total Credit Hours for Completing the Program: (35)

8. Professional Occupations/Jobs:

- Education sector (Ministry of Education)
- Laboratories (Health, Agriculture, Municipal Affairs, Forensic - Ministry of Interior).
- Industrial sector (Food, Dairy, Quality control)

9. Major Tracks/Pathways (if any)**:**

Major Track/Pathway	Credit Hours (For each track)	Professional Occupations/Jobs (For each track)
1. Microbiology Track	**35**	**• Scientific Research Centers • Hospitals and laboratories • Environmental consulting agencies for environmental impact assessment studies and minimizing environmental risks Ministry of Environment, Water and Agriculture**
2. Zoology Track	**35**	**• Scientific Research Centers • Hospitals and laboratories**

		• Environmental consulting agencies for environmental impact assessment studies and minimizing environmental risks Ministry of Environment, Water and Agriculture
3. Botany Track	35	• Scientific Research Centers • Hospitals and laboratories • Environmental consulting agencies for environmental impact assessment studies and minimizing environmental risks Ministry of Environment, Water and Agriculture

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

Intermediate Exit Points/Awarded Degree	Credit Hours
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. 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.
2. Provide students with sufficient basic academic, technical and vocational skills through which they can practice biology to meet the requirements of the labor market.
3. 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.
4. Preparation of students for postgraduate studies and scientific research in the field of biological sciences and related fields.
5. Graduating qualified students in the field of biology according to the national values and standards.
6. 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.
7. 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.

Jazan University's mission is to:

- Achieve academic excellence and prepare graduates to become regional and national leaders in business, industry, health, education, and government.
- Serve the community by addressing its problems and supporting its social and economic development
- Produce internationally recognized research and new knowledge that meet the needs of Jazan Province, the Kingdom, and the world.

The relevance of the program to the university mission:

- The program is committed to the national need for highly skilled post-graduates in all biological aspects.
- Development of student's research skills to help in community development.
- Application of quality principles and Islamic rules in inputs and processes of education.

Alignment between Jazan University Mission, Science College Mission and Master Biology program Mission

Jazan University Mission	Faculty of Science Mission	Master Biology Program Mission
Jazan University's mission is to: Achieve academic excellence and prepare graduates to become regional and national leaders in business, industry, health, education, and government. Serve the community by addressing its problems and supporting its social and economic development Produce internationally recognized research and new knowledge that meet the needs of Jazan Province, the Kingdom, and the world.	Faculty of Science mission is to: Committed to sustain an academic excellence in teaching and learning related to cutting-edge scientific research and knowledge that delivers social and economic impact to meet Jazan University (JU) vision 2020 and Kingdom Vision 2030.	Master Biology Program's mission is to: Aims to develop student's academic and scientific research skills and increase their engagement in society by adopting quality philosophy, in the light of Islamic values and international research partnerships for community service and national development programs.

Conclusion:

- The Master biology program's mission is in alignment with the mission of the Faculty of Science and Jazan University's mission by to achieve academic excellence and prepare qualified post-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, Faculty of Science and Master Biology Program

Direction	Jazan University Strategic Goals	Faculty of Science Strategic Goals	Master Biology Program Strategic Goals
Building world class	1. Complete campus infrastructure (new campus,		Adopt innovative Information

management	upgrades on remote campuses)		Technology (IT) infrastructure.	
	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		Set performance expectations and Key Performance Indicators (KPIs).	
			Develop administrative man power and defined staff job description.	
	4. Build a shared university culture through transparency and communication within the university's hierarchy and across campuses, schools, and academic disciplines		Establish work environment based on transparency and communication.	
	5. Continue the adoption of innovative it infrastructure, especially in the area of E-management, digital libraries and E-learning			
Achieving intellectual excellence	6. Demand increased preparation from Incoming Students and Increased Performance from existing Students		Establish teaching and learning based on quality and excellence.	
	7. Require the use of world class methods and technologies in teaching and learning		Offer relevant education with suitable and quality-enhancing teaching methods.	
	8. Establish a center for teaching and learning focused on student retention and success, as well as		Enhance teaching quality and motivate faculty.	

	faculty professional development		
	9. Foster a culture of independent thinking, innovation and entrepreneurship among students and faculty		Foster a culture of independent critical thinking.
	10. Encourage International Studies, International Partnerships, and International Research Agendas		Foster and utilize international collaborative research partnerships
	11. Develop a comprehensive system to recruit, evaluate, and reward faculty		Develop comprehensive approach to recruit, retain, evaluate, and reward faculty.
Delivering social and economic Impact	12. Invest in an analytical capability to understand and assess the region's needs on a continuing basis		Understand and assess the needs of Jazan Region and employer expectations.
	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.		Establish a national and regional graduate qualification framework.
	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 faculty 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 Master Biology Program are aligned with most of the University's direction.

Master Biology Program Mission	Master Biology Program Goals (Objectives)
Providing distinguished academic programs to qualify students, and innovative scientific research to contribute in the requirements of development and community service.	Provide science and knowledge in the fields of Biology in a modern way to cope with the accelerated cognitive development.
	Development of educational process, scientific research and community service in accordance with quality standards and academic accreditation.
	Strengthen the spirit of diligence among students and urge them to strive for excellence before success.
	Refining personal skills of students to improve their scientific and cognitive level.
	Provide appropriate educational environment for academic study and scientific research.
	Link Biology and its applications with community and surrounding environment.
	Strengthen links in biology with universities in Saudi and international bodies.

Conclusion:

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

4. Graduate Attributes:

- Able to adapt to different assigned roles and tasks in social and professional practices.
- Able to apply problem-solving and critical thinking skills in biological and environmental subjects. Able to utilize information technology effectively to handle key work functions.
- To be self-motivated with the ability to set personal goals and priorities.
- Able to demonstrate efficient interpersonal and communication skills in various life situations.

5.Program Learning Outcomes*

Knowledge and Understanding	
K1	Recall information relevant to the course content
K2	Describe structures, features and processes
K3	Label and explain the items and their related functions on the diagram.
K4	Discuss theories and hypothesis related to course content
Skills	

S1	Explain aspects relevant to course content.
S2	Compare the different structures and features related to the course content.
S3	Evaluate and justify the experimental result to be applied in real situation.
S4	Analyze, evaluate and interpret experimental data.
S5	Appraise and evaluate biological scientific theories.
S6	Plan and organize field trips related to their specific subject.
S7	Design and execute experiments.
Values	
V1	Exhibit leadership and personal responsibilities to accomplish group or individual activities in a manner consistent with relevant professional standards.
V2	Formulate effective information technology, analytical, mathematical and/or statistical techniques for data analysis, critical thinking and problem solving.
V3	Communicate effectively using the proper presentation forms, scientific language and reasoning appropriate for different issues and audiences.

C. Curriculum

1. Study Plan Structure

Program Structure		No. of Courses	Credit Hours	Percentage
Course	Required	**8**	**18**	**51.4 %**
	Elective	**3**	**9**	**25.7 %**
Graduation Project (if any)		**None**	**None**	**None**
Thesis (if any)		**1**	**8**	**22.8 %**
Field Experience (if any)		**None**	**None**	**None**
Others (.....)		**None**	**None**	**None**
Total		**12**	**35**	**100%**

* Add a table for each track (if any)

2. Program Courses:

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	661BIO	Biochemistry and Molecular Biology	Required		2	
	612BIO	Advanced Biostatistics	Required		2	
	613BIO	Instrumental Analysis	Required		2	
	633MIC	Host parasite Relationship	Required		3	
Level 2	614BIO	Experimental Design	Required		2	
	615BIO	Seminar	Required		1	
	647BOT	Soil Science	Required		3	
	654ZOO	Advanced Genetics	Required		3	
Level 3		Elective Course	Elective		3	
		Elective Course	Elective		3	
		Elective Course	Elective		3	
Level 4	699BIO	Thesis	Required		8	

* Include additional levels if needed

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

Elective courses

General compulsory courses for all tracks									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	BIOL611	Biochemistry and Molecular Biology	2	0	0	3	0	0	======
2	BIOL 612	Advanced Biostatistics	2	0	0	3	0	0	======
3	BIOL 613	Instrumental Analysis	2	0	0	3	0	0	======
4	BIOL 614	Experimental Design	1	0	1	1.5	0	2	======
5	MICR 633	Host-Parasite Relationship	3	0	0	4.5	0	0	======
6	ZOOL 654	Advanced Genetics	3	0	0	4.5	0	0	======
7	BIOL 615	Seminar	1	0	0	1.5	0	0	======
8	BOTN 647	Soil Science	3	0	0	4.5	0	0	======
9	MICR 638	Microbial Biotechnology	3	0	0	4.5	0	0	======
10	ZOOL 658	Comparative Animal Physiology	3	0	0	4.5	0	0	======
Elective Courses in Microbiology									
1	MICR 630	Advanced Bacteriology	3	0	0	4.5	0	0	MICR 631
2	MICR 631	Advanced Microbial Physiology	3	0	0	4.5	0	0	MICR 631
3	MICR 632	Algal Physiology	3	0	0	4.5	0	0	MICR 631
4	MICR 634	Advance Plant Pathology	3	0	0	4.5	0	0	MICR 631
5	MICR 635	Microbial Genetics	3	0	0	4.5	0	0	MICR 631
6	MICR 636	Microbial Ecology	3	0	0	4.5	0	0	MICR 631
7	MICR 637	Food Microbiology	3	0	0	4.5	0	0	MICR 631
8	MICR 639	Special Topic in Microbiology	3	0	0	4.5	0	0	MICR 631

Elective Courses in Botany									
No.	Course Number	Course Name	Credit Hours			Contact Hours			Prerequisite
			Lecture	Exercise	Practical	Lecture	Exercise	Practical	
1	BOTN 640	Molecular Plant Physiology	3	0	0	4.5	0	0	BOTN 647
2	BOTN 641	Plant Ecophysiology	3	0	0	4.5	0	0	BOTN 647
3	BOTN 642	Plant Population Ecology	3	0	0	4.5	0	0	BOTN 647
4	BOTN 643	Advanced Plant Taxonomy	3	0	0	4.5	0	0	BOTN 647
5	BOTN 644	Palynology	3	0	0	4.5	0	0	BOTN 647
6	BOTN 645	Plant Geography	3	0	0	4.5	0	0	BOTN 647

7	BOTN 646	Saudi Flora	3	0	0	4.5	0	0	BOTN 647
8	BOTN 648	Basics of plant analysis	3	0	0	4.5	0	0	BOTN 647
9	BOTN 649	Special Topics in Botany	3	0	0	4.5	0	0	BOTN 647
Elective Courses in Zoology									
1	ZOOL 650	Advanced Invertebrate	3	0	0	4.5	0	0	ZOOL 658
2	ZOOL 651	Advanced Parasitology	3	0	0	4.5	0	0	ZOOL 658
3	ZOOL 652	Advanced Embryology	3	0	0	4.5	0	0	ZOOL 658
4	ZOOL 653	Advanced Animal Ecology	3	0	0	4.5	0	0	ZOOL 658
5	ZOOL 655	Insect Taxonomy	3	0	0	4.5	0	0	ZOOL 658
6	ZOOL 656	Insect Physiology	3	0	0	4.5	0	0	ZOOL 658
7	ZOOL 657	Comparative Vertebrate Anatomy	3	0	0	4.5	0	0	ZOOL 658
8	ZOOL 659	Special Topics in Zoology	3	0	0	4.5	0	0	ZOOL 658

3. Course Specifications

Insert hyperlink for all course specifications using NCAAA template

Pl. See attached files

4. Program learning Outcomes Mapping Matrix

Align the program learning outcomes with program courses, according to the following desired levels of performance

(I = Introduced P = Practiced M = Mastered)

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding				Skills				Values		
	K1	K2	K3	K4	S1	S2	S3	S4	V1	V2	----
Course 611BIO	M	M	M	M	M	M	M	M	M	M	
Course 612BIO	M	M	M	M	M	M	M	M	M	M	
Course 613BIO	M	M	M	M	M	M	M	M	M	M	
Course 614BIO	M	M	M	M	M	M	M	M	M	M	
Course 615BIO	M	M	M	M	M	M	M	M	M	M	
Course 699BIO	M	M	M	M	M	M	M	M	M	M	
Course 630MIC	M	M	M	M	M	M	M	M	M	M	
Course 631MIC	M	M	M	M	M	M	M	M	M	M	
Course 632MIC	M	M	M	M	M	M	M	M	M	M	
Course 633MIC	M	M	M	M	M	M	M	M	M	M	
Course 634MIC	M	M	M	M	M	M	M	M	M	M	

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding				Skills				Values		
	K1	K2	K3	K4	S1	S2	S3	S4	V1	V2	----
Course 635MIC	M	M	M	M	M	M	M	M	M	M	
Course 636MIC	M	M	M	M	M	M	M	M	M	M	
Course 637MIC	M	M	M	M	M	M	M	M	M	M	
Course 638MIC	M	M	M	M	M	M	M	M	M	M	
Course 639MIC	M	M	M	M	M	M	M	M	M	M	
Course 640BOT	M	M	M	M	M	M	M	M	M	M	
Course 641BOT	M	M	M	M	M	M	M	M	M	M	
Course 642BOT	M	M	M	M	M	M	M	M	M	M	
Course 643BOT	M	M	M	M	M	M	M	M	M	M	
Course 644BOT	M	M	M	M	M	M	M	M	M	M	
Course 645BOT	M	M	M	M	M	M	M	M	M	M	
Course 646BOT	M	M	M	M	M	M	M	M	M	M	
Course 647BOT	M	M	M	M	M	M	M	M	M	M	
Course 648BOT	M	M	M	M	M	M	M	M	M	M	
Course 649BOT	M	M	M	M	M	M	M	M	M	M	
Course 650ZOO	M	M	M	M	M	M	M	M	M	M	
Course 651ZOO	M	M	M	M	M	M	M	M	M	M	
Course 652ZOO	M	M	M	M	M	M	M	M	M	M	
Course 653ZOO	M	M	M	M	M	M	M	M	M	M	
Course 654ZOO	M	M	M	M	M	M	M	M	M	M	
Course 655ZOO	M	M	M	M	M	M	M	M	M	M	
Course 656ZOO	M	M	M	M	M	M	M	M	M	M	
Course 657ZOO	M	M	M	M	M	M	M	M	M	M	
Course 658ZOO	M	M	M	M	M	M	M	M	M	M	
Course 659ZOO	M	M	M	M	M	M	M	M	M	M	

* 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.

	NQF Learning Domains and Learning Outcomes	Teaching Strategies
1.0	**Knowledge**	
1.1	Recall relevant course information	• Lecturing- interactive discussion • Tutorials. • Individual assignments. • Group discussion. • Quizzes • MCQs • Short answer questions.
1.2	Define structures/features/processes	
1.3	Label suitable names on diagrams	
1.4	State theories/hypothesis	
2.0	**Skills**	
2.1	Explain relative course aspects	• Problem Solving • Tutorials. • E-Videos. • Group Discussion. • Practical exams. • Debates. • Interactive Lectures using Audiovisual Materials. • Brainstorming. • Self-Learning Activities: • Library Work& Web Based learning • Resources for Review of Available Evidence. • Lab. work. Field trips.
2.2	Compare pairs of structures/processes	
2.3	Evaluate rates/quantities	
2.4	Analyze experimental data	
2.5	Interpret experimental results	
2.6	Appraise scientific theories	
2.7	Plan and carry out- field trips	
2.8	Design and execute experiments	
3.0	**Values**	
3.1	Exhibit leadership and personal responsibilities to accomplish group or individual activities in a manner consistent with relevant professional standards.	• Seminars • Group discussion. • Oral exam. • Laboratory work • Audiovisual Materials. • Self-Learning Activities: • Library work& web based learning.
3.2	Formulate effective information technology, analytical, mathematical and/or statistical techniques for data analysis, critical thinking and problem solving.	
3.3	Communicate effectively using the proper presentation forms, scientific language and reasoning appropriate for different issues and audiences.	

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.

	NQF Learning Domains and Learning Outcomes	Assessment Methods
1.0	**Knowledge**	
1.1	Recall relevant course information	• Midterm and Final examination (With MCQ & essay, Short answer. • Short written Assignment Tasks (Individual or Group).
1.2	Define structures/features/processes	
1.3	Label suitable names on diagrams	
1.4	State theories/hypothesis	

		• Class Participation. • Quizzes.
2.0	**Skills**	
2.1	Explain relative course aspects	• Quizzes • Problem solving question. • Midterm and Final examination (With MCQ & essay, Short answer. • Written Assignment. • Case study. • Discussion Forums. • Small group discussion. • Long and Short Essay. • Laboratory Reports. • Integrate technology and information systems skills in Biology.
2.2	Compare pairs of structures/processes	
2.3	Evaluate rates/quantities	
2.4	Analyze experimental data	
2.5	Interpret experimental results	
2.6	Appraise scientific theories	
2.7	Plan and carry out- field trips	
2.8	Design and execute experiments	
3.0	**Values**	
3.1	Exhibit leadership and personal responsibilities to accomplish group or individual activities in a manner consistent with relevant professional standards.	• Peer Evaluation (e.g. Checklist, Rating Scale/ Rubrics). • Self-Evaluation. • Problem Solving Questions. • Research Assignments. • Oral exam • Group discussion
3.2	Formulate effective information technology, analytical, mathematical and/or statistical techniques for data analysis, critical thinking and problem solving.	
3.3	Communicate effectively using the proper presentation forms, scientific language and reasoning appropriate for different issues and audiences.	

D. Thesis and Its Requirements (if any)

1. Registration of the thesis:

(Requirements/conditions and procedures for registration of the thesis as well as controls, responsibilities and procedures of scientific guidance)

- **Each graduate student is assigned a practical academic advisor at the start of joining the program.**
- **To register the thesis, the student must pass 50% of the number of courses with a percentage not equal to very good. After a thesis supervisor has been appointed, the student who meets the registration conditions shall submit to the department's Higher Studies Committee the thesis plan, and a seminar will be set for him to discuss his plan. After the procedure, the comments recommended by the members of the seminar are submitted to the department council for approval Administrative Procedures and Approvals - The student is considered registered for the thesis after the approval of the Council of the Deanship of Graduate Studies at the university.**

2. Scientific Supervision:

(The regulations of the selection of the scientific supervisor and his/her responsibilities, as well as the procedures/ mechanisms of the scientific supervision and follow-up)

The scientific supervisor is required to have a doctorate degree and has two published research papers in a refereed journal. It is also required that at least two years have passed since his appointment to the rank of assistant professor.

- The scientific supervisor is chosen in light of the continuity of scientific guidance as a basic principle or according to what is organized by the Dean of Graduate Studies at the university, such as the maximum number of supervision or exception with the approval of the department and college council.

The scientific supervisor follows up on the student and writes a quarterly report on his condition and submits it to the department and the Deanship of Graduate Studies.

3.Thesis Defense/Examination:

(The regulations for selection of the defense/examination committee and the requirements to proceed for thesis defense, the procedures for defense and approval of the thesis, and criteria for evaluation of the thesis)

The number of its members is odd, and the supervisor is its rapporteur.

- The number of members of the committee shall not be less than three from among the members of the teaching staff, and the supervisor and the assistant supervisor do not represent the majority of it
- At least one of the participating professors should be among the committee members.
- To take its decisions with the approval of at least two thirds of the members.
- After the student has completed the preparation of the thesis, the supervisor of the thesis submits a report on its completion to the head of the department to complete the procedures determined by the Council of the Dean of Graduate Studies.
- During the discussion of the scientific thesis, the head of the scientific department or his representative shall be a representative of the Deanship of Graduate Studies during the discussion.
- The discussion committee prepares a report signed by all its members and submitted to the department head within a week from the date of the discussion.
- The thesis is evaluated according to the deanship's forms, either by accepting the thesis and recommending the award of the degree - accepting the thesis with making some modifications without discussing it again - not accepting the thesis.

E. Student Admission and Support:

1. Student Admission and Transfer Requirements, and Courses Equivalency

- B.Sc. Grade (4 or higher)
- English language proficiency (TOEFL 400)
- Interview (Pass)
- The applicant must be a Saudi
- To have a university degree from a Saudi university or another recognized university.
- To be of good conduct and behavior, and medically fit.
- - To submit two scientific recommendations from professors who have taught him previously.
- - Approval of his reference to the study if he was an employee.
- In addition to the following conditions:
- - That the applicant's grade corresponds to Articles (14 and 15) of the unified regulations for postgraduate studies in Saudi universities.
- To pass the undergraduate competency test provided by the National Center for Measurement and Evaluation.

2. 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 Master 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.
- Faculty 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 faculty of science, but cases requiring psychological guidance are referred to the Academic Guidance Unit of the Deanship of Student Affairs at Jazan University.

3. 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.

F. 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		4	4	8
Associate Professors	Biology	Zoology, Botany and Microbiology		4	4	8
Assistant Professors	Biology	Zoology, Botany and Microbiology		5	5	10
Technicians and Laboratory Assistants	Biology	Zoology, Botany and Microbiology		N.A	N.A	N.A

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Administrative and Supportive Staff	Biology	Zoology, Botany and Microbiology		2	7	9
Others (specify)	Any	Any		2	5	7

2. Professional Development

2.1 Orientation for 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 Faculty 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, seminaries, 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.

G. Learning Resources, Facilities, and Equipment

1. Learning Resources.

Policies and Procedure 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.
- Faculty 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 faculty of science building. Also the faculty of science library is located in the second floor of the main the main faculty 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

Policies and Procedure for providing and quality assurance of 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) Faculty of Sci. Capacity: 30 Student	
Instruments and equipments	Spectrophotometer, Growth chamber, Oven, pH-meter, Muffle, Water bath, Heater, Microscopes, Balance, Magnetic stirrer.
Botany lab.(1) (G 611) Faculty of Sci. Capacity: 30 Student	
Instruments and equipments	Spectrophotometer, Growth chamber, Oven, pH-meter, Water bath, Heater, Microscopes, Balance, Magnetic stirrer.
Microbiology lab.(1) (G 608) Faculty of Sci. Capacity: 20 Student	
Instruments and equipments	Colony counters, Oven, pH-meter, shaker Water bath, Heater, Microscopes, Balance, Magnetic stirrer, Autoclave, Centrifuge
Microbiology lab.(2) (G 604) Faculty of Sci. Capacity: 25 Student	
Instruments and equipments	Colony counters, Oven, pH-meter, Shaker Water bath, Water bath, Heater, Microscopes with camera, Microscopes, Balance, Magnetic stirrer, Autoclave, Spectrophotometer, Distillatory, Incubator

Biotechnology Lab. Faculty of Sci. Capacity: 20 Student	
Instruments and equipments	Colony counters, Oven, pH-meter, Shaker Water bath, Water bath, Heater, Microscopes with camera, Microscopes, Balance, Magnetic stirrer, Autoclave, Incubator

Zoology Lab 1. (G 705) Faculty of Sci. Capacity: 25 Student	
Instruments and equipments	Microtome, Oven, pH-meter, Spectrophotometer, Water bath, Heater, Microscopes, Balances

Zoology Lab 2. (G 707) **Faculty of Sci. Capacity: 25 Student**	
Instruments and equipments	Oven, pH-meter, Spectrophotometer, Water bath, Heater, Microscopes, Balances
Genetics Lab. (G 706) **Faculty of Sci. Capacity: 20 Student**	
Instruments and equipments	Slides staining device, Deep freezer, oven, Water bath, Heater, Microscopes, Balances
Herbarium (G 708) **Faculty of Sci. Capacity: 10 Student**	
Instruments and equipments	oven, Water bath, Heater, Microscope
PY Lab 1. (G 708) **Faculty of Arts Capacity: 30 Student**	
Instruments and equipments	Microscope
PY Lab 2. (G 707) **Faculty of Arts Capacity: 30 Student**	
Instruments and equipments	Microscope

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/?irn=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)

Faculty 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 adminstation 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 faculty 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.

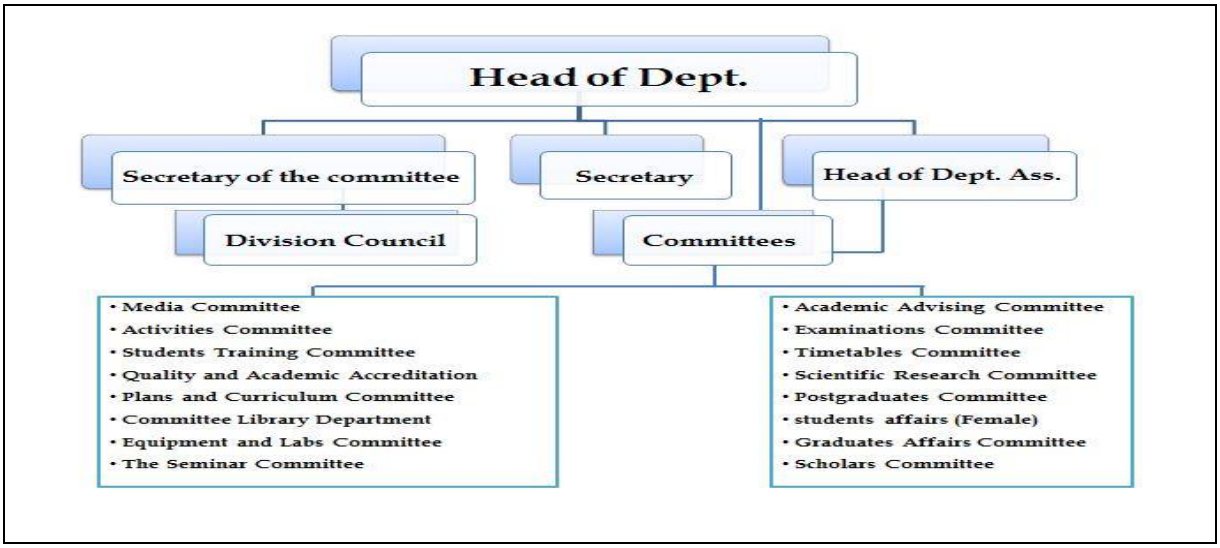
Adopting regulations and guideline of **JU Administration of Security and Public Health**
https://www.jazanu.edu.sa/sites/en/Administrations/ss-admin/Pages/default.aspx

H. 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.)

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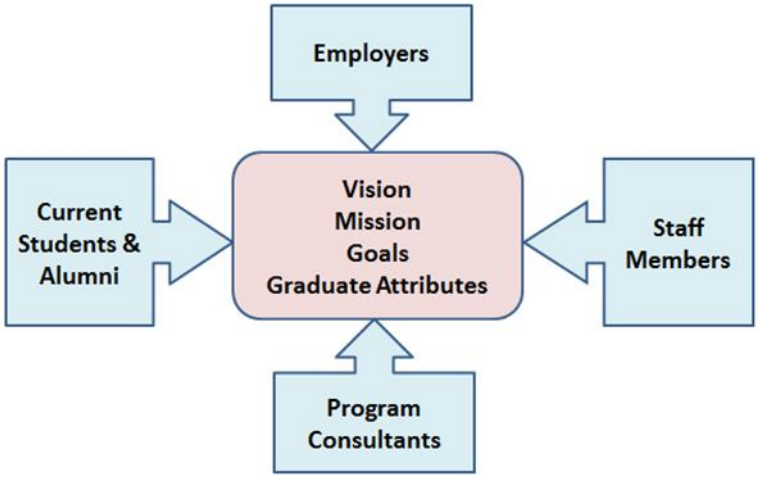


- Biology department has adopted a framework for the representation and involvement of stakeholders in program planning and development. The primary objective was to create a structure to receive feedback from various stakeholders through the formation. The Committee for Information, Opinion Polls and 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 Master biology program in faculty 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 post-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 post-graduates of the Master 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/AdmissionofFreshmanyearstudents.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

I. Program Quality Assurance

1. Program Quality Assurance System
Provide online link to quality assurance manual

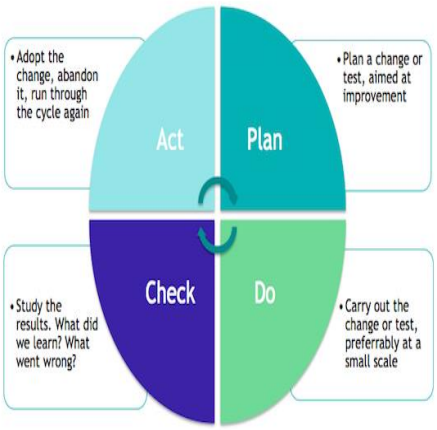
Program Quality Assurance System

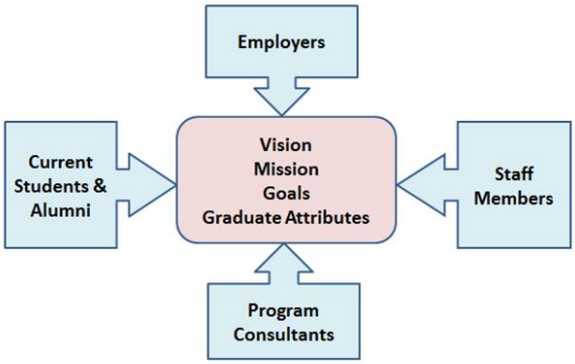
1. Planning, Development and Quality Management.
2. Communicating with all academic and administrative entities (senior leaders, heads of department and units, staff, faculty, students, etc.) inside the SRCs (via email, formal letters, etc.) for any matter related to planning, development or quality 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.

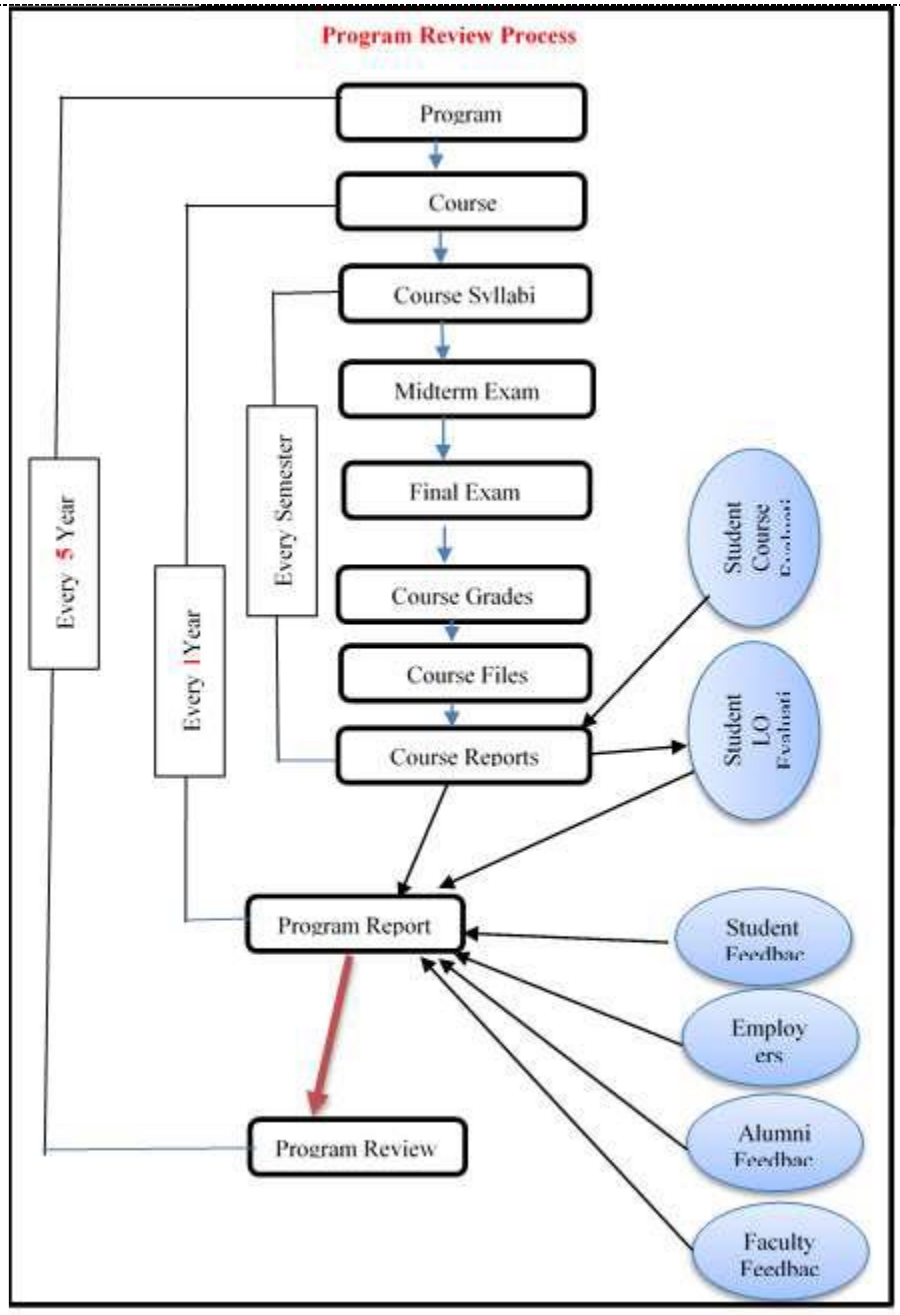
Science QA Unit:

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





Quality Assurance Manual


Program Review Process
Program
Course
Course Syllabi
Midterm Exam
Final Exam
Course Grades
Course Files
Course Reports
Program Report
Program Review
Every 5 Year
Every 1Year
Every Semester
Student Course Evaluati
Student LO Evaluati
Student Feedbac
Employ ers
Alumni Feedbac
Faculty Feedbac


Self Study
Action Plan
Program Report
Curriculum Mapping
Evaluation

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:

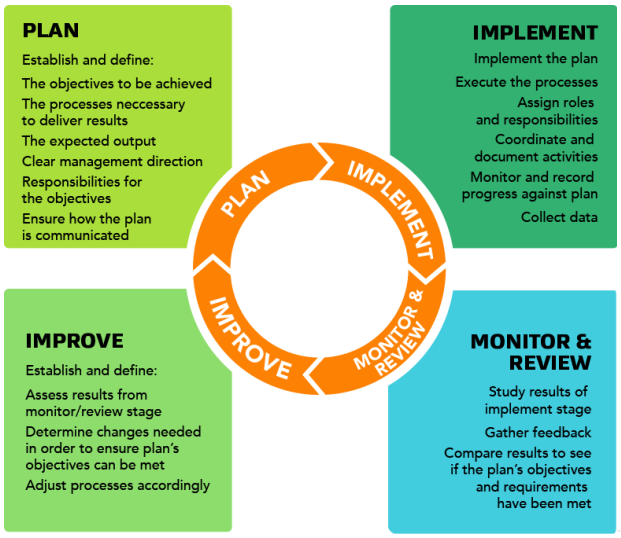
- Identifying the vision, goals or objectives to be achieved.
- Formulating the strategies needed to achieve the vision and goals.
- Determining and allocating the resources (financial and other) required achieving.
- Outlining implementation arrangements, which include the arrangements for monitoring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

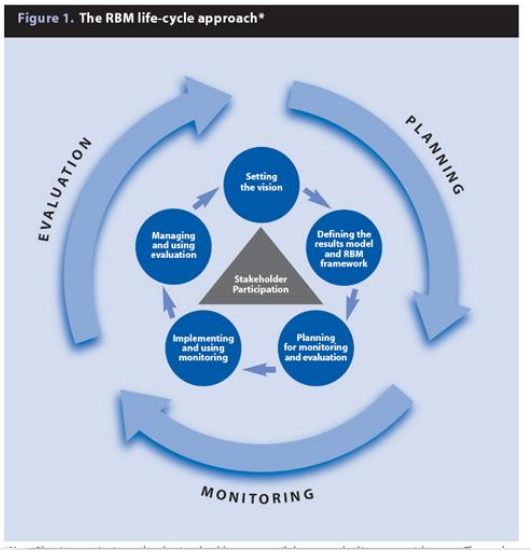
2- Monitoring in nursing college can be defined as the ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives. Focuses on reviewing progress against achieving goals.

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
- The scientific department concerned with teaching these courses shall prepare the course description and specification according to NCAAA format 2019.
- 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 faculty 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 2019 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 faculty 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, Master 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 Master Biology Program and the Faculty of Science, but most partnerships are conducted between Master 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 Master 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.

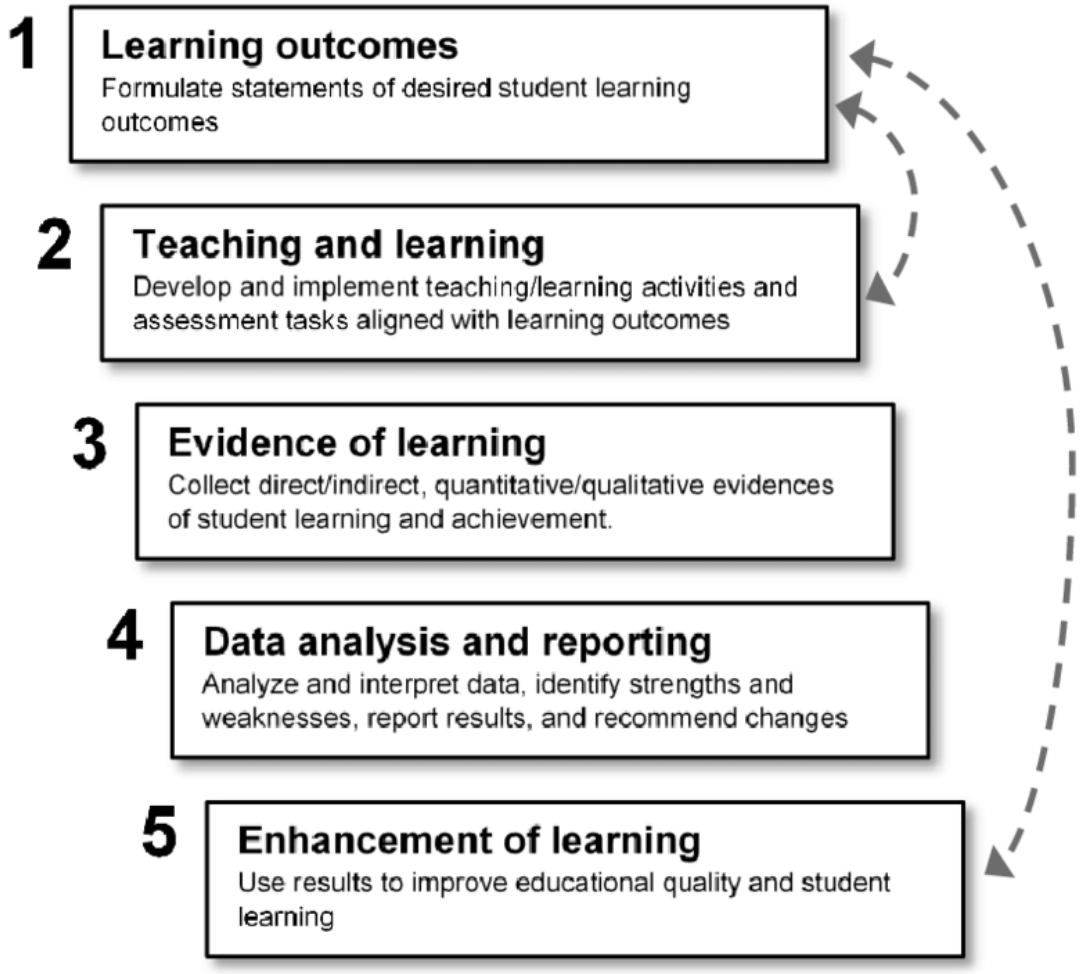
Surveys from Alumni, Employer and exit interviews.

- 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. Evaluation of Program Quality Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Leadership	Program leaders	Interviews, surveys	End of academic year
Effectiveness of teaching & assessment	Independent reviewers	Surveys	End of academic year

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Learning resources	Faculty, administrative staff	Surveys, interviews, visits	End of academic year
Partnerships	Alumni, faculty, program leaders	Surveys, Visits	End of academic year
Leadership	Program leaders	Interviews, surveys	End of academic year

Evaluation Areas/Aspects (e.g., leadership, effectiveness of teaching & assessment, learning resources, partnerships, etc.)
Evaluation Sources (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others (specify)
Evaluation Methods (e.g., Surveys, interviews, visits, etc.)
Evaluation Time (e.g., beginning of semesters, end of academic year, etc.)

8. Program KPIs*

The period to achieve the target (.....) year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1	**KPI-PG1**	Percentage of achieved indicators of the program operational plan objectives	**80%**	Percentage of performance indicators of the operational plan objectives of the program that have achieved the targeted annual level to the total number of indicators targeted for these objectives in the same year.	**End of the program**
2	**KPI-PG2**	Students' Evaluation of quality of learning experience in the program	**4**	Average of overall rating of final year students for the quality of learning experience in the program on a five point scale in an annual survey.	**End of the semester**
3	**KPI-PG3**	Students' evaluation of the quality of the courses	**4.5**	Average students' overall rating of the quality of courses on a five- point scale in an annual survey.	**End of the semester**
4	**KPI-PG4**	Students' evaluation of the quality of scientific supervision	**4**	Average students' overall rating of the quality of scientific supervision on a fivepoint scale in an annual survey.	**End of the semester**
5	**KPI-PG5**	Average time for students' graduation	**4**	Average time (in semesters) spent by students to graduate from the program.	**End of the semester**
6.	**KPI-PG6**	Rate of students dropping out of the program	**0**	Percentage of students who did not complete the program to the total number of students in the same cohort.	**End of the semester**
7	**KPI-PG7**	Graduates' employability	**80**	Percentage of graduates from the program who within a year of graduation were employed to the total number of graduates in the same year.	**End of the semester**
8	**KPI-PG8**	Employers' evaluation of the program graduates' competency	**4**	Average of overall rating of employers for the competency of the program graduates on a five-point scale in an annual survey.	**End of the semester**

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
9	**KPI-PG9**	Students' satisfaction with the provided services	**4**	Average of students' satisfaction rate with the various services provided by the program (food, transportation, sport facilities, academic advising) on a five point scale in an annual survey.	**End of the semester**
10	**KPI-PG10**	Ratio of students to faculty members	**1:4**	Ratio of the total number of students to the total number of full-time and fulltime equivalent faculty members participating in the program.	**End of the semester**
11	**KPI-PG11**	Percentage of faculty members' distribution based on academic ranking	**Prof. 25% Associate Prof. 60% Assistant Prof. 15%**	Percentage distribution of faculty members participating in the program based on academic ranking.	**End of the semester**
12	**KPI-PG12**	Proportion of faculty members leaving the program	**0**	Proportion of faculty members leaving the program annually for reasons other than age retirement to the total number of faculty members.	**End of the semester**
13	**KPI-PG13**	Satisfaction of beneficiaries with learning resources	**4**	Average of beneficiaries' satisfaction rate with learning resources on a five-point scale in an annual survey in terms of: a. a. Their adequacy and diversity (references, journals, databases… etc.) b. The support services provided for their utilization	**End of the semester**
14	**KPI-PG14**	Satisfaction of beneficiaries with research facilities and equipment	**4**	Average of beneficiaries' satisfaction rate with research facilities and equipment (depending on the nature of the program) on a five-point scale in an annual survey.	**End of the semester**
15	**KPI-PG15**	Percentage of publications of faculty members	**70%**	Percentage of faculty members participating in the program with at least one research publication during the year to total faculty members in the program.	**End of the Year**
16	**KPI-PG16**	Rate of published research per faculty member	**3**	The average number of refereed and/or published research per each faculty member participating in the program during the year (total number of refereed and/or published research to the total number of faculty members during the year)	**End of the year**

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
17	**KPI-PG17**	Citations rate in refereed journals per faculty member	**10**	The average number of citations in refereed journals from published research (total number of citations in refereed journals from published research for faculty members to the total published research)	**End of the Year**
18	**KPI-PG18**	Percentage of students' publication	**50%**	Percentage of students who: a. published their research in refereed journals b. presented papers in conferences to the total number of students in the program during the year.	**End of the Year**
19	**KPI-PG19**	Number of patents, innovative products, and awards of excellence	**3**	Number of: a. Patents and innovative products b. National and international excellence awards obtained annually by the students and staff of the program.	**End of the Year**

* including KPIs required by NCAAA

j. Specification Approval Authority

Council / Committee	**BOARD OF MASTER BIOLOGY PROGRAM**
Reference No.	**MEETING OF THE BOARD OF BIOLOGY DEPARTMENT 1442-1443**
Date	**Feb 18, 2022**