

## Academic Program Specification Form For The Academic

University: Anbar

College: Science

Department: **Biotechnology**

Date of Form Completion: 17 - 6 - 2025



Dean's Name

Date: / /  
Signature

29/9

Dean's Assistant For  
Scientific Affairs

Date: / /  
Signature

Head of Department

Date: / /

Signature  
أ.د. احمد عبد الجبار سليمان

Quality Assurance and University Performance

Manager Date: / /

Signature

Signature  
أ.د. احمد سلمان عبيد  
معاون العميد للشؤون العلمية والطلبة



## TEMPLATE FOR PROGRAMME SPECIFICATION

### HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

#### PROGRAMME SPECIFICATION

This Program Specification provides a concise summary of the main features of the program and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the program.

1. Teaching Institution	University of Anbar
2. University Department/Centre	Biotechnology
3. Program Title	Bachelor
4. Title of Final Award	Bachelor - Biotechnology
5. Modes of Attendance offered	Semester
6. Accreditation	Biotechnology
7. Other external influences	Field work and scientific trips to rock outcrops , geological sites and institutions
8. Date of production/revision of this specification	4 – 2 – 2024
9. Aims of the Program	
	Providing relevant institutions and departments with technical and scientific cadres of recent graduates.

## **10. Learning Outcomes, Teaching, Learning and Assessment Methods**

### **A. Knowledge and Understanding**

- A1. Choosing the best modern scientific methods in delivering information to students through a professional teaching staff.
- A2. Providing students with scientific and practical Biotechnology experiences in all its branches through practical application in the department's laboratories and multiple field trips.

### **B. Subject-specific skills**

The department aims to graduate scientific cadres working in the following:

- B 1. Health and educational institutions
- B2. Develop the student's research and analytical ability.
- B 3. Develop the deductive side of the students.
- B4. Learn how to work with scientific instruments

### **Teaching and Learning Methods**

- Surprise daily tests (Quizzes) and weekly continuous exams.
- Practical exercises and activities in the classroom.
- Guiding students to scientific references to expand student's perceptions in understanding scientific courses.

### **Assessment methods**

- Participation in the classroom.
- Presentation of activities.
- Semester and final exams.

### **C. Thinking Skills**

- C1. Develop the students ability to understand the specialization and deal with it flexibly
- C2. Create a familiarity with branch applications.
- C3. Responsibility in serving the community and the country through this scientific branch.

### **Teaching and Learning Methods**

- Managing the lecture on an applied and scientific approach in a way that can be understood and analyzed.
- Giving students some group activities and assignments.
- Allocate a percentage of grades for the daily assignment and activities.

### Assessment methods

- Active participation in the classroom is evidence of student commitment and responsibility.
- Commitment to deadlines for submitting assignments and research.
- The quarterly and final exams are an expression of commitments and cognitive and skill achievement.
- Applications, exercises and daily assignments.

General and Transferable Skills (other skills relevant to employability and personal development)

- D1. Develop the student ability to deal with technical means.
- D2. Develop the student ability to deal with internet.
- D3. Develop the student ability to deal with multimedia.
- D4. Develop the student ability to dialogue and discussion.

### Teaching and Learning Methods

- Presenting the courses in a clear and simplified manner with the use of correspondence and illustrative charts and presentation through the power point technique.
- Classroom and laboratory exercises and activities
- Weekly and quarterly assignments and reports.
- Guidance to scientific references to expand understanding of course details.
- Visits and field trips to work sites.

### Assessment Methods

- Surprise daily tests or exams (Quizzes).
- Participation in the classroom.
- Presentation of activities.
- Semester and final exams.

### 11. Program Structure

### 12. Awards and Credits

Level/Year	Course or Module Title	Creditrating	
		Theoretical	Practical
3rd	Molecular biology	2	2
3rd	Viruses	2	2
3rd	Research Method	2	2
3rd	Animal physiology	2	2

3rd	<b>Optional Lesson 1</b>	2	2
3rd	<b>Biochemical techniques</b>	2	-
3rd	<b>English</b>	2	-
3rd	<b>Microbiology genetics</b>	2	2
3rd	<b>Immunity</b>	2	2
3rd	<b>Fungi</b>	2	2
3rd	<b>Plant physiology</b>	2	2
3rd	<b>Optional Lesson 2</b>	2	2
3th	<b>Ferments</b>	2	2
4th	<b>Animal tissue culture</b>	2	2
4th	<b>Principles of genetic engineering</b>	2	2
4th	<b>Food Microbiology</b>	2	-
4th	<b>research project</b>	2	2
4th	<b>Pathogenic bacteria</b>	2	-
4th	<b>Optional Lesson</b>	2	-
4th	<b>English</b>	2	2
4 <sup>th</sup>	<b>Bioinformatics</b>	2	2
4th	Plant tissue culture	2	2
4th	Genetic engineering applications	2	2
4th	Industrial microbiology	2	2
4th	Algae	2	2
4th	Antibiotics	2	2
4th	Optional Lesson 2	2	2

### 13. Personal Development Planning

Follow up, Support and guide outstanding students and build their mental and scientific capabilities in line with their abilities and orientations in different branches.

### 14. Admission criteria.

Students who graduate from the sixth middle school accept the biological or applied branch with a rate of at least 80 %, in addition to the possibility of private admission.

### 15. Key sources of information about the program

One of the most important sources of information for the study program is the reliance on curricula and courses recognized in faculties and scientific departments in European and American universities. In addition to communicating with institutions and state administrations that possess chemical cadres, to set study programs that contribute to the graduation of students with scientific and applied experiences, to work in relevant departments and institutions, as well as support graduate programs.

## Curriculum Skills Map

**please tick in the relevant boxes where individual Program Learning Outcomes are being assessed**

		<b>Program Learning Outcomes</b>																
Year / Level	Course Title	Core (C) Title or Option(O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
			A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
3rd 3rd	Molecular biology Viruses	C	✓	✓			✓	✓						✓	✓			
3rd 3rd	Research Method Animal physiology	C	✓	✓			✓	✓						✓	✓	✓		
3rd 3rd	Optional Lesson 1 Biochemical techniques	C	✓	✓			✓							✓				
3rd 3rd	English Microbiology genetics	C	✓				✓							✓				
3rd 3rd	Immunity Fungi	C	✓	✓			✓	✓						✓	✓			
3rd 3rd	Plant physiology Optional Lesson 2	C	✓				✓							✓				
3th 4th	Ferments Animal tissue culture	C	✓	✓			✓	✓						✓	✓	✓		
4th 4th	Principles of genetic engineering	C	✓				✓	✓						✓				
4th 4th	Food Microbiology research project	C	✓				✓							✓	✓			
4th 4th	Pathogenic bacteria	C	✓	✓			✓	✓						✓	✓	✓		

