University of Diyala
جامعة ديالى

First Cycle – Bachelor's Degree (B.Sc.) – Biology
بكالوريوس - علوم حياة

المستوى الثالث
Level Three

August , 2025

Table of Contents | جدول المحتويات

1. Mission & Vision Statement

Vision Statement

Opportunities for high-level training are available for the students enrolled in the Department of Biology, to prepare them to enter the labor market after graduation to work in the medical laboratories, teaching in the secondary schools, and working in the agricultural enterprises, environmental affairs, water resources and other institutions that have relationships with biological sciences in one way or another. The combination of instructional methods leads students to a balanced understanding of the scientific methods used by biologists to make observations, develop insights and create theories about the living organisms that populate our planet. Small class sizes within the biology program foster a close working relationship between academic staff and students in an informal and nurturing atmosphere.

Mission Statement

The biology academic staff pursues a multifaceted charge at Diyala University. The Program seeks to provide all biology students with fundamental knowledge of biology, as well as a deeper understanding of a selected focus area within the biological sciences. The curriculum and advising have been designed to prepare graduates for their professional future, whether they choose to work as field biologists specializing in botany or wildlife, or to pursue advanced degrees in the life sciences or health sciences. The biology program also provides the necessary fundamental knowledge of the life sciences to suppofi the Nursing degree, the Environmental Studies degree, and the Associate of Science degree in Forest Technology. In addition, biology courses provide a key laboratory science experience for those students seeking to complete the general education requirements

2. Program Specification

Programme code:	BSc-Bio	**ECTS**	240
Duration:	4 levels, 8 Semesters	**Method of Attendance:**	Full Time

Biology means the study of life. It is an exciting, wonderful and rapidly developing subject. Biology play an important role in overcoming the global challenges from disease to environment of the earth. The programme puts a strong emphasis on research and academic skills training across all years. The BSc in Biology is designed to provide students with a solid foundation in fundamentals aspects of plant, animal, ecology, genetics and microbiology. The programme provide skills in laboratory and practical skills that are appropriate to the study of living organisms. The programme is also designed to provide students with a wide-ranging exposure to the theory and practice of the courses, as well as an education in its diverse applications in medicine, industry, and environment.

Biology graduates are qualified for many different types of careers. The breadth of biology studied will determine the opportunities available, but regardless of the path chosen, students will have acquired a broad variety of subject-specific and general abilities that are applicable to jobs in both the biological and non-biological domains.

To graduate, a student shall have undergone 8 semesters of study including summer practical training. Course workload must meet the graduation requirements of the University based on minimum academic standards. The student must earn a minimum of 240 ECTS for the four-year programme.

Level one is focusing on fundamental topics such as Zoology, Botany, Chemistry, Biophysics and Mathematics. Level two will cover a range of concepts including biological systems and the importance of biology in real life. The students will explore topics such as Biochemistry, Entomology, Microbiology, Parasitology, Plant Taxonomy and Anatomy allowing them to develop their interests at a higher level. During level three and four, the students will study in-depth courses provide them an opportunities to learn specialist topics such as biotechnology, molecular biology, pathogenic bacteria, medical virology, pollution, histology and immunology. In the fourth year, more emphasis is placed on student centred learning exercises, workshops, and seminars. Year 4 has a compulsory undertaking a research project/dissertation.

3. Program Objectives

1. A comprehensive study of biological sciences, their applications and uses in society theoretically, scientifically and applicability.
2. Preparation of scientific cadres to work in the fields of medicine and health, agricultural and food industries.
3. Providing the students with the necessary scientific techniques and how to deal with devices and equipments that can be used in theoretical and applied studies.
4. Providing the state institutions, private and mixed sectors (medical, industrial and laboratory institutions) with specialized cadres.
5. Investigate and study the new developments in the biological sciences and keep updated with the scientific developments in this field and incorporate that within the prescribed curriculum.
6. To prepare students for a wide variety of post-baccalaureate paths, including graduate school, professional training programs, or entry level jobs in any area of biology.

4. Student Learning Outcomes

Biology is the study of the organization and operation of life at the molecular, cellular, organism, and population levels. Graduates obtain information on the historical, technical and social aspects of biology and utilize basic knowledge toward realizing broader concepts. The Department offers a Bachelor of Science in Biology with a concentration in General Biology; Pre-medicine / Pre-dentistry; Biotechnology/Molecular Biology and a minor in Secondary Education that leads to a Public Instruction License. Additionally, the Department offers courses to a large number of students from other departments and supports pre-professional programs. The Biology curriculum and experiences are designed to prepare students, in part, for entry into professional health programs, graduate studies, technical careers and education.

1. Graduates will be able to illustrate the structure and function cellular components and explain how they interact in a living cell.
2. Graduates will be able to formally communicate the results of biological investigations using both oral and written communication skills.
3. Graduates will be able to perform laboratory experiments and field studies, by using scientific equipment and computer technology while observing appropriate safety protocols.
4. Graduates will be able to demonstrate a balanced including the historical development of foundational concept of how scientific knowledge develops, theories and laws and the nature of science.
5. Graduates will be able to demonstrate scientific quantitative skills, such as the ability to conduct simple data analyses.
6. Graduates will be able to use critical-thinking and problem-solving skills to develop a research project and/or paper.

5. Academic Staff

Ibrahim Hadi Mohammed| Ph.D. in Biology | Professor.
Email: dr.ibrahimhadi@uodiyala.edu.iq
Mobile No.: 07700605812

Hadi Rahman Rashid | Ph.D. in Biology | Professor
Email: hadialtaai@uodiyala.edu.iq
Mobile No.: +9647700361772

Khazaal Dhbea Wadi | Ph.D. in Biology | Professor
Email: dr.khazal@uodiyala.edu.iq
Mobile No.: +9647506101755

Kareem Ibrahim Mubarak | Ph.D. in Biology | Professor
Email: kareemmubarak@uodiyala.edu.iq
Mobile no.: +9647704332205

Esam Hamid Hameed | Ph.D. in Biotechnology | Assistant Professor
Email: esam_hummadi@uodiyala.edu.iq
Mobile No.: +9647713553577

Abbas Yaseen Hasan | Ph.D. in Biology | Assistant Professor
Email: abbasyaseen@uodiyala.edu.iq
Mobile No.: +9647703715569

Anwar Abdulameer Mohammed | Ph.D. in Biology | Assistant Professor
Email: anwarabdulameer@uodiyala.edu.iq
Mobile No.: +9647902677357

Izdihar Mohammed Jassim | Ph.D. in Biology | Assistant Professor
Email: izdehar@uodiyala.edu.iq
Mobile No.:

Ibtihal Hameed Mohsin | Ph.D. in Biology | Assistant Professor
Email: ibtihalhameed@uodiyala.edu.iq
Mobile No.: +9647707902094

Lina Abdulameer Salman Dawood | Ph.D. in Biology | Assistant Professor
Email: linaabdulameer@uodiyala.edu.iq
Mobile No.: +9647716118858

A Ansam Dawood Salman | Ph.D. in Biology | Assistant Professor
Email: ansamdawood@uodiyala.edu.iq
Mobile No.: +9647711236340

Iman Abbas Ali | Ph.D. in Biology | Assistant Professor
Email: imanabbas@uodiyala.edu.iq
Mobile No.: +9647710678065

Raghad Ibrahim Ahmed | Ph.D. in Biology | Assistant Professor
Email: raghadibrahim@uodiyala.edu.iq
Mobile No.: +9647715127185

Sana Najam Abed | Ph.D. in Biology | Assistant Professor
Email: sanaa.abed@uodiyala.edu.iq
Mobile No.: +9647708028840

Mayyadah Nazar Jabbar | M.Sc. in Biology | Assistant Prof.
Email: mayyadanazar@uodiyala.edu.iq
Mobile No.: +9647751669585

Khalid Dheyaa Abdulwahid | M.Sc. in Biology | Assistant Professor
Email: chechanikd75@uodiyala.edu.iq
Mobile No.: +9647724390485

Asraa Dawod Farhan | Ph.D. in Biology | Lecturer
Email: asraa@uodiyala.edu.iq
Mobile no.: +9647700286309

Reham Najim Abed | Ph.D. in Biology | Lecturer
Email: dr.rehamnajim@uodiyala.edu.iq
Mobile no.: +9647712900724

Ahmed Hatem Alwan| Ph.D. in Biochemistry | Lecturer

Email: ahmedchem@uodiyala.edu.iq
Mobile no.: 07704724168

Ahlam Kadhim Abed | M.Sc. in Biology | Lecturer
Email: ahlam@uodiyala.edu.iq
Mobile no.: 07711018743

Saba Adnan Abbas | M.Sc.. in in Biology | Lecturer
Email: sabaadnan@uodiyala.edu.iq
Mobile no.: +9647706942011

Naseer Khalil Abed | Ph.D. in Biology | Lecturer
Email: naseerkhalel@uodiyala.edu.iq
Mobile No.: 07711934650

Mohammed Abdulamir Shawket | M.Sc. in Biology | Lecturer
Email: mohammadabdulamir@uodiyala.edu.iq
Mobile No.: +9647702671387

Shaymaa Majeed Mohammed | M.Sc. in Biology | Assistant Lecturer
Email: shayamaamajeed@uodiyala.edu.iq
Mobile No.: +9647710749459

Ali Atiyah Nife | M.Sc. in Biology | Assistant Lecturer
Email: aliatiyah@uodiyala.edu.iq
Mobile No.: +9647745753444

Huda Abdulhameed Abdulrahman | M.Sc. in Biology | Assistant Lecturer
Email: hudaabdulhamied@uodiyala.edu.iq
Mobile No.: +9647706911729

6. Credits, Grading and GPA

Credits

Diyala University is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

Grading

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

GRADING SCHEME مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب - قيد المعالجة	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note:				
Number Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

Calculation of the Cumulative Grade Point Average (CGPA):

The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:
CGPA = [(1st ^{m}odule score x ECTS) + (2nd ^{m}odule score x ECTS) + ……] / 240

7. Curriculum/Modules

Semester 5 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
Bio-3511	Cell Biology	63	62	5	C	
Bio-3512	Ecology	63	37	4	C	
Bio-3513	Histology	63	37	4	C	
Bio-3514	Mycology	63	62	5	C	
Bio-3515	Plant Physiology	63	37	4	C	
Bio-3516	Immunology	63	37	4	C	
Bio-3517	Parasitology	63	37	4	E	

Semester 6 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
Bio-3611	Genetics	63	62	5	C	
Bio-3612	Environmental Pollution	63	62	5	C	
Bio-3613	Animal Physiology	63	37	4	C	
Bio-3614	Biotoxicology	63	37	4	E	
Bio3615	Microbiology(Aquatic and Soil)	63	37	4	C	
Bio-3616	Microbial Physiology	63	37	4	C	
Bio-3617	Biological Control	63	37	4	C	

8. Contact

Program Manager:
Dr. Esam Hamid Hameed | Ph.D. in Biotechnology | Assistant Professor
Email: esam_hummadi@uodiyala.edu.iq
Mobile No.: 07713553577

Program Coordinator:
Naseer Khalil Abed | Ph.D. in Biology | Lecturer
Email: naseerkhalel@uodiyala.edu.iq
Mobile No.: 07711934650