

# University of Mosul



## College of Science

*First Cycle – Bachelor's degree (B.Sc.) – Biology*

---



# Table of Contents |

---

1. Mission & Vision Statement
2. Program Specification
3. Program (Objectives) Goals
4. Program Student learning outcomes
5. Academic Staff
6. Credits, Grading and GPA
7. Modules
8. Contact

## 1. **Mission & Vision Statement**

### *Vision Statement*

In the Department of Biology, we strive to be at the forefront of educational institutions that contribute to the development of scientific and technical competencies by making strenuous efforts to apply the latest scientific curricula that combine the basics and continuous development to serve society, sustainable development, and excellence in disseminating knowledge in the fields of life sciences (botany, zoology, and microbiology) through scientific research, where students can explore new horizons and develop innovative solutions to contemporary challenges. We believe that education should be a catalyst for permanent change to serve the requirements of the labor market.

### *Mission Statement*

The Department of Biology at the College of Science is committed to providing a unique educational experience that aims to equip its students with the knowledge and practical skills necessary to deal with the various challenges in the field of different life sciences (botany, zoology, and microbiology). We also seek to enable our department graduates to be pioneers and possess professional experiences that enable them to enjoy good opportunities locally and globally by enhancing their ability to think scientifically and solve problems in innovative ways, which contributes to achieving sustainable development and providing the labor market with these competencies and making efforts to hone students' talents and develop their capabilities to help develop and advance society.

## 2. Program Specification

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

**Preparing qualified graduates with knowledge and creativity in the field of biology, who are able to interact with the requirements of the age and technology, and contribute to building Iraqi society on sound scientific and ethical foundations.**

Level 1 exposes students to the fundamentals of Biology, suitable for progression to all programmes within the biology programme group. Programme-specific core topics are covered at Level 2 preparing for research-led subject specialist modules at Levels 3 and 4. The University Biology graduate is therefore trained to appreciate how research informs teaching, according to the University and School Mission statements.

At Levels 2, 3 and 4 students are free to choose more than half of their module credits with the proviso a range of modules are selected that reflect the complexity of life forms from molecules, through organisms, both plants and animals, to populations to ensure the breadth of knowledge expected of a graduate with a biology degree. This allows students to develop their own wide-ranging interests in organismal biology. Decisions on what to study are made with input from personal tutors.

The research ethos is developed and fostered from the start via practicals, which are either embedded in lecture modules or taught in dedicated practical modules, research seminars and tutorials. There is a compulsory field course in Level 1, which students must pass in order to progress into Level 2, and optional field courses in Levels 2, 3 and 4. At Level 4 all students carry out an independent research project, which may be a xx credit library or data analysis project, or a xx credit field or laboratory based project.

Academic tutorials are held at Levels 1 and 2 with the same tutor, who is also the personal tutor, providing continuity and progressive guidance. Level 1 and 2 tutorials include a number of workshops to teach skills, e.g. library use and presentation skills, followed by assessed exercises, e.g. essays and talks, as opportunities to practice these skills in a subject-specific context.

International years and Industrial placements are also offered and individual needs are discussed with the appropriate tutor and accommodated wherever possible.

### **3. Program Objectives**

#### 1. Developing the ability to innovate and support scientific entrepreneurship

The Department of Biology seeks to enhance students' skills in creative thinking and solving problems in unconventional ways by studying biological sciences in a comprehensive manner and their applications and uses in society from a theoretical, scientific, and applied perspective. Preparing scientific cadres at the primary and higher levels to work in the medical, health, agricultural, food, oil, and pharmaceutical industries and biological branches. The department also aims to provide an educational environment that encourages the presentation of new ideas and the acquisition of scientific techniques by its students in the use of devices and equipment that can be used in their theoretical and applied studies and provide them with academic and applied information about biological sciences and their various trends and specializations, and research and study everything new in biological sciences and keep pace with scientific developments in this field and include them in the prescribed curricula. It also contributes to building a generation capable of providing innovative solutions to scientific and social problems. In addition to encouraging students to transform their research ideas into commercial projects by providing business incubators and supporting modern technologies.

#### 2. Linking theory to application and providing institutions with qualified graduates

The Department of Biology considers that combining theoretical and practical aspects is essential for understanding scientific concepts. Therefore, this goal is enhanced by increasing the number of partnerships with industrial and research institutions, which provides students with the necessary practical training opportunities and provides state institutions and the mixed and private sectors (medical, industrial, and laboratory institutions) with primary and specialized senior cadres to work in this field to contribute to economic and social development.

#### 3. Improving the quality of scientific research and developing graduate programs

Scientific research is the axis of progress in any field. Therefore, the Department of Biology works to teach students how to design experiments, analyze results, research and study everything new in biological sciences, keep pace with scientific developments in this field, and include them in the prescribed curricula, and contribute to building a generation capable of providing innovative solutions to scientific and social problems. In addition to encouraging students to transform their research ideas into commercial projects by providing business incubators and supporting modern technologies in modern fields such as sustainable development, bioprocessing, and all medical, health, agricultural, food, oil, pharmaceutical, and biological fields.

#### 4. Enhancing creative communication skills and promoting environmental sustainability

Effective communication skills are a key element for scientists to communicate their ideas. Therefore, the curricula in the Department of Biology include training courses focused on scientific communication and presentations, which help students express their ideas clearly and effectively. In addition to incorporating sustainability concepts into the curricula, and encouraging research that supports the environment and sustainable practices, to ensure the environment for future generations.

5. Enhancing ethical awareness and preparing a generation of scientists committed to the highest standards

The Department of Biology seeks to promote the values of scientific ethics, as workshops are organized on scientific ethics and case studies, which illustrate the importance of adhering to these principles during academic and scientific activities. Students' commitment to ethical and professional standards is essential to ensure their ability to contribute to scientific progress responsibly.

6. Encouraging effective teamwork and promoting international cooperation

Teamwork is essential in the academic environment. Therefore, professors in the Department of Biology design group projects as part of the curricula to enhance the skills of cooperation among students and achieve common goals effectively. In addition to establishing partnerships with other universities to exchange experiences and scientific research, which contributes to updating curricula and enhancing the quality of education.

7. Introducing Artificial Intelligence and Nanotechnology

Integrating the fields of artificial intelligence and nanotechnology into the curricula ensures that students are aware of the latest scientific developments in the fields of molecular diagnostics, nanotechnology, and the use and analysis of digital data. Sub-specializations or elective courses can be created that focus on these modern technologies.

## **4. Student Learning Outcomes**

Students with a Bachelor's degree in biology are expected to have acquired the following skills:

- 1- Ability to Identify Scientific Problems: Students are able to identify, define, and clearly formulate various scientific problems, using appropriate scientific concepts.
- 2- Application of Scientific Knowledge: Students are able to apply scientific principles to solve field problems and demonstrate the ability to provide effective solutions that meet community needs.
- 3- Conducting Scientific Experiments: Students acquire the skills to design and conduct scientific experiments with quality assurance, and are able to accurately analyze and interpret results.
- 4- Effective Communication Skills: Students are able to communicate fluently and effectively, both orally and in writing, with various groups and administrative levels.
- 5- Ethical and Professional Awareness: Students possess a deep understanding of ethical and professional responsibilities and demonstrate a clear commitment to society in all their scientific activities.
- 6- Teamwork: Students are able to work effectively within scientific teams, with the ability to define common goals, plan activities, and manage risks.
- 7- Keeping Up with Technological Developments: Students acquire the skills necessary to keep pace with developments in modern technologies, enabling them to effectively use technological tools in their fields.

## 5. Academic Staff:

No.	Name	Academic degree	Mobile	E mail
1.	Dr. Hiyam Adel Al-Taie	Professor	7719629874	<a href="mailto:hiyamaltai@uomosul.edu.iq">hiyamaltai@uomosul.edu.iq</a>
2.	Dr. Amjad Abdulhadi Mohamed	Professor	7701679696	<a href="mailto:amjsbio33@uomosul.edu.iq">amjsbio33@uomosul.edu.iq</a>
3.	Dr. Rayan Mazin Faisal	Professor	7736834730	<a href="mailto:rayanmazin@uomosul.edu.iq">rayanmazin@uomosul.edu.iq</a>
4.	Dr. Alaa Hussein Ali	.Asst. prof	7740868507	<a href="mailto:alaasbio63@uomosul.edu.iq">alaasbio63@uomosul.edu.iq</a>
5.	Dr. Amira Mahmud Muhamad	Professor	7708310511	<a href="mailto:amesbio5@uomosul.edu.iq">amesbio5@uomosul.edu.iq</a>
6.	Dr. Muhammad Salahuddin	Professor	7710708506	<a href="mailto:muhammed.Salah@uomosul.edu.iq">muhammed.Salah@uomosul.edu.iq</a>
7.	Dr. Munif Abdel Mustafa	Professor	7705954233	<a href="mailto:munsbio6@uomosul.edu.iq">munsbio6@uomosul.edu.iq</a>
8.	Dr. Janan Abdul Khaleq Saeed	Professor	7740935530	<a href="mailto:janan.saeed@uomosul.edu.iq">janan.saeed@uomosul.edu.iq</a>
9.	Dr. Israa Ghanem Hazem	Professor	7718402970	<a href="mailto:esrsbio19@uomosul.edu.iq">esrsbio19@uomosul.edu.iq</a>
10.	Dr. Mona Hussein Ali	Professor	7701648444	<a href="mailto:munsbio12@uomosul.edu.iq">munsbio12@uomosul.edu.iq</a>
11.	Dr. Mohsen Ayoub Issa	Professor	7707488968	<a href="mailto:muhsbio13@uomosul.edu.iq">muhsbio13@uomosul.edu.iq</a>
12.	Dr. Mahmud Ismail Muhamad	Professor	7705274073	<a href="mailto:mahjsbio74@uomosul.edu.iq">mahjsbio74@uomosul.edu.iq</a>
13.	Dr. Mahmoud Abdel-Jabbar	Professor	7701871611	<a href="mailto:mahtsbio30@uomosul.edu.iq">mahtsbio30@uomosul.edu.iq</a>
14.	Dr. Owayes Muwaffaq Hamed	Professor	7702096361	<a href="mailto:owsbio31@uomosul.edu.iq">owsbio31@uomosul.edu.iq</a>
15.	Dr. Raeed Salim Alsafar	Professor	7701634647	<a href="mailto:raesbio2@uomosul.edu.iq">raesbio2@uomosul.edu.iq</a>
16.	Dr. Muntaha Mahmoud Daod	Professor	7740870097	<a href="mailto:muntsbio17@uomosul.edu.iq">muntsbio17@uomosul.edu.iq</a>
17.	Dr. Bushra Hassan Saeed	Professor	7730255508	<a href="mailto:bushra.hasan@uomosul.edu.iq">bushra.hasan@uomosul.edu.iq</a>
18.	Dr. Hadeel Ahmed Khalaf	Professor	7701849440	<a href="mailto:hadsbio43@uomosul.edu.iq">hadsbio43@uomosul.edu.iq</a>
19.	Dr. Faten Nouri Abdel	Professor	7722064801	<a href="mailto:fatinnuri@uomosul.edu.iq">fatinnuri@uomosul.edu.iq</a>
20.	Dr. Firas Hamid Khudair	Professor	7718629224	<a href="mailto:hameedfiras2014@yahoo.com">hameedfiras2014@yahoo.com</a>
21.	Dr. Anmar Ahmed Daoud	Professor	7701614859	<a href="mailto:anmaraltaee1978@uomosul.edu.iq">anmaraltaee1978@uomosul.edu.iq</a>
22.	Dr. Ghada Abdel Razzaq	Professor	7701650864	<a href="mailto:kadsbio32@uomosul.edu.iq">kadsbio32@uomosul.edu.iq</a>
23.	Dr. Maha Akram Muhammad	Professor	7703000183	<a href="mailto:mahaalrejaboo2@uomosul.edu.iq">mahaalrejaboo2@uomosul.edu.iq</a>
24.	Dr. Fatima Qasim Muhammad	Professor	7702050053	<a href="mailto:fats25@uomosul.edu.iq">fats25@uomosul.edu.iq</a>
25.	Dr. Hoda Younis Qassem	Asst. prof.	7518096344	<a href="mailto:hudayounis1991@uomosul.edu.iq">hudayounis1991@uomosul.edu.iq</a>
26.	Dr. Muhamad Hussein Mikael	Asst. prof.	7730073775	<a href="mailto:mohsbio16@uomosul.edu.iq">mohsbio16@uomosul.edu.iq</a>
27.	Dr. Waad Sabri Shafer	Asst. prof.	7710701440	<a href="mailto:wadsbio20@uomosul.edu.iq">wadsbio20@uomosul.edu.iq</a>
28.	Dr. Najah Subhi Nayef	Asst. prof.	7738495851	<a href="mailto:najahsobhi@gmail.com">najahsobhi@gmail.com</a>
29.	Dr. Warqa Saeed Qasim	Asst .prof.	7704485933	<a href="mailto:warsbio22@uomosul.edu.iq">warsbio22@uomosul.edu.iq</a>
30.	Dr. Sinai Adbulla Ali	Asst .prof.	7701871500	<a href="mailto:sensbio23@uomosul.edu.iq">sensbio23@uomosul.edu.iq</a>
31.	Dr. Nihal Ezzat Gomaa	Asst .prof.	7703309983	<a href="mailto:nehsbio34@uomosul.edu.iq">nehsbio34@uomosul.edu.iq</a>
32.	Dr. Marwa Hashim Dawood	Asst .prof.	7704398169	<a href="mailto:maraadaood@uomosul.edu.iq">maraadaood@uomosul.edu.iq</a>
33.	Dr. Shaker Ghazi Girgis	Asst .prof.	7703003849	<a href="mailto:shksbio48@uomosul.edu.iq">shksbio48@uomosul.edu.iq</a>
34.	Dr .Anfal Moayad	Asst .prof.	7704505508	<a href="mailto:anfalgalal@uomosul.edu.iq">anfalgalal@uomosul.edu.iq</a>
35.	Dr. Elham Abdullah Ali	Asst .prof.	7702029249	<a href="mailto:ilhsbio41@uomosul.edu.iq">ilhsbio41@uomosul.edu.iq</a>
36.	Dr. Wasn Saleh Hussein Ali	Asst .prof.	7716960191	<a href="mailto:wassbio54@uomosul.edu.iq">wassbio54@uomosul.edu.iq</a>
37.	Dr. Abdel Moneim Muhamad	Asst .prof.	7701640127	<a href="mailto:abmsbio38@uomosul.edu.iq">abmsbio38@uomosul.edu.iq</a>
38.	Dr. Rojan Ghanem Mohamed	Asst .prof.	7503388881	<a href="mailto:rojsbio57@uomosul.edu.iq">rojsbio57@uomosul.edu.iq</a>
39.	Dr. Badia Abdel Razzaq Jamal	Asst. prof.	7703857441	<a href="mailto:badia.jamal@uomosul.edu.iq">badia.jamal@uomosul.edu.iq</a>
40.	Dr. Aws Ibrahim Suleiman	Asst. prof.	7503478899	<a href="mailto:awssbio61@uomosul.edu.iq">awssbio61@uomosul.edu.iq</a>
41.	Dr. Khansa Muhammad Yunus	Asst. prof.	7738564325	<a href="mailto:kansbio50@uomosul.edu.iq">kansbio50@uomosul.edu.iq</a>
42.	Dr. Abeer Atallah Ayed	Asst. prof.	7718037256	<a href="mailto:abesbio53@uomosul.edu.iq">abesbio53@uomosul.edu.iq</a>
43.	Dr. Thaer Muhammad Hassan	Asst. prof.	7702043322	<a href="mailto:thasbio42@uomosul.edu.iq">thasbio42@uomosul.edu.iq</a>

44.	Dr. Alaa Hussein Taha	Asst. prof.	7735865405	<a href="mailto:allhusain@uomosul.edu.iq">allhusain@uomosul.edu.iq</a>
45.	Dr. Angham Jabbar Alwan	Asst. prof.	7517014948	<a href="mailto:Anksbio94@uomosul.edu.iq">Anksbio94@uomosul.edu.iq</a>
46.	Dr. Alfat Tahseen Yassin	Asst. prof.	7739671560	<a href="mailto:alfsbio76@uomosul.edu.iq">alfsbio76@uomosul.edu.iq</a>
47.	Dr. Enas Abdel Moneim	Asst. prof.	7701696479	<a href="mailto:inasamuneem@uomosul.edu.iq">inasamuneem@uomosul.edu.iq</a>
48.	Dr .Jihan Moafaq	Asst. prof.	7703856148	<a href="mailto:jehsbio88@uomosul.edu.iq">jehsbio88@uomosul.edu.iq</a>
49.	Dr . Nihal Younis Mohammad	Asst .prof.	7710020304	<a href="mailto:nehysbio40@uomosul.edu.iq">nehysbio40@uomosul.edu.iq</a>
50.	Dr. Zakaria Sami Abdel Razaq	Asst. prof.	7725378328	<a href="mailto:zaksbio67@uomosul.edu.iq">zaksbio67@uomosul.edu.iq</a>
51.	Dr. Mai Taha Hamed	Lecturer	7740871817	<a href="mailto:mayasbio44@uomosul.edu.iq">mayasbio44@uomosul.edu.iq</a>
52.	Dr .Azhar Heseen	Lecturer	7733418781	<a href="mailto:azhar.huseen@uomosul.edu.iq">azhar.huseen@uomosul.edu.iq</a>
53.	Dr. Abeer Ali Kazem	Lecturer	7701784856	<a href="mailto:abesbio84@uomosul.edu.iq">abesbio84@uomosul.edu.iq</a>
54.	Dr. Sahar Salem Poutros	Lecturer	7701781030	<a href="mailto:saharsalim@uomosul.edu.iq">saharsalim@uomosul.edu.iq</a>
55.	Dr. Ali Abd Ali	Lecturer	7739636434	<a href="mailto:alialrawi1975@uomosul.edu.iq">alialrawi1975@uomosul.edu.iq</a>
56.	Dr Rasha Azeez	Lecturer	7701622754	<a href="mailto:rashaziz@uomosul.edu.iq">rashaziz@uomosul.edu.iq</a>
57.	Dr. Iman Mahmoud Khadr	Lecturer	7729796954	<a href="mailto:imanalkhayyat@uomosul.edu.iq">imanalkhayyat@uomosul.edu.iq</a>
58.	Dr. Heba Khaled Mahmoud	Lecturer	7518607963	<a href="mailto:hebsbio59@uomosul.edu.iq">hebsbio59@uomosul.edu.iq</a>
59.	Dr. Sahar Luqman Hamed	Lecturer	7730313632	<a href="mailto:saharalsaleem49@gmail.com">saharalsaleem49@gmail.com</a>
60.	Dr. Hala Mazhar Yaqoub Al-	Lecturer	7700335118	<a href="mailto:halsbio105@uomosul.edu.iq">halsbio105@uomosul.edu.iq</a>
61.	Dr. Muowafaq Khalil Hassan	Lecturer	7719742965	<a href="mailto:mufsbio62@uomosul.edu.iq">mufsbio62@uomosul.edu.iq</a>
62.	Dr. Zahraa Khairdin Moheddin	Lecturer	7722118071	<a href="mailto:zahraa.khirialdeen@uomsul.edu.iq">zahraa.khirialdeen@uomsul.edu.iq</a>
63.	Dr. Sahira Idris Hamid	Lecturer	7715531518	<a href="mailto:sahira.scp5@student.uomosul.edu.iq">sahira.scp5@student.uomosul.edu.iq</a>
64.	Dr. Heba Hadi Taha Ahmed	Lecturer	7740908465	<a href="mailto:hibahadi@uomosul.edu.iq">hibahadi@uomosul.edu.iq</a>
65.	Dr. Shafak Tariq Burhan	Lecturer	7718639195	<a href="mailto:shasbio81@uomosul.edu.iq">shasbio81@uomosul.edu.iq</a>
66.	Dr. Naglaa Tariq Hassan	Lecturer	7702028948	<a href="mailto:najtsbio79@uomosul.edu.iq">najtsbio79@uomosul.edu.iq</a>
67.	Dr. Muthafar Sideq Abdulkareem	Lecturer	7702005696	<a href="mailto:muthaffarinsa@uomosul.edu.iq">muthaffarinsa@uomosul.edu.iq</a>
68.	Dr. Muhammad Mahdi Saleh	Lecturer	7739653089	<a href="mailto:mdsbangalore82@gmail.com">mdsbangalore82@gmail.com</a>
69.	Dr. Muhammad Abdel Razzaq	Lecturer	7719827977	<a href="mailto:mohrsbio122@uomosul.edu.iq">mohrsbio122@uomosul.edu.iq</a>
70.	Dr. Younis Ibrahim Muhamad	Lecturer	7518096729	<a href="mailto:yonsbio127@uomosul.edu.iq">yonsbio127@uomosul.edu.iq</a>
71.	Dr. Fulk Abdul Hafez Khattab	Lecturer	7701713200	<a href="mailto:fulsbio80@uomosul.edu.iq">fulsbio80@uomosul.edu.iq</a>
72.	Dr. Ghaida Muhamad Abdel Aziz	Lecturer	7701718672	<a href="mailto:kaysbio106@uomosul.edu.iq">kaysbio106@uomosul.edu.iq</a>
73.	Dr. Yasser AbdulAmir Abdullah	Lecturer	7702084007	<a href="mailto:yasir.abdulameer@uomosul.edu.iq">yasir.abdulameer@uomosul.edu.iq</a>
74.	Dr. Rana Waad Allah Yunus	Lecturer	7738523981	<a href="mailto:ranbio126@uomosul.edu.iq">ranbio126@uomosul.edu.iq</a>
75.	Dr. Raja Abdul Rahman Hasan	Lecturer	7722021979	<a href="mailto:rajsbio85@uomosul.edu.iq">rajsbio85@uomosul.edu.iq</a>
76.	Dr. Mohamed Abdel Ghani	Lecturer	7728429425	<a href="mailto:mohasbio117@uomosul.edu.iq">mohasbio117@uomosul.edu.iq</a>
77.	Dr. Huda Waleed Hadi	Lecturer	7502166323	<a href="mailto:hudsbio114@uomosul.edu.iq">hudsbio114@uomosul.edu.iq</a>
78.	Dr. Iman Muhammad Taher	Lecturer	7703041194	<a href="mailto:imansbio116@uomosul.edu.iq">imansbio116@uomosul.edu.iq</a>
79.	Dr. Sura Mahmoud Younis	Lecturer	7705098812	<a href="mailto:suramahmoud@uomosul.edu.iq">suramahmoud@uomosul.edu.iq</a>
80.	Dr. Ali Ahmed Jassim	Lecturer	7702092992	<a href="mailto:alisbio107@uomosul.edu.iq">alisbio107@uomosul.edu.iq</a>
81.	Dr .Manar Khuder Ahmad	Lecturer	7740036842	<a href="mailto:Manarkha@uomosul.edu.iq">Manarkha@uomosul.edu.iq</a>
82.	Dr. Rawaa Ahmad Khalaf	Lecturer	7706996410	<a href="mailto:rawaa.aswad.18@uomosul.edu.iq">rawaa.aswad.18@uomosul.edu.iq</a>
83.	Naglaa Abdullah Fathi	Asst .prof.	7701794606	<a href="mailto:najasbio75@uomosul.edu.iq">najasbio75@uomosul.edu.iq</a>
84.	Hanan Sami Nouri	Asst .prof.	7701848118	<a href="mailto:hanan.sami@uomosul.edu.iq">hanan.sami@uomosul.edu.iq</a>
85.	Nagwa Mahfouz Ahmed	Lecturer	7746967098	<a href="mailto:najwa.alzobaidy@uomosul.edu.iq">najwa.alzobaidy@uomosul.edu.iq</a>
86.	Israa Munib Muhammad Ali	Lecturer	7736977247	<a href="mailto:israsbio83@uomosul.edu.iq">israsbio83@uomosul.edu.iq</a>
87.	Iman Samir Muhammad	Lecturer	7701667878	<a href="mailto:imasbio91@uomosul.edu.iq">imasbio91@uomosul.edu.iq</a>
88.	Abeer Ahmed Mahmoud	Lecturer	7736977214	<a href="mailto:abeerahmed@uomosul.edu.iq">abeerahmed@uomosul.edu.iq</a>
89.	Ahmad Talal Hikmat	Lecturer	7713395967	<a href="mailto:ahmsbio110@uomosul.edu.iq">ahmsbio110@uomosul.edu.iq</a>

90.	Amina Ghanem Omar Ali	Lecturer	7701656303	<a href="mailto:amebio115@uomosul.edu.iq">amebio115@uomosul.edu.iq</a>
91.	Aisha wameedh	Lecturer	7703859333	<a href="mailto:shsbio124@uomosul.edu.iq">shsbio124@uomosul.edu.iq</a>
92.	Enas Qusay Douri	Lecturer	7717093307	<a href="mailto:inasbio99@uomosul.edu.iq">inasbio99@uomosul.edu.iq</a>
93.	Hadeel Tariq Saadoon	Lecturer	7723421667	<a href="mailto:hadeeltariq@uomosul.edu.iq">hadeeltariq@uomosul.edu.iq</a>
94.	Ashwaq Hazem Najm	Lecturer	7705591602	<a href="mailto:ashsbio102@uomosul.edu.iq">ashsbio102@uomosul.edu.iq</a>
95.	Ammar Ghanem Amin	Asst. Lec.	7703846043	<a href="mailto:amrksbio100@uomosul.edu.iq">amrksbio100@uomosul.edu.iq</a>
96.	Najwa Muhammad Farhan	Asst. Lec.	7718229929	<a href="mailto:najsbio119@uomosul.edu.iq">najsbio119@uomosul.edu.iq</a>
97.	Maha Khalaf Ali	Asst. Lec.	7705916303	<a href="mailto:maha.ali@uomosul.edu.iq">maha.ali@uomosul.edu.iq</a>
98.	Heba Fares Ahmed	Asst. Lec.	7508312773	<a href="mailto:hiba.fares@uomosul.edu.iq">hiba.fares@uomosul.edu.iq</a>
99.	Zaid Tahseen Ali	Asst. Lec.	7728208964	<a href="mailto:zaid.qaddawi@uomosul.edu.iq">zaid.qaddawi@uomosul.edu.iq</a>
100.	Azza Adil Rasheed	Asst. Lec.	7701655263	<a href="mailto:azza.altaii@uomosul.edu.iq">azza.altaii@uomosul.edu.iq</a>
101.	Manar Fawzi Thanoon	Asst. Lec.	7703844865	<a href="mailto:manar-fawzi@tu.edu.iq">manar-fawzi@tu.edu.iq</a>
102.	Enas Waad Obaid	Asst. Lec.	7507229838	<a href="mailto:enass.scp23@student.uomosul.edu.iq">enass.scp23@student.uomosul.edu.iq</a>
103.	Safa Rafe Abdul-Ihah	Asst. Lec.	7725381392	<a href="mailto:safarea2020@yahoo.com">safarea2020@yahoo.com</a>
104.	Sahar Tatir Fadhil	Asst. Lec.	7703384280	<a href="mailto:sahar_tahir@uomosul.edu.iq">sahar_tahir@uomosul.edu.iq</a>
105.	Zahraa Khalid Nafee	Asst. Lec.	7702817462	<a href="mailto:Zahraa.alkhero@uomosul.edu.iq">Zahraa.alkhero@uomosul.edu.iq</a>
106.	Zahra Jasim Ramadan	Asst. Lec.	7708100190	<a href="mailto:zahra.jasim@uomosule.edu.iq">zahra.jasim@uomosule.edu.iq</a>
107.	Safwan Jasim Sultan	Asst. Lec.	7705116997	<a href="mailto:safwan.jasim@uomosul.edu.iq">safwan.jasim@uomosul.edu.iq</a>
108.	Aziz Tamo Goro	Asst. Lec.	7518815573	<a href="mailto:Aziz.tamo@uomosul.edu.iq">Aziz.tamo@uomosul.edu.iq</a>
109.	Fadia Nooraldeen Saeed	Asst. Lec.	7745531159	<a href="mailto:jabalarfadya@uomosul.edu.iq">jabalarfadya@uomosul.edu.iq</a>
110.	Mustafa Taha Daham	Asst. Lec.	7740954711	<a href="mailto:mustafataha@uomosul.edu.iq">mustafataha@uomosul.edu.iq</a>
111.	Nooralhuda Ahmad Mohamed	Asst. Lec.	7739013283	<a href="mailto:nooralhudaam@uomosul.edu.iq">nooralhudaam@uomosul.edu.iq</a>
112.	Ashraf Mohammed Hamed	Asst. Lec.	7768846776	<a href="mailto:ashraf.salim@uomosul.edu.iq">ashraf.salim@uomosul.edu.iq</a>
113.	Mohammed Abdul-Razzaq	Asst. Lec.	7705992932	<a href="mailto:mohammad.hamodi@uomosul.edu.iq">mohammad.hamodi@uomosul.edu.iq</a>
114.	Zeina Zakaria Idris	Asst. Lec.	7763599177	<a href="mailto:zeena.almashani@uomosul.edu.iq">zeena.almashani@uomosul.edu.iq</a>
115.	Alia Nadhir Ahmed Ali Bek	Asst. Lec.	7703394803	<a href="mailto:allyaa.ali@uomosul.edu.iq">allyaa.ali@uomosul.edu.iq</a>
116.	Hiba Ahmed Mohammad Salih	Asst. Lec.	7774034950	<a href="mailto:hiba.ahmed.m@uomosul.edu.iq">hiba.ahmed.m@uomosul.edu.iq</a>
117.	Amir Rajab Mahmood	Asst. Lec.	7701611001	<a href="mailto:aamer.rajab@uomosul.edu.iq">aamer.rajab@uomosul.edu.iq</a>
118.	Soheer Taha Daood	Asst. Lec.	7771769726	<a href="mailto:soher.taha@uomosul.edu.iq">soher.taha@uomosul.edu.iq</a>

## 6. Credits, Grading and GPA

### **Credits**

Mosul 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	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	90 - 100	Outstanding Performance
	B - Very Good	80 - 89	Above average with some errors
	C - Good	70 - 79	Sound work with notable errors
	D - Satisfactory	60 - 69	Fair but with major shortcomings
	E - Sufficient	50 - 59	Work meets minimum criteria
Fail Group (0 - 49)	FX – Fail	(45-49)	More work required but credit awarded
	F – Fail	(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:

$$CGPA = [ (1st^{th} \text{ module score} \times ECTS) + (2nd^{th} \text{ module score} \times ECTS) + \dots ] / 24$$

## 7. Curriculum/Modules

Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio-1101	General Zoology	108	92	200	8.00	C	
Bio-1102	Analytical Chemistry	108	92	200	8.00	C	
Sci-101	General Mathematics	33	17	50	2.00	B	
Bio-1103	Biophysics	108	92	200	8.00	c	
UOM104	Democracy and Human Rights	33	17	50	2.00	B	
UOM101	Arabic Language	45	5	50	2.00	B	

**Semester 2 | 30 ECTS | 1 ECTS = 25 hrs**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio-1204	General Botany	108	92	200	8.00	C	
Bio-1205	Organic Chemistry	108	92	200	8.00	C	
Bio-1206	Biostatistics	63	62	125	5.00	c	
Bio-1207	Safety and bioscurity	63	37	100	4.00	c	
UOM103	Computer Science	63	12	75	3.00	B	
UOM102	English Language	45	5	50	2.00	B	

**Semester 3 | 30 ECTS | 1 ECTS = 25 hrs**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio-2308	Entomology I	78	47	125	5.00	C	
Bio-2309	Plant Anatomy	78	47	125	5.00	C	
Bio-23010	Invertebrates	79	71	150	6.00	C	
Bio-23011	Biochemistry I	78	47	125	5.00	C	
Bio-23012	Microbiology I	78	47	125	5.00	C	
UOM2050	Crimes of the Baath party	33	17	50	2.00	B	
UOM2012	Arabic Language 2	33	17	50	2.00	B	UOM101

**Semester 4 | 30 ECTS | 1 ECTS = 25 hrs**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio-24113	Entomology II	78	22	100	4.00	C	Bio-2308
Bio-24114	Plant Taxonomy	78	22	100	4.00	C	Bio-2309
Bio-24115	Parasitology	78	22	100	4.00	C	Bio-23010
Bio-24116	Biochemistry II	78	22	100	4.00	C	Bio-23011
Bio-24117	Microbiology II	78	47	125	5.00	C	Bio-23012
Bio-24018	Plant Groups	78	22	100	4.00	C	
UOM2032	Computer Science2	63	12	75	3.00	B	UOM103
UOM2022	English Language 2	33	17	50	2.00	B	UOM102

**Semester 5 Five/BIOLOGY | 30 ECTS | 1 ECTS = 25 hrs Five/BIOLOGY**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio1-35019	Cell Biology	78	47	125	5.00	C	
Bio1-35020	Ecology	78	47	125	5.00	C	
Bio1-35021	Biotechnology	78	47	125	5.00	C	
Bio1-35022	Mycology I	78	47	125	5.00	C	
Bio1-35023-L Bio1-35023-A	Elective (Laboratory analysis + Applied and Economic Entomology)	78	47	125	5.00	C	
Bio1-35024	Mycotoxins	78	47	125	5.00	C	

**Semester 6 Six/BIOLOGY | 30 ECTS | 1 ECTS = 25 hrs Six/BIOLOGY**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio1-36025	Plant Pathology	78	72	150	6.00	C	
Bio1-36026	Histology	78	72	150	6.00	C	
Bio1-36027-D Bio1-36027-E	Elective (Diagnostic parasite + Endocrinology)	78	72	150	6.00	C	
Bio1-36128	Pollution	64	36	100	4.00	C	Bio1-35020
Bio1-36129	Genetics	78	47	125	5.00	C	Bio1-35019
Bio1-36030	Allelopathy	63	12	75	3.00	C	

**Semester 5 Five/Microbiology | 30 ECTS | 1 ECTS = 25 hrs five/Microbiology**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio2-35019	Soil Microbiology	78	47	125	5.00	C	
Bio2-35020-L Bio2-35020-C	Elective (Laboratory Analysis + Diagnostic parasite)	78	47	125	5.00	C	
Bio2-35021	Histology	78	47	125	5.00	C	
Bio2-35022	Ecology	78	47	125	5.00	C	
Bio2-35023	Cell Biology	78	47	125	5.00	C	
Bio2-35024	Classification and Bacterial groups	78	47	125	5.00	C	

**Semester 6 Six/Microbiology | 30 ECTS | 1 ECTS = 25 hrs Six/Microbiology**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio2-36025	Water Microbiology	78	47	125	5.00	C	
Bio2-36026	Bacterial Physiology	78	47	125	5.00	C	
Bio2-36027	Animal Physiology	78	47	125	5.00	C	
Bio2-36128	Pollution	78	47	125	5.00	C	Bio2-35022
Bio2-36129	Genetics	78	47	125	5.00	C	Bio2-35023
Bio2-36030-A Bio2-36030-C	Elective (Antibiotics + Mycotoxins)	78	47	125	5.00	C	

**Semester 7 Seven/BIOLOGY | 30 ECTS | 1 ECTS = 25 hrs Seven /BIOLOGY**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio1-47031	Animal Physiology 1	79	71	150	6.00	C	
Bio1-47032	Plant Physiology 1	78	47	125	5.00	C	
Bio1-47033	Embryology	79	71	150	6.00	C	
Bio1-47034	Quantitative Genetics	79	71	150	6.00	C	
Bio1-47035	Molecular biology	78	47	125	5.00	C	
Bio1-47036	Research Methodology	33	17	50	2.00	C	

**Semester 8 Eight/BIOLOGY | 30 ECTS | 1 ECTS = 25 hrs Eight /BIOLOGY**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio1-48137	Animal Physiology 2	79	71	150	6.00	C	Bio1-47031
Bio1-48138	Plant Physiology 2	79	71	150	6.00	C	Bio1-47032
Bio1-48039	Comparative Anatomy	79	71	150	6.00	C	
Bio1-48040	Biodiversity	79	71	150	6.00	C	
Bio1-48041	Immunology	78	22	100	4.00	C	
Bio1-48142	Research Project	33	17	50	2.00	C	Bio1-47036

**Semester 7 Seven/MICROBIOLOGY| 30 ECTS | 1 ECTS = 25 hrs Seven /Microbiology**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio2-47031	Immunology	79	71	150	6.00	C	
Bio2-47032	pathogenic Bacteriology	79	71	150	6.00	C	
Bio2-47033	Food Microbiology	78	47	125	5.00	C	
Bio2-47034	Mycology	78	47	125	5.00	C	
Bio2-47035	Enzymology	79	71	150	6.00	C	
Bio2-47036	Research Methodology	33	17	50	2.00	C	

**Semester 8 Eight/MICROBIOLOGY| 30 ECTS | 1 ECTS = 25 hrs Eight/Microbiology**

Code	Module	SSWL	USSWL	SWL	ECTS	Type	Pre-request
Bio2-48037	Microbial Genetics	79	71	150	6.00	C	
Bio2-48038	Virology	79	71	150	6.00	C	
Bio2-48139	Industrial Microbiology	79	71	150	6.00	C	Bio2-47033
Bio2-48140	Fungal Taxonomy	78	47	125	5.00	C	Bio2-47034
Bio2-48041	Molecular biology	78	47	125	5.00	C	
Bio2-48142	Research Project	33	17	50	2.00	C	Bio2-47036

## **8. Contact**

**Head Department:**

**Prof. Dr. Amjad Abdul-Hadi Mohammed**

**Iraq- Mosul- University of Mosul- College of Science- Biology Dept.**

**Mobile: 07731313582**

**Email: [amjsbio33@uomosul.edu.iq](mailto:amjsbio33@uomosul.edu.iq)**

**Director of the Department:**

**Prof. Dr. Hadeel A. khalaf**

**Iraq- Mosul- University of Mosul- College of Science- Biology Department**

**Mobile No. 07701849440**

**Email: [hadsbio43@uomosul.edu.iq](mailto:hadsbio43@uomosul.edu.iq)**

**Asst. Prof. Dr. Alaa Hussein Ali**

**Iraq- Mosul- University of Mosul- College of Science- Biology Department**

**Mobile No. 07740868507**

**Email: [alaasbio63@uomosul.edu.iq](mailto:alaasbio63@uomosul.edu.iq)**

---