Ministry of Higher Education and Scientific Research Supervision and Scientific Evaluation Body Quality Assurance and Academic Accreditation Department

University: Al-Qasim Green University Faculty/Institute: Biotechnologies

Scientific Department: Biotechnological Sciences Date of File Completion: February 28, 2024

Signatures:

Department Head: Prof. Dr. Ahmed Obeid Hussein Scientific Assistant: Prof. Dr. Haider Shukur Abis

Date: February 28, 2024

Reviewed by:

Quality Assurance and University Performance Division

Name of the Quality Assurance and University Performance Division Manager: Mr. Murtada

Mohammed Jawad Date: February 28, 2024

Endorsement by the Dean:

Assoc. Prof. Dr. Muhannad Jawad Kadhim

Word from the Head of the Biotechnological Sciences Department:

The Biotechnological Sciences Department was established in 2012 within the Faculty of Biotechnologies, and in 2018, postgraduate studies/Masters were introduced. Our department is characterized by having highly competent teaching staff working in unity. What distinguishes our team is their harmony, love, and cooperation, as they work diligently and devotedly to assist students and encourage them to elevate their university education level, which will, in turn, reflect on their professional performance in their future workplaces. Students are the focus and outcome of the educational process, and our department, with all its staff, strives to prepare them to face life's challenges currently and in the future. From this principle, our department works on providing graduates with theoretical knowledge and scientific experiences that meet the labor market needs. The Department of Biotechnological Sciences aims, according to the strategic plan, to support scientific research, spread the culture of research, creativity, and innovation, and encourage competent faculty members and students to take their role in building scientific and practical knowledge and leading the community.

Dr. Ahmed Obeid Hussein 2024

Academic Program Description:

This academic program description provides a summary of the key characteristics of the program and the expected learning outcomes for students, demonstrating whether they have maximized the available opportunities. It is accompanied by a description of each course within the program.

Educational Institution:

Al-Qasim Green University

Scientific Department / Center: Medical Biotechnologies

Name of the Academic or Professional Program: ABET

Name of the Final Degree: Biotechnologies

Study System: Annual/Courses/Others Semester

Accreditation Program:

Other External Influences:

Training courses and workshops, seminars, field visits, hosting experts in the same specialization, workshops, conferences.

Date of Description Preparation: February 28, 2024

Academic Program Objectives:

- 1. Prepare scientific staff and supply the labor market with its needs of specialists in biotechnology fields such as health, agriculture, industry, defense, education, and scientific research among others.
- 2. Encourage scientific research and provide students with basic skills in biotechnologies and applications.
- 3. Encourage teaching staff to participate in seminars, courses, and scientific conferences inside and outside Iraq to provide globally updated information to students in line with scientific developments worldwide.
- 4. Supply the community with primary degree (Bachelor) holders currently and higher

degrees (Masters and PhD) in the future.

- 5. Contribute to solving scientific problems contributing to the country's development plans.
- 6. Enrich research projects for the final stage and develop the spirit of research, deduction, and competition in annual conferences.
- 7. Maintain the environment and dispose of wastes using biotechnological means and search for alternative energy sources.
- 8. Supply the community with qualified graduates to work as researchers in various research fields that keep pace with scientific progress.
- 9. The department aims to apply scientific knowledge in production and solve health problems and also deal with microorganisms in medical, pharmaceutical, and immunological fields and gene therapy using genetic engineering techniques.
- 10. Graduate students primarily directed to fill the needs of various job opportunities in many scientific institutions, ministries, and research centers.

The detailed content follows a similar structure for learning outcomes, teaching methods, and assessment techniques, as well as the complete program structure including courses and their learning outcomes.

in the field of Biotechnologies, provide the academic and scientific community with expertise and applications in this area, and apply an educational system aimed at developing the practical scientific abilities of individuals interested in the field of biotechnologies.

Cognitive Objectives

- C1: Impart the necessary scientific knowledge to keep pace with the rapid scientific advancement in Biotechnologies.
- C2: Supply the academic and scientific community with expertise and practical applications in this field.
- C3: Implement an educational system aimed at enhancing the scientific practical skills of those interested in Biotechnologies.

Specialized Skills Objectives of the Program

- S1: Function in various medical, industrial, agricultural, and environmental fields.
- S2: Engage in security and military sectors.
- S3: Work as researchers in different Biotechnologies specializations.

Study Stage	Course Code	Course Name	Credit Hours
First Year / First Semester	BIO101	General Biology 1	3
First Year / First	CHEM101	Analytical	4