



DEPARTMENT OF BIOLOGICAL SCIENCES

BSc in Cell and Molecular Biology MSc & PhD in Molecular Life Sciences

Overview

The Department of Biological Sciences at Khalifa University has the mandate of promoting excellence in teaching and research in the life sciences, thus catering to the strategic mission of the university, Emirate of Abu Dhabi and the UAE. The department is composed of highly qualified and internationally trained faculty members excelling in research and teaching in different aspects of biological sciences.

The department hosts the BSc in Cell and Molecular Biology degree program, as well as graduate programs (combined MSc and PhD) in Molecular Life Sciences. The BSc program will graduate highly qualified future scientists and leaders in the field of life sciences that can either start their careers directly or continue their education as graduate students in various life science disciplines or post-graduate Medical Doctor (MD) programs. The MSc and PhD in Molecular Life Sciences programs contribute to Khalifa University's desire to become a center of research in the region and beyond. These programs will graduate students who are critical thinkers with the ability to use their scientific knowledge to solve problems in life sciences, and to effectively communicate complex information to various stakeholders.

Furthermore, the Department of Biological Sciences aims to be a strategic partner and interdisciplinary bridge between the various departments at Khalifa University to lead key research activities and enable excellence in life science research. The department will also offer collaborative opportunities, including faculty and resources, to conduct innovative research and work closely with Khalifa University's Research Centres, as well as international research partners.



Programs

The BSc in Cell and Molecular Biology and the MSc/ PhD in Molecular Life Sciences degrees are designed based on US-based programs. The goal is to equip students with a robust foundation in life sciences while providing extensive exposure to research. The programs aligns with the Abu Dhabi Economic Vision 2030 plan, contributing to the university's commitment to delivering internationally excellent education and a comprehensive student experience in science. This approach aims to produce highly skilled science professionals capable of transferring state-of-the-art technologies to priority sectors in industry, business, and government.

Careers

Graduates of the BSc in Cell and Molecular Biology can anticipate commencing promising careers in various fields within life and health sciences. Additionally, they have the option to further their education by enrolling in post-graduate Medical Doctor (MD) programs or pursuing graduate studies in life sciences. Notably, our department offers MSc and PhD programs in Molecular Life Sciences. We foresee a significant number of our graduates choosing to advance their education at KU as graduate students in these programs.

Potential Employers

- M42 Global Tech Enabled Healthcare Company
- Biogenix G42 Health company
- Hayat Biotech
- Hospitals such as Cleveland Clinic, Sheikh Shakhbout Medical City, Sheikh Khalifa Medical City (SKMC), Imperial College London Diabetes Center
- Consulting companies; ex: McKinsey, BCG, Bain & Company, Deloitte
- General Electric: GE Middle East
- Pure Health
- UAE offices of well known international pharmaceutical companies (GSK, Pfizer, Roche, AstraZeneca. etc.)
- Julphar Gulf Pharmaceutical Industries Manufacturers
- Central Veterinary Research Laboratory
- Technology Innovation Institute
- Healthplus diabetes & endocrinology center
- Various local and international universities as research assistants
- Schools - as teachers (might require further certification)
- Police forensic labs

Some of the courses that students will take in the BSc in Cell & Mol. Biology program:

General Chemistry	Organic Chemistry	Analytical Chemistry	Biochemistry
Applied Statistics	General Biology	Genetics	Microbiology
Cell Biology	Physiology	Development Biology	Immunology
Bioinformatics	Molecular Cell Biology	Internship	Senior Research Projects

Some of the courses in the MSc and PhD in Molecular Life Sciences:

Molecular Life Sciences Laboratory Rotation	Research Methods in Science	Advanced Techniques in Molecular Life Sciences
Advanced Biotechnology	Advanced Protein Biochemistry	Graduate Seminars
Molecular Endocrinology and Metabolic Diseases	Clinical Microbiology	Drug Discovery and Delivery
Virology	Cell Signaling and Cancer Biology	Molecular Genetics and Genome Technologies