



### ***After Graduation***

A bachelor of science in Biology opens the door to many career options. Some continue into the top medical schools in Lebanon or abroad. Or they can pursue graduate degrees and enter the field of research and academia.

Having a degree in Biology allows students to unify their understanding of the life sciences and its methodologies and apply it to other disciplines, such as: **Business, Public health, Environmental Sciences or Nutrition**. This combination gives students a strong edge and better understanding of these fields.

Some students continue their focus into the biomedical field and they join pharmaceutical companies by working as researchers or sales representatives.

#### ***To learn more about the Biology Department:***

**Web** [www.aub.edu.lb/fas/biology](http://www.aub.edu.lb/fas/biology)

**Email** [biology@aub.edu.lb](mailto:biology@aub.edu.lb)



## **BIOLOGY**

### ***Undergraduate Program***

#### ***Natural Sciences***

The Biology program prepares students for advanced study and careers in research, education, and service in Biology-related disciplines. Students acquire descriptive, experimental, quantitative, and conceptual abilities spanning molecular, cellular, organismal, and ecological levels. Lecture and laboratory courses emphasize model systems, the role of evolution, diversity of living systems, hypothesis-based reasoning, and communication skills.

## **Faculty of Arts and Sciences**

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## Sample Courses

### BIOL 201/202

*General Biology I and II*

An integrated approach to the biology of organisms covering the organization of life, energy transfer through living systems, perpetuation of life, anatomy and physiology of plants animals and the diversity of life.

### BIOL 223

*Genetics*

A course that deals with the basic principles of classical and modern genetics with emphasis on the analysis of genetic material and the process at the molecular level.

### BIOL 224

*Microbiology*

A course that deals with microorganisms, especially bacteria, and in particular those of pathogenic and industrial importance.

*Biology deals with the diversity of life from evolution to understanding how nature is organized.*

*The Biology program will take you on a fascinating journey to discover the secrets of life starting on the organismal level, then to the cellular, and down to the molecular level.*



### Curriculum

The Biology program is a three year program where students complete a multitude of Biology courses while supplementing them with additional courses in basic science such as Chemistry, Physics, and Statistics.

During their sophomore year, students take two courses in General Biology, gaining basic knowledge in the major areas of biology. Once in their junior year, students complete courses in [Genetics and Biochemistry](#) giving them a more in-depth look into different subfields of biology. Finally during their last year, students further their expertise of biology by taking courses in [Microbiology](#), [Ecology](#), [Cell Biology](#) and [Plant Physiology](#).

While in the program, students acquire descriptive, experimental, quantitative, and conceptual abilities in the varying levels of biology.

### Research Opportunities

Senior Biology students have the opportunity to enroll in a Summer Undergraduate Research Course. This four credit course gives the students real hands on experience in scientific research.

Before starting the course, students listen to pitches about the different research projects our faculty members are conducting, they can then choose the research project that seems most interesting to them.

The Faculty of Arts and Science supports these research projects providing a budget to help order equipment and materials.

### Student Activities

The Biology department has a very active [Biology Student Society \(BSS\)](#). The society organizes many activities, including, the annual reception for new students, fundraising events for humane causes, trivia nights, and hiking trips.



### BIOL 252

*Ecology*

A study of organisms in relation to their biotic and abiotic environment. Dealing with population growth and regulation, species diversity, age structure, succession food chains and energy flow.

### BIOL 261

*Biology of Cancer*

The course compares the basic biology of normal versus the malignant neoplastic state with a comprehensive overview of the basic biology of cancer.

### BIOL 266

*Oceanography*

An introduction to the basic concepts of oceanography and marine science. Focusing on the chemical, physical and geological processes that affect life in oceans and on planet earth in general.