

## **Chemistry**

The Faculty of Sciences at Haigazian University offers a program leading to a Bachelor of Science degree in Chemistry.

Graduates of the Chemistry program will:

- Demonstrate an understanding of fundamental chemical concepts.
- Demonstrate knowledge of experimental approaches to solving problems of a chemical nature and have an ability to extend that knowledge to the solution of new problems.
- Apply skills of the discipline to analyze, interpret and communicate results of laboratory experiments and research.
- Demonstrate mastery of fundamental laboratory techniques in a safe and proficient manner.
- Be able to collaborate with others in order to pose and test scientific hypotheses using effective oral and written communication skills.
- Be adequately prepared for graduate study, related to the fields of chemistry or biochemistry.

To be eligible for admission to the Department of Chemistry, candidates must have satisfactorily completed the Freshman Science Program, or an equivalent program, with a grade of 70 or more in at least twelve credit hours and an average of 70 or more in the courses they have taken in the Departments of Chemistry, Physics, and Mathematics. Lebanese students must hold the Lebanese Baccalaureate, Part II (Experimental Sciences or Mathematics), or its equivalent, and should be considered by the Registrar to be eligible for admission to the Sophomore Science Class.

To be eligible for graduation with the degree of Bachelor of Science in Chemistry, a student must satisfactorily complete the prescribed program of study with a minimum of 94 credit hours after the Freshman Science Class, or its equivalent, and attain a cumulative average of 70.

### **General Education**

**(31 cr.)**

Core requirements for all HU students are listed on page 58.

### **Core Requirements**

**(61 cr.)**

BIO 201 General Biology I	4 cr.
BIO 204 Biochemistry	3 cr.
CHY 201 Chemical Principles	3 cr.
CHY 205 Introduction Chemistry Laboratory	2 cr.
CHY 211 Organic Chemistry I	3 cr.
CHY 212 Organic Chemistry II	3 cr.
CHY 213 Organic Chemistry Laboratory	2 cr.
CHY 214 Analytical Chemistry	3 cr.

CHY 215	Analytical Chemistry Laboratory	2 cr.
CHY 217	Chemical Thermodynamics	3 cr.
CHY 218	Molecular Structure and Properties	3 cr.
CHY 219	Chemical Dynamics	3 cr.
CHY 220	Physical Chemistry Laboratory	3 cr.
CHY 221	Inorganic Chemistry	3 cr.
CHY 222	Coordination Chemistry	3 cr.
CHY 225	Organic Structure Determination	4 cr.
MAT 201	Calculus and Analytic Geometry	3 cr.
MAT 202	Differential Equations	3 cr.
PHY 211	Electricity and Magnetism	3 cr.
PHY 212	Modern Physics	3 cr.
PHY 213	Electricity and Magnetism Laboratory	1 cr.
PHY 214	Modern Physics Laboratory	1 cr.