BA with a Major in Chemistry

Program Codes:
20FT0335BA

Degree Requirements

To earn a Bachelor of Arts in Liberal Arts and Sciences degree from UIC, students must complete university, college, and department degree requirements. The Department of Chemistry degree requirements are outlined below. Students should consult the College of Liberal Arts and Sciences section for additional degree requirements and college academic policies.

Code	Title	Hours
Summary of Requirements		
Required Prerequisite and Collateral Courses		16
Major Requirements		36-40
General Education and Electives to reach Minimum Total Hours		64-68
Total Hours		**120**

General Education

See General Education and Writing-in-the-Discipline in the College of Liberal Arts and Sciences section for information on meeting these requirements. Students should consult the course lists below and their advisors to determine which courses are counted toward the General Education and Writing-in-the-Discipline requirements.

Required Prerequisite and Collateral Courses

Code	Title	Hours
Required Courses		
MATH 180	Calculus I [a,b]	4
MATH 181	Calculus II [a]	4
Select one of the following sequences in physics:		8
PHYS 141	General Physics I (Mechanics) [a,c]	
PHYS 142	General Physics II (Electricity and Magnetism) [a,c]	
OR		
PHYS 131	Introductory Physics for Life Sciences I [a]	
PHYS 132	Introductory Physics for Life Sciences II [a]	
Total Hours		**16**

a *This course is approved for the Analyzing the Natural World General Education category.*
b *MATH 180 fulfills the LAS Quantitative Reasoning requirement.*
c *PHYS 141 and PHYS 142 are recommended.*

Major Requirements

Code	Title	Hours
Required Courses		
Select one of the following sequences in general and analytical chemistry:		10-14
CHEM 122	Matter and Energy [a]	
CHEM 123	Foundations of Chemical Inquiry I [a,b]	
CHEM 124	Chemical Dynamics [a]	
CHEM 125	Foundations of Chemical Inquiry II [a,c]	
CHEM 222	Analytical Chemistry	
OR		
CHEM 116	Honors and Majors General and Analytical Chemistry I [d]	
CHEM 118	Honors and Majors General and Analytical Chemistry II [d]	
CHEM 232	Structure and Function	3
CHEM 233	Synthesis Techniques Laboratory	2
CHEM 234	Chemical Synthesis	3
Select one of the following sequences in physical chemistry:		9
CHEM 342	Physical Chemistry I	
CHEM 343	Physical Chemistry Laboratory [e]	
CHEM 346	Physical Chemistry II	
OR		
CHEM 340	Physical Chemistry for Biochemists I	
CHEM 343	Physical Chemistry Laboratory [e]	
CHEM 344	Physical Chemistry for Biochemists II	
CHEM 314	Inorganic Chemistry	4
Advanced chemistry electives at the 200 level or above		5
Total Hours		**36-40**

a *Each of the following pairs will be considered one course in meeting the LAS General Education requirements: CHEM 122/CHEM 123; CHEM 124/CHEM 125.*
b *If not taken concurrently with CHEM 122, CHEM 123 should be taken within one semester of CHEM 122.*
c *If not taken concurrently with CHEM 124, CHEM 125 should be taken within one semester of CHEM 124.*
d *CHEM 116 and CHEM 118 are recommended for chemistry majors.*
e *CHEM 343 fulfills the Writing-in-the-Discipline requirement.*

Recommended Plan of Study

Course	Title	Hours
First Year		
Fall Semester		
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
MATH 180	Calculus I	4
Select one of the following:		5
CHEM 116	Honors and Majors General and Analytical Chemistry I [a]	
CHEM 122 & CHEM 123	Matter and Energy and Foundations of Chemical Inquiry I	
General Education Requirement course		3
	Hours	**15**
Spring Semester		
ENGL 161	Academic Writing II: Writing for Inquiry and Research	3

MATH 181	Calculus II	4
Select one of the following:		3-5
CHEM 118	Honors and Majors General and Analytical Chemistry II [b]	
CHEM 124 & CHEM 125	Chemical Dynamics and Foundations of Chemical Inquiry II	
CHEM 232	Structure and Function	
General Education Requirement course		3-5
	Hours	**13-17**
Second Year		
Fall Semester		
Select one of the following:		3-5
CHEM 124 & CHEM 125	Chemical Dynamics and Foundations of Chemical Inquiry II	
CHEM 232	Structure and Function	
CHEM 233	Synthesis Techniques Laboratory	2
Select one of the following:		4
PHYS 141	General Physics I (Mechanics)	
PHYS 131	Introductory Physics for Life Sciences I	
Foreign Language		4
	Hours	**13-15**
Spring Semester		
CHEM 234	Chemical Synthesis	3
Select one of the following:		4
PHYS 142	General Physics II (Electricity and Magnetism)	
PHYS 132	Introductory Physics for Life Sciences II	
Foreign Language		4
General Education Requirement course		3
	Hours	**14**
Third Year		
Fall Semester		
CHEM 222	Analytical Chemistry [c]	4
CHEM 314	Inorganic Chemistry	4
Foreign Language		4
Electives		5
	Hours	**17**
Spring Semester		
Select one of the following:		3
CHEM 340	Physical Chemistry for Biochemists I [d]	
CHEM 346	Physical Chemistry II [b]	
Foreign Language		4
General Education Requirement course		3
General Education Requirement course		3
Electives		3
	Hours	**16**
Fourth Year		
Fall Semester		
CHEM 343	Physical Chemistry Laboratory [e]	3
Select one of the following:		3
CHEM 342	Physical Chemistry I [a]	
CHEM 344	Physical Chemistry for Biochemists II [d]	
Electives		9
	Hours	**15**
Spring Semester		
Chemistry Elective		5
Electives		10
	Hours	**15**
	Total Hours	**120**

a CHEM 116 *and* CHEM 342 *are offered fall semester only. CHEM 342 requires calculus-based physics (PHYS 141, PHYS 142) as a prerequisite and Calculus III (MATH 210) as a corequisite).*

b *CHEM 118 and CHEM 346 are offered spring semester only.*

c *Students who take CHEM 116 and CHEM 118 to fulfill the general chemistry requirement do not need to take CHEM 222.*

d *CHEM 340 and CHEM 344 are offered in the fall and spring semesters.*

e *CHEM 343 satisfies the Writing-in-the-Discipline requirement.*