

# Chemistry, B.A.

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Learn more about the Bachelor of Arts in Chemistry.

The Bachelor of Arts in Chemistry is designed for students who are planning for a non-research career in a field related to Chemistry. Students learn a wide array of topics in Chemistry, Mathematics, and Physics. Students learn how to write scientific reports, analyze data, and place these results in a broader scientific context.

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## Bachelor of Arts

### Summary of Requirements for the Degree

#### 1. University Requirements (123 total s.h.)

- Students must complete all University requirements including those listed below.
- All Temple students must take a minimum of two writing-intensive courses in their major at Temple. The specific writing-intensive course options for this major are:

Code	Title	Credit Hours
All students must take:		
CHEM 4196	Techniques of Chemical Measurement II	5
The second writing-intensive course may be chosen from:		
CHEM 3397	Physical Chemistry Laboratory I	2
CHEM 3398	Physical Chemistry Laboratory II	2

- Students must complete the General Education (GenEd) requirements.
  - See the General Education section of the *Undergraduate Bulletin* for the GenEd curriculum.
  - Students who complete CST majors receive a waiver for 2 Science & Technology (GS) and 1 Quantitative Literacy (GQ) GenEd courses.
- Students must satisfy general Temple University residency requirements.

#### 2. College Requirements

- 45 Upper Level (2000+) credits within the College of Science & Technology (CST), the College of Liberal Arts (CLA), or the College of Engineering (ENG).
- 90 credits within the College of Science & Technology (CST), the College of Liberal Arts (CLA), or the College of Engineering (ENG).
- Two (2) Upper Level (2000+) Liberal Art courses.
- Second (2nd) Level of a Foreign Language (1002).
- All students in the College of Science and Technology are required to take a one credit first year seminar. SCTC 1001 CST First Year Seminar is the appropriate course option for every entering first year CST major. Transfer students should use SCTC 2001 CST Transfer Seminar to fulfill this requirement. Other courses that fulfill this requirement may be found on the CST College Requirements page.

## 3. Major Requirements for Bachelor of Arts (53 s.h.)

At least 7 courses required for the major must be completed at Temple. At least 5 Chemistry courses must be completed at Temple.

<b>Code</b>	<b>Title</b>	<b>Credit Hours</b>
<b>Chemistry</b>		
Select one of the following:		4
CHEM 1031 & CHEM 1033	General Chemistry I and General Chemistry Laboratory I	
CHEM 1951 & CHEM 1953	Honors General Chemical Science I and Honors Chemical Science Laboratory I (F)	
Select one of the following:		4
CHEM 1032 & CHEM 1034	General Chemistry II and General Chemistry Laboratory II	
CHEM 1952 & CHEM 1954	Honors General Chemical Science II and Honors Chemical Science Laboratory II (S)	
Select one of the following:		4
CHEM 2201 & CHEM 2203	Organic Chemistry I and Organic Chemistry Laboratory I	
CHEM 2211 & CHEM 2213	Organic Chemistry for Majors I and Organic Majors Laboratory I (F)	
CHEM 2921 & CHEM 2923	Organic Chemistry for Honors I and Organic Honors Laboratory I (F)	
Select one of the following:		4
CHEM 2202 & CHEM 2204	Organic Chemistry II and Organic Chemistry Laboratory II	
CHEM 2212 & CHEM 2214	Organic Chemistry for Majors II and Organic Majors Laboratory II (S)	
CHEM 2922 & CHEM 2924	Organic Chemistry for Honors II and Organic Honors Laboratory II (S)	
CHEM 3103 & CHEM 3105	Techniques of Chemical Measurement I and Introduction to Chemical Research Techniques	4
CHEM 3301	Physical Chemistry Lecture I	3
CHEM 3302	Physical Chemistry Lecture II	3
CHEM 4196	Techniques of Chemical Measurement II	5
CHEM 3397 or CHEM 3398	Physical Chemistry Laboratory I Physical Chemistry Laboratory II	2
<b>Mathematics</b>		
MATH 1041 or MATH 1941	Calculus I Honors Calculus I	4
MATH 1042 or MATH 1942	Calculus II Honors Calculus II	4
MATH 2043 or MATH 2943	Calculus III Honors Calculus III	4
<b>Physics</b>		
Select one of the following:		4
PHYS 1061	Elementary Classical Physics I	
PHYS 1961	Honors Elementary Classical Physics I (F)	

PHYS 2021	General Physics I	
PHYS 2921	Honors General Physics I (F)	
Select one of the following:		4
PHYS 1062	Elementary Classical Physics II	
PHYS 1962	Honors Elementary Classical Physics II (S)	
PHYS 2022	General Physics II	
PHYS 2922	Honors General Physics II (S)	
<b>Total Credit Hours</b>		<b>53</b>
<b>Code</b>	<b>Title</b>	<b>Credit Hours</b>
(F) - Fall only course		
(S) - Spring only course		

## Calculation of Major GPA

Courses listed under the major requirements for the degree will be included in the calculation of the major GPA. Courses that could not apply toward the major as an elective or required course would not be counted in the calculation of the major GPA. This would include CHEM 1027, for example.

## Distinction in Major

To graduate with Distinction in Major, students are required to achieve a 3.33 GPA or higher in all the Chemistry courses in their major.

## Suggested Academic Plan

All prospective majors should schedule an appointment with one of the departmental advisors (names of current Faculty Advisors are available in the About section) to plan a program of study. The recommended order of courses for the major is listed below; a different order is acceptable as long as the student adheres to prerequisite requirements.

## Bachelor of Arts in Chemistry

### Requirements for New Students starting in the 2021-2022 Academic Year

<b>Year 1</b>		
<b>Fall</b>		<b>Credit Hours</b>
Select one of the following:		4
CHEM 1031 & CHEM 1033	General Chemistry I	
CHEM 1951 & CHEM 1953	Honors General Chemical Science I (F)	
MATH 1041 or 1941	Calculus I	4
SCTC 1001	CST First Year Seminar	1
ENG 0802, 0812, or 0902	Analytical Reading and Writing [GW]	4
Elective		2
<b>Term Credit Hours</b>		<b>15</b>
<b>Spring</b>		
Select one of the following:		4
CHEM 1032 & CHEM 1034	General Chemistry II	
CHEM 1952 & CHEM 1954	Honors General Chemical Science II (S)	
MATH 1042 or 1942	Calculus II	4
IH 0851 or 0951	Intellectual Heritage I: The Good Life [GY]	3
Elective		4
<b>Term Credit Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
Select one of the following:		4

CHEM 2201 & CHEM 2203	Organic Chemistry I	
CHEM 2211 & CHEM 2213	Organic Chemistry for Majors I (F)	
CHEM 2921 & CHEM 2923	Organic Chemistry for Honors I (F)	
Select one of the following:		4
PHYS 1061	Elementary Classical Physics I	
PHYS 1961	Honors Elementary Classical Physics I (F)	
PHYS 2021	General Physics I	
PHYS 2921	Honors General Physics I (F)	
MATH 2043 or 2943	Calculus III	4
IH 0852 or 0952	Intellectual Heritage II: The Common Good [GZ]	3
<b>Term Credit Hours</b>		<b>15</b>
<b>Spring</b>		
Select one of the following:		4
CHEM 2202 & CHEM 2204	Organic Chemistry II	
CHEM 2212 & CHEM 2214	Organic Chemistry for Majors II (S)	
CHEM 2922 & CHEM 2924	Organic Chemistry for Honors II (S)	
Select one of the following:		4
PHYS 1062	Elementary Classical Physics II	
PHYS 1962	Honors Elementary Classical Physics II (S)	
PHYS 2022	General Physics II	
PHYS 2922	Honors General Physics II (S)	
GenEd Breadth Course		3
Electives		5
<b>Term Credit Hours</b>		<b>16</b>
<b>Year 3</b>		
<b>Fall</b>		
CHEM 3301	Physical Chemistry Lecture I	3
GenEd Breadth Course		3
Electives		9
<b>Term Credit Hours</b>		<b>15</b>
<b>Spring</b>		
CHEM 3103	Techniques of Chemical Measurement I <sup>1</sup>	3
CHEM 3105	Introduction to Chemical Research Techniques <sup>1</sup>	1
CHEM 3302	Physical Chemistry Lecture II	3
GenEd Breadth Course		3
Electives		6
<b>Term Credit Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
CHEM 4196	Techniques of Chemical Measurement II [WI]	5
GenEd Breadth Course		3
Electives		8
<b>Term Credit Hours</b>		<b>16</b>
<b>Spring</b>		
Select one of the following:		2
CHEM 3397	Physical Chemistry Laboratory I [WI]	
CHEM 3398	Physical Chemistry Laboratory II [WI]	

GenEd Breadth Course		3-4
Electives		10-9
	<b>Term Credit Hours</b>	<b>15</b>
	<b>Total Credit Hours:</b>	<b>123</b>

<b>Code</b>	<b>Title</b>	<b>Credit Hours</b>
(F) - Fall only course		
(S) - Spring only course		

<sup>1</sup> It is strongly encouraged that CHEM 3103/CHEM 3105 be taken before all chemistry laboratory courses numbered above 3105.