

# Pharmaceutical Sciences BS

---

## Overview

The **Bachelor of Science in Pharmaceutical Sciences** is designed for students who are planning to obtain both a Bachelor of Science in Pharmaceutical Sciences and a Doctor of Pharmacy degree in seven years. It provides a solid science foundation and broad liberal arts education while preparing students for careers in the areas of research/laboratory work, quality control, and administration in pharmaceuticals, biotechnology, and healthcare industries.

This major is open to incoming first year students who are direct admits to the Temple University School of Pharmacy. Current students who have been admitted to the Pharmacy School and can complete this major within their first year of Temple University School of Pharmacy are welcome to declare this major.

The BS in Pharmaceutical Sciences is a 4-year, non-licensure, undergraduate bachelor's degree program, and does not qualify the student for state board examination to become a registered pharmacist.

Students must meet the admissions requirements for early admission to the Temple University School of Pharmacy.

**Campus Location:** Main

**Program Code:** ST-PS-BS

## Contact Information

Susan Varnum, Program Director and Professor of Chemistry  
Senior Associate Dean for Undergraduate Affairs and Science Education  
College of Science and Technology  
Gladfelter Hall, Room 629  
215-204-4073  
susan.varnum@temple.edu

Joan Hankins, BBA, Director of Admissions  
School of Pharmacy  
215-707-4900  
joan.hankins@temple.edu

College of Science and Technology  
Center for Academic Advising and Professional Development  
Tuttleman Learning Center, Suite 111  
1809 N. 13th Street, Philadelphia PA 19122-6073  
215-204-2890  
cstadv@temple.edu

Office of Pre-Professional Health Advising  
Mitten Hall, Suite 110  
215-204-2513  
healthadvising@temple.edu

Learn more about the Bachelor of Science in Pharmaceutical Sciences.

*These requirements are for students who matriculated in academic year 2023-2024. Students who matriculated prior to fall 2023 should refer to the Archives to view the requirements for their Bulletin year.*

## Bachelor of Science Requirements

### Summary of Requirements for the Degree

1. University Requirements (123 total s.h.)
  - Students must complete all University requirements including those listed below.
  - All undergraduate students must complete at least two writing-intensive courses for a total of at least six credits at Temple as part of their major. The specific writing-intensive course options for this major are:

Code	Title	Credit Hours
SCTC 2396	Writing for Science and Technology	3
And one additional writing-intensive course		3
<ul style="list-style-type: none"> <li>Students must complete the General Education (GenEd) requirements. <ul style="list-style-type: none"> <li>See the General Education section of the <i>Undergraduate Bulletin</i> for the GenEd curriculum.</li> <li>Students who complete CST majors receive a waiver for 2 Science &amp; Technology (GS) and 1 Quantitative Literacy (GQ) GenEd courses.</li> </ul> </li> <li>Students must satisfy general Temple University residency requirements.</li> </ul>		
2. College Requirements		
<ul style="list-style-type: none"> <li>A minimum of 90 total credits within the College of Science &amp; Technology (CST), the College of Liberal Arts (CLA), and/or the College of Engineering (ENG). <ul style="list-style-type: none"> <li>A minimum of 45 of these credits must be upper-level (courses numbered 2000 and above). Up to 33 credits taken during the first year at the School of Pharmacy can be used toward this requirement.</li> </ul> </li> <li>Complete a one-credit first-year or transfer seminar. <ul style="list-style-type: none"> <li>SCTC 1001 CST First Year Seminar for every entering first-year CST student.</li> <li>SCTC 2001 CST Transfer Seminar for every entering transfer CST student.</li> </ul> </li> </ul>		
3. Major Requirements for Bachelor of Science (47-50 s.h.)		
At least 9 courses required for the major must be completed at Temple. Pharmacy courses will count towards this requirement.		
Code	Title	Credit Hours
<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)	
<b>Biology</b>		
BIOL 1111 or BIOL 1911	Introduction to Organismal Biology Honors Introduction to Organismal Biology	4
Select one of the following:		4
BIOL 1112 or BIOL 1912	Introduction to Biomolecules, Cells and Genomes Honors Introduction to Biomolecules, Cells and Genomes	
BIOL 2112 or BIOL 2912	Introduction to Cellular and Molecular Biology Honors Introduction to Cellular and Molecular Biology	
<b>Mathematics</b>		
MATH 1041	Calculus I	4

or MATH 1941	Honors Calculus I	
<b>Physics</b>		
Select one of the following:		4
PHYS 1021	Introduction to General Physics I	
PHYS 1061	Elementary Classical Physics I	
or PHYS 1961	Honors Elementary Classical Physics I	
PHYS 2021	General Physics I	
or PHYS 2921	Honors General Physics I	
<b>Anatomy &amp; Physiology</b>		
Select one of the following: <sup>1</sup>		3-4
KINS 1221	Principles of Anatomy and Physiology I	
KINS 1223	Human Anatomy and Physiology I	
BIOL 2233	Mammalian Anatomy (F)	
Select one of the following: <sup>1</sup>		3-4
KINS 1222	Principles of Anatomy and Physiology II	
KINS 1224	Human Anatomy and Physiology II	
BIOL 3334	Mammalian Physiology (S)	
<b>Economics</b>		
Select one of the following:		3
ECON 1101	Macroeconomic Principles	
ECON 1102	Microeconomic Principles	
ECON 1901	Honors Macroeconomic Principles	
ECON 1902	Honors Microeconomic Principles	
<b>Science and Technology</b>		
SCTC 2396	Writing for Science and Technology (WI)	3
<b>Writing-Intensive</b>		
Writing-Intensive Course (WI)		3-4
<b>Total Credit Hours</b>		<b>47-50</b>
<b>Code</b>	<b>Title</b>	<b>Credit Hours</b>
(F) - Fall only course		
(S) - Spring only course		

<sup>1</sup>  
The anatomy and physiology courses must either both be KINS courses or BIOL courses. Students may not mix and match these courses.

4. School of Pharmacy requirements (33 s.h.)

## Suggested Academic Plan

### Bachelor of Science in Pharmaceutical Sciences

#### Suggested Plan for New Students Starting in the 2023-2024 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 and General Chemistry Laboratory I	
CHEM 1951 & CHEM 1953	Honors General Chemical Science I and Honors Chemical Science Laboratory I (F)	
MATH 1041 or MATH 1941	Calculus I or Honors Calculus I	4
SCTC 1001	CST First Year Seminar	1

ENG 0802 or ENG 0812 or ENG 0902	Analytical Reading and Writing or Analytical Reading and Writing: ESL or Honors Writing About Literature	4
Elective		2
<b>Credit Hours</b>		<b>15</b>
<b>Spring</b>		
BIOL 1111 or BIOL 1911	Introduction to Organismal Biology or Honors Introduction to Organismal Biology	4
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)	
IH 0851 or IH 0951	Intellectual Heritage I: The Good Life or Honors Intellectual Heritage I: The Good Life	3
Elective		4
<b>Credit Hours</b>		<b>15</b>
<b>Year 2</b>		
<b>Fall</b>		
Select one of the following:		4
BIOL 1112 or BIOL 1912	Introduction to Biomolecules, Cells and Genomes or Honors Introduction to Biomolecules, Cells and Genomes	
BIOL 2112 or BIOL 2912	Introduction to Cellular and Molecular Biology or Honors Introduction to Cellular and Molecular Biology	
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)	
IH 0852 or IH 0952	Intellectual Heritage II: The Common Good or Honors Intellectual Heritage II: The Common Good	3
GenEd Breadth Course		3
<b>Credit Hours</b>		<b>14</b>
<b>Spring</b>		
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)	
Select one of the following:		4
PHYS 1021	Introduction to General Physics I	
PHYS 1061 or PHYS 1961	Elementary Classical Physics I or Honors Elementary Classical Physics I	
PHYS 2021 or PHYS 2921	General Physics I or Honors General Physics I	
GenEd Breadth Course		3
Elective		3
Elective		2
<b>Credit Hours</b>		<b>16</b>

**Year 3****Fall**

Select one of the following: <sup>1</sup>	3-4
---	-----

BIOL 2233	Mammalian Anatomy (F)
KINS 1221	Principles of Anatomy and Physiology I (F)
KINS 1223	Human Anatomy and Physiology I

Select one of the following:	3
------------------------------	---

ECON 1101	Macroeconomic Principles
ECON 1102	Microeconomic Principles
ECON 1901	Honors Macroeconomic Principles
ECON 1902	Honors Microeconomic Principles

Writing-Intensive Course <sup>WI</sup>	3-4
--	-----

GenEd Breadth Course	3-4
----------------------	-----

Elective	3-0
----------	-----

<b>Credit Hours</b>	<b>15</b>
---------------------	-----------

**Spring**

Select one of the following: <sup>1</sup>	3-4
---	-----

BIOL 3334	Mammalian Physiology (S)
KINS 1222	Principles of Anatomy and Physiology II (S)
KINS 1224	Human Anatomy and Physiology II

SCTC 2396	Writing for Science and Technology	3
-----------	------------------------------------	---

GenEd Breadth Course	3
----------------------	---

GenEd Breadth Course	3
----------------------	---

Elective	3-2
----------	-----

<b>Credit Hours</b>	<b>15</b>
---------------------	-----------

**Year 4****Fall**

School of Pharmacy courses	16
----------------------------	----

<b>Credit Hours</b>	<b>16</b>
---------------------	-----------

**Spring**

School of Pharmacy courses	17
----------------------------	----

<b>Credit Hours</b>	<b>17</b>
---------------------	-----------

<b>Total Credit Hours</b>	<b>123</b>
---------------------------	------------

1

The anatomy and physiology courses must either both be KINS courses or BIOL courses. Students may not mix and match these courses.

Code	Title	Credit Hours
(F) - Fall only course		
(S) - Spring only course		

**NOTES:**

- 62-65 credits - required undergraduate prerequisites for admission to the Pharmacy Program.
- 28-25 credits - required to complete undergraduate degree requirements, including GenEd and Writing Intensive requirements not satisfied with the 62-65 credits required for admission to the Pharmacy Program.
- 33 credits - School of Pharmacy credits.