

# Pharmaceutical Sciences, B.S.

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Learn more about the Bachelor of Science in Pharmaceutical Sciences.

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 freshmen 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 B.S. 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.

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## Bachelor of Science

### 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 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

- 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). School of Pharmacy courses may be used for up to 33 of these credits.
- 90 credits within the College of Science & Technology (CST), the College of Liberal Arts (CLA), or the College of Engineering (ENG). School of Pharmacy courses may be used for up to 33 of these credits.
- 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 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
BIOL 2112 or BIOL 2912	Introduction to Cellular and Molecular Biology Honors Introduction to Cellular and Molecular Biology	4
<b>Mathematics</b>		
MATH 1041 or MATH 1941	Calculus I Honors Calculus I	4
<b>Physics</b>		
Select one of the following:		4
PHYS 1061	Elementary Classical Physics I	
PHYS 2021	General Physics I	
PHYS 2921	Honors General Physics I (F)	
<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>

Code	Title	Credit Hours
(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

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

Year 1		Credit Hours
<b>Fall</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>		
BIOL 1111 or 1911	Introduction to Organismal Biology	4
Select one of the following:		4
CHEM 1032 & CHEM 1034	General Chemistry II	
CHEM 1952 & CHEM 1954	Honors General Chemical Science II (S)	
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>		
BIOL 2112 or 2912	Introduction to Cellular and Molecular Biology	4
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)	
IH 0852 or 0952	Intellectual Heritage II: The Common Good [GZ]	3
GenEd Breadth Course		3

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**Term Credit Hours** **14**

**Spring**

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 1061	Elementary Classical Physics I	
PHYS 2021	General Physics I	
PHYS 2921	Honors General Physics I (F)	
GenEd Breadth Course		3
Elective		3
Elective		2

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**Term Credit Hours** **16**

**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 [WI]		3-4
GenEd Breadth Course		3-4
Elective		3-0

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**Term Credit Hours** **15**

**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 [WI]	3
GenEd Breadth Course		3
GenEd Breadth Course		3
Elective		3-2

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**Term Credit Hours** **15**

**Year 4****Fall**

School of Pharmacy courses	16
<b>Term Credit Hours</b>	<b>16</b>
<b>Spring</b>	
School of Pharmacy courses	17
<b>Term Credit Hours</b>	<b>17</b>
<b>Total Credit Hours:</b>	<b>123</b>

<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.

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.