Pharmaceutical Sciences, B.S.

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 pharmaceutics, 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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCTC 2396</td>
<td>Writing for Science and Technology</td>
<td>3</td>
</tr>
<tr>
<td>And one additional writing-intensive course</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

   • 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.

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>CHEM</td>
<td>General Chemistry I and General Chemistry Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1031 &amp; CHEM 1033</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 1951 &amp; CHEM 1953</td>
<td>Honors General Chemical Science I and Honors Chemical Science Laboratory I (F)</td>
<td></td>
</tr>
<tr>
<td>CHEM 1032 &amp; CHEM 1034</td>
<td>General Chemistry II and General Chemistry Laboratory II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 1952 &amp; CHEM 1954</td>
<td>Honors General Chemical Science II and Honors Chemical Science Laboratory II (S)</td>
<td></td>
</tr>
<tr>
<td>CHEM 2201 &amp; CHEM 2203</td>
<td>Organic Chemistry I and Organic Chemistry Laboratory I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2211 &amp; CHEM 2213</td>
<td>Organic Chemistry for Majors I and Organic Majors Laboratory I (F)</td>
<td></td>
</tr>
<tr>
<td>CHEM 2921 &amp; CHEM 2923</td>
<td>Organic Chemistry for Honors I and Organic Honors Laboratory I (F)</td>
<td></td>
</tr>
<tr>
<td>CHEM 2202 &amp; CHEM 2204</td>
<td>Organic Chemistry II and Organic Chemistry Laboratory II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 2212 &amp; CHEM 2214</td>
<td>Organic Chemistry for Majors II and Organic Majors Laboratory II (S)</td>
<td></td>
</tr>
<tr>
<td>CHEM 2922 &amp; CHEM 2924</td>
<td>Organic Chemistry for Honors II and Organic Honors Laboratory II (S)</td>
<td></td>
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</tbody>
</table>

**Biology**

- BIOL 1111 Introduction to Organismal Biology 4
- or BIOL 1911 Honors Introduction to Organismal Biology
- BIOL 2112 Introduction to Cellular and Molecular Biology 4
- or BIOL 2912 Honors Introduction to Cellular and Molecular Biology

**Mathematics**

- MATH 1041 Calculus I 4  
- or MATH 1941 Honors Calculus I

**Physics**

Select one of the following: 4

- PHYS 1061 Elementary Classical Physics I
- PHYS 2021 General Physics I
- PHYS 2921 Honors General Physics I (F)

**Anatomy & Physiology**

Select one of the following: 1 3-4

- KINS 1221 Principles of Anatomy and Physiology I
- KINS 1223 Human Anatomy and Physiology I
- BIOL 2233 Mammalian Anatomy (F)
<table>
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<tr>
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<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINS 1222</td>
<td>Principles of Anatomy and Physiology II</td>
<td></td>
</tr>
<tr>
<td>KINS 1224</td>
<td>Human Anatomy and Physiology II</td>
<td></td>
</tr>
<tr>
<td>BIOL 3334</td>
<td>Mammalian Physiology (S)</td>
<td></td>
</tr>
</tbody>
</table>

**Economics**  
Select one of the following:  
- ECON 1101  
  Macroeconomic Principles  
- ECON 1102  
  Microeconomic Principles  
- ECON 1901  
  Honors Macroeconomic Principles  
- ECON 1902  
  Honors Microeconomic Principles

**Science and Technology**  
SCTC 2396  
Writing for Science and Technology (WI)  
3

**Writing-Intensive**  
Writing-Intensive Course (WI)  
3-4

**Total Credit Hours**  
47-50

(F) - Fall only course  
(S) - Spring only course

1 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**

**Fall**

Select one of the following:  
- CHEM 1031  
  General Chemistry I  
- CHEM 1033  
- CHEM 1951  
  Honors General Chemical Science I (F)  
- CHEM 1953  
  & CHEM 1041 or 1941  
  Calculus I  
- MATH 1041 or 1941  
- SCTC 1001  
  CST First Year Seminar  
- ENG 0802, 0812, or 0902  
  Analytical Reading and Writing [GW]  
- Elective  
  4

**Spring**

- BIOL 1111 or 1911  
  Introduction to Organismal Biology  
  4

Select one of the following:  
- CHEM 1032  
  General Chemistry II  
- CHEM 1034  
- CHEM 1952  
  Honors General Chemical Science II (S)  
- CHEM 1954  
  & CHEM 0851 or 0951  
  Intellectual Heritage I: The Good Life [GY]  
- Elective  
  3

**Year 2**

**Fall**

- BIOL 2112 or 2912  
  Introduction to Cellular and Molecular Biology  
  4

Select one of the following:  
- CHEM 1035  
  General Chemistry III  
- CHEM 1955  
  & CHEM 1956  
  Honors General Chemical Science III  
- CHEM 1957  
  & CHEM 1958  
  Honors General Chemical Science IV  
- CHEM 1959  
  IH 1051 or 1951  
  Intellectual Heritage II: The Good Life [GY]  
- Elective  
  4

**Term Credit Hours**  
15

**Term Credit Hours**  
15
CHEM 2201  Organic Chemistry I
& CHEM 2203
CHEM 2211  Organic Chemistry for Majors I (F)
& CHEM 2213
CHEM 2921  Organic Chemistry for Honors I (F)
& CHEM 2923
IH 0852 or 0952  Intellectual Heritage II: The Common Good [GZ] 3
GenEd Breadth Course 3

**Term Credit Hours** 14

**Spring**

Select one of the following: 4

- CHEM 2202  Organic Chemistry II
  & CHEM 2204
- CHEM 2212  Organic Chemistry for Majors II (S)
  & CHEM 2214
- CHEM 2922  Organic Chemistry for Honors II (S)
  & CHEM 2924

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

**Term Credit Hours** 16

**Year 3**

**Fall**

Select one of the following: 1

- 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

**Term Credit Hours** 15

**Spring**

Select one of the following: 1

- 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

**Term Credit Hours** 15

**Year 4**

**Fall**
School of Pharmacy courses

<table>
<thead>
<tr>
<th>Term Credit Hours</th>
<th>16</th>
</tr>
</thead>
</table>

Spring

<table>
<thead>
<tr>
<th>School of Pharmacy courses</th>
<th>17</th>
</tr>
</thead>
</table>

Total Credit Hours: 123

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

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>(F)</td>
<td>Fall only course</td>
<td></td>
</tr>
<tr>
<td>(S)</td>
<td>Spring only course</td>
<td></td>
</tr>
</tbody>
</table>

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.