

# BIOLOGY, BACHELOR OF SCIENCE (BS) - CONCENTRATION IN PROFESSIONAL / PRE-PHYSICAL THERAPY (SRU) (3+3)

## Biology Program Learning Outcomes

- **Competence in Laboratory and Research Skills:** To conduct, assess, and communicate research investigations using established scientific practices.
- **Core Concepts for Biological Literacy:**
  - Knowledge/Content:
    - Evolution
    - Structure and function across all levels of biological organization
    - Diversity and interactions of life
    - Information flow, exchange and storage in biological systems
  - Critical Thinking/Problem Solving:
    - Connect information from cognate science courses and liberal arts courses to biological concepts
    - Apply scientific information to current and future societal problems
- **Participation in Diverse, Enriching Scientific Activities:** Apply technical and professional skills in hands-on laboratory, clinical or field experiences.
- **Professional Attitude:** Graduates demonstrate professional attitude, behavior, and ability to interact with people from diverse backgrounds and cultures.

## What are your options?

**Pre-Physical Therapy SRU 3+3:** Earn a Doctor of Physical Therapy in six years rather than seven. In the first three years, you complete your major courses and pre-requisites for the SRU DPT program. During your third undergraduate year, you apply for admission into the SRU DPT program. If accepted, your first year in the SRU DPT program meets the remaining requirements for your undergraduate degree. If not accepted, you continue to complete your undergraduate degree and can reapply to the program. The accelerated option is for incoming freshmen only.

**Pre-Physical Therapy (SRU Traditional):** Complete the requirements for your major and the pre-requisites for the SRU DPT program and apply to the SRU DPT program in your senior year.

## Related Links

Biology - Pre-Physical Therapy, BS Program Page (<https://www.sru.edu/academics/majors-and-minors/biology-pre-physical-therapy/>)

Biology Department Page (<https://www.sru.edu/academics/colleges-and-departments/ches/departments/biology/>)

Professional Licensure/Certification Page (<https://www.sru.edu/students/student-consumer-information/professional-licensure/>)

## Curriculum Guide

### GPA Requirement

#### 1st Major: Biology

- Overall GPA: 2.00 or higher
- Major GPA (only includes Biology courses): 2.00 or higher

#### 2nd Major: Pre-PT SRU 3+3 Biology

- Overall GPA: 3.00 or higher

### Summary\*

Code	Title	Hours
	Rock Studies 2 Requirements	45
	Other Basic Requirements	0-3
	Computer Competency	0-3
	Major Requirements	43
	Natural Science and Math College-Wide Requirements	12
	Electives	32

\* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate. However, because this is a pre-professional program, credits taken during the 1<sup>st</sup> year of the graduate program are applied toward the undergraduate credit hours to meet the 120 credits required for your undergraduate degree.

### Rock Studies 2 Requirements

Code	Title	Hours
<b>The Rock</b>		
SUBJ 139	Foundations of Academic Discovery <sup>1</sup>	3
ENGL 102	Critical Writing	3
ENGL 104	Critical Reading	3
MATH 125	Precalculus	4
	or MATH 225	Calculus I
Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
Subtotal		16
<b>Integrated Inquiry</b>		
<i>Creative and Aesthetic Inquiry</i>		
Select 3 Credits ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> )		3
<i>Humanities Inquiry</i>		
Select 3 Credits ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> )		3
<i>Social Science Inquiry</i>		
Select 3 Credits ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> )		3
<i>Natural Sciences Inquiry</i>		
CHEM 107	General Chemistry I	3
CHEM 111	General Chemistry I Lab	1

*Physical Sciences Inquiry*

PHYS 201 or PHYS 216	Elements of Physics I with Lab University Physics 1 with Lab	4
Subtotal		17
<b>Thematic Thread</b>		
Select 12 Credits ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> ) <sup>2</sup>		12
<b>Total Hours</b>		<b>45</b>

<sup>1</sup> Course offered in multiple subjects; cannot take course in first major subject

<sup>2</sup> One course from each category; six credits must be 300-level or above; no more than 4 credits from one subject area; specific courses required in first major, regardless of prefix of course, cannot be used to satisfy thread requirements; any course with same prefix as first major cannot be used to satisfy thread requirements, even if it is not a course in the first major.

**Basic Math Requirement**

Check with your adviser or a current degree audit report to see if you have been exempted from this course. The credit earned in this course will not be counted toward the 120 credit hour minimum needed to earn a degree.

Code	Title	Hours
Complete one of the following:		0-3
Meet required minimum SAT or ACT math score OR		
ESAP 110	Beginning Algebra	
<b>Total Hours</b>		<b>0-3</b>

**Computer Competency**

Code	Title	Hours
Demonstrate "computer competency" by one of the following:		0-3
Pass Computer Competency Exam OR		
Select one of the following at SRU or another post-secondary institution:		
CPSC 100	Introduction to Computing for Liberal Arts	
CPSC 110	Computer Concepts	
CPSC 130	Introduction to Computing and Programming	
PE 202	Technology for Wellness	
<b>Total Hours</b>		<b>0-3</b>

**DIVERSITY, EQUITY, AND INCLUSION REQUIREMENT**

Students must take and pass a course with the Diversity, Equity, and Inclusion (DEI) designation prior to graduation. Students can meet this requirement by taking any DEI - designated course in any program at any time during their undergraduate career.

**Major Requirements**

- Students desiring a Biology Major must maintain at least a 2.000 average in Biology.
- Students must earn a "C" or better in both Biology I with Lab (BIOL 113 and Biology II with Lab (BIOL 114) before proceeding to their next biology course.
- Students must earn a "C" or better in both Genetics with Lab (BIOL 250) and Biometry with Lab (BIOL 325) prior to graduating.

- If you choose to pursue Pre-Physical Therapy SRU 3+3 Biology and are not accepted into the DPT program, then additional coursework is required to complete a first major of Biology-Professional. Please refer to the Biology-Professional Curriculum Guide.

- To view the SRU policy on senior undergraduate students earning graduate credit, click here (<https://catalog.sru.edu/academic-policies/senior-undergraduate-students-earning-graduate-credit/>).

Code	Title	Hours
<b>Biology Core Requirements</b>		
BIOL 113	Biology I: Foundations of Ecology, Evolution and Diversity with Lab	4
BIOL 114	Biology II: Foundations of Molecules, Genes and Cells with Lab	4
BIOL 250	Genetics with Lab <sup>1</sup>	4
BIOL 325	Biometry with Lab	3
Subtotal		15
<b>Required Upper-Level Biology</b>		
BIOL 330	Microbiology/Lab	3
BIOL 340	Vertebrate Anatomy with Lab	3
BIOL 410	Animal Physiology with Lab	3
Subtotal		9
<b>Related Sciences – Chemistry</b>		
CHEM 201	Organic Chemistry I	3
CHEM 202	Organic Chemistry II	3
CHEM 211	Organic Chemistry Laboratory I	1
CHEM 212	Organic Chemistry Laboratory II	1
CHEM 335	Biochemistry I	3
Subtotal		11
<b>SRU DPT Program Requirements</b>		
CHEM 108	General Chemistry II	3
CHEM 112	General Chemistry II Lab	1
PHYS 202 or PHYS 217	Elements of Physics II/ Lab University Physics 2 with Lab	4
Subtotal		8
<b>Major Field Test</b>		
Field Test required of all Biology students before graduation		
<b>Total Hours</b>		<b>43</b>

<sup>1</sup> Core GPA

\* Some courses may require pre-requisites. Please see course descriptions to determine if there are any pre-requisites for that specific course.

**Natural Science and Math College-Wide Requirements**

Code	Title	Hours
CHEM 107	General Chemistry I	3
CHEM 111	General Chemistry I Lab	1
MATH 125 or MATH 225	Precalculus Calculus I	4
PHYS 201 or PHYS 216	Elements of Physics I with Lab University Physics 1 with Lab	4

### Additional Physical Therapy Prerequisite Courses

Code	Title	Hours
PSYC 105	Introduction to Psychology	3
PSYC (additional)	See My Rock Audit for options	
<b>Total Hours</b>		<b>3</b>

### Co-curricular and Experiential Learning

Students are encouraged to explore additional curricular and co-curricular opportunities. There is a strong correlation between long-term student success and participation in the following types of programs and activities:

1. Volunteering
2. Job Shadowing

### Doctor of Physical Therapy (DPT) Prerequisite Admission Requirements – Pre-Physical Therapy SRU 3+3

#### For Application Requirements

Please refer to Slippery Rock University's Physical Therapy (Doctor of Physical Therapy) website for requirements: [www.sru.edu/PT/](http://www.sru.edu/PT/) (<http://www.sru.edu/PT/>).

#### Rock Studies 2

Code	Title	Hours
<b>Prerequisite Courses - SRU Physical Therapy</b>		
Select one of the following:		6-8
BIOL 209 & BIOL 309	and	
BIOL 340 & BIOL 410	Vertebrate Anatomy with Lab and Animal Physiology with Lab	
CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab	4
CHEM 108 & CHEM 112	General Chemistry II and General Chemistry II Lab	4
Select one of the following:		8
PHYS 201 & PHYS 202	Elements of Physics I with Lab and Elements of Physics II/ Lab	
PHYS 216 & PHYS 217	University Physics 1 with Lab and University Physics 2 with Lab	
STAT 152 or BIOL 325	Elementary Statistics I or Biometry with Lab	3
PSYC 105	Introduction to Psychology	3
Additional Psychology Course <sup>1</sup>		3
<b>Total Hours</b>		<b>31-33</b>

<sup>1</sup> See My Rock Audit for specific courses.

**Requirements for Pre-Physical Therapy SRU 3+3**  
**If any of these requirements are not met, the 3+3 designation will be removed from the student's record:**

1. A 3.0 or higher overall GPA must be maintained by the student.
2. The student can only be enrolled in the Pre-Physical Therapy SRU 3+3 program for a maximum of three (3) years, full-time continuous enrollment (fall/spring).

### Provision

Should a Pre-Physical Therapy SRU 3+3 student be unsuccessful in completing the 1st two semesters (fall or spring) of the Doctor of Physical Therapy Program and wants to complete the original undergraduate degree, it is solely up to the discretion of the undergraduate program Department Chair to determine which, if any, Physical Therapy courses will count toward the completion of his/her undergraduate degree. In addition, students must complete any unfulfilled requirements of their undergraduate major. Students may still apply to the Doctor of Physical Therapy Program with an earned Bachelor's degree.

### Important Curriculum Guide Notes

This Curriculum Guide is provided to help SRU students and prospective students better understand their intended major curriculum. Enrolled SRU students should note that the My Rock Audit may place already-earned and/or in progress courses in different, yet valid, curriculum categories. Enrolled SRU students should use the My Rock Audit Report and materials and information provided by their faculty advisers to ensure accurate progress towards degree completion. *The information on this guide is current as of the date listed. Students are responsible for curriculum requirements at the time of enrollment at the University.*

PASSHE - Pennsylvania State System of Higher Education Institutions

BIOLOGY - PROFESSIONAL - BS (6108)

PRE-PT SRU 3+3 (61P8)

This program is effective as of Summer 2022

Revised 04.20.2022

UCC 02.01.2022

### Recommended Three-Year Plan

Course	Title	Hours
<b>First Year</b>		
<b>Fall</b>		
ENGL 102	Critical Writing	3
BIOL 113	Biology I: Foundations of Ecology, Evolution and Diversity with Lab	4
CHEM 107	General Chemistry I	3
CHEM 111	General Chemistry I Lab	1
SUBJ 139	Foundations of Academic Discovery <sup>1</sup>	3
ESAP 101	FIRST Seminar *	1
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
ENGL 104	Critical Reading	3
BIOL 114	Biology II: Foundations of Molecules, Genes and Cells with Lab	4
CHEM 108	General Chemistry II	3
CHEM 112	General Chemistry II Lab	1
Creative & Aesthetic Inquiry ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> )		3
Humanities Inquiry ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> )		3
<b>Hours</b>		<b>17</b>
<b>Second Year</b>		
<b>Fall</b>		
Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	

PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
BIOL 250	Genetics with Lab	4
CHEM 201	Organic Chemistry I	3
CHEM 211	Organic Chemistry Laboratory I	1
Social Science Inquiry ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> )		3
PSYC 105	Introduction to Psychology (Recommended for Social Science Inquiry Requirement)	3
Declare a Thematic Thread <sup>2</sup>		
<b>Hours</b>		<b>17</b>
<b>Spring</b>		
CHEM 202	Organic Chemistry II	3
CHEM 212	Organic Chemistry Laboratory II	1
BIOL 325	Biometry with Lab	3
MATH 225	Calculus I	4
or MATH 125	or Precalculus	
Thematic Thread Requirement ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> )		3
<b>Hours</b>		<b>14</b>
<b>Third Year</b>		
<b>Fall</b>		
BIOL 340	Vertebrate Anatomy with Lab	3
BIOL 410	Animal Physiology with Lab	3
CHEM 335	Biochemistry I	3
PHYS 201	Elements of Physics I with Lab	4
or PHYS 216	or University Physics 1 with Lab	
PSYC (Additional) –See My Rock Audit for Options		3
<b>Hours</b>		<b>16</b>
<b>Spring</b>		
BIOL 325	Biometry with Lab	3
BIOL 330	Microbiology/Lab	3
PHYS 202	Elements of Physics II/ Lab	4
or PHYS 217	or University Physics 2 with Lab	
Thematic Thread Requirement ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> )		3
Thematic Thread Requirement ( <a href="https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/">https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/</a> )		3
<b>Hours</b>		<b>16</b>
<b>Fourth Year</b>		
<b>Fall</b>		
Physical Therapy Program		
<b>Hours</b>		<b>0</b>
<b>Spring</b>		
Physical Therapy Program		
<b>Hours</b>		<b>0</b>
<b>Total Hours**</b>		<b>95</b>

*\*\* This document is meant to serve as a guide. Some planners may show more than 120 credits because faculty have created flexibility in choosing courses. However, only 120 credits are required to obtain a degree. Please consult with your academic adviser and refer to your curriculum guide prior to registering for courses. This plan should be reviewed, and verified, by you and your academic adviser at least once each academic year.*

Major Code: 6108  
Concentration Code: 61P8  
Revised Date: 04.21.22

<sup>1</sup> Course offered in multiple subjects; cannot take course in first major subject.

<sup>2</sup> Work with your Academic Adviser to declare a Thematic Thread by the end of your fall semester in your second year.

\* Students are encouraged to take ESAP 101 as a Free Elective.