

CHEMISTRY, BACHELOR OF SCIENCE (BS) / PRE-PHYSICIAN ASSISTANT (SRU) (3+2)

Chemistry Program Learning Outcomes

- Students will demonstrate knowledge of the main disciplines of chemistry, namely *Organic, Analytical, Biological, Physical, and Inorganic* chemistry.
- Students will demonstrate development of technical skills for practical applications of chemistry.
- Students will present collected experimental data in written and oral reports.
- Students and faculty will participate in faculty-led research projects. Students are expected to be actively working in the laboratory under the supervision and guidance of a faculty mentor.

What are your options?

Pre-Physician Assistant SRU 3+2: Earn a Master of Science degree in Physician Assistant Studies in five years rather than six. In the first three years, you complete your major courses and pre-requisites for the SRU PA program. At the end of your second year, you apply for admission into the SRU PA program. If accepted, your first year in the SRU PA 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-Physician Assistant (SRU Traditional): Complete the requirements for your major and the pre-requisites for the SRU PA program and apply to the SRU PA program in your senior year.

Related Links

Chemistry - Pre-Physician Assistant, BS Program Page (<https://www.sru.edu/academics/majors-and-minors/chemistry-pre-physician-assistant/>)

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

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

Curriculum Guide

GPA Requirement

1st Major: Chemistry

- Overall GPA: 2.00 or higher
- Major GPA (includes Major Requirements and College Wide Requirements): 2.00 or higher

2nd Major: Pre-PA SRU 3+2 Chemistry

- Overall GPA: 3.00 or higher (before Fall 2018)
- Overall GPA: 3.25 or higher (Fall 2018 and after)

Summary*

Code	Title	Hours
	Rock Studies Requirements	45
	Other Basic Requirements	0-3
	Computer Competency	0-3
	Major/Concentration Requirements	50
	Natural Science and Math College-Wide Requirements	12
	Electives	23

* 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 1st year of the graduate program are applied toward the undergraduate credit hours to meet the 120 credits required for your undergraduate degree.

Rock Studies Requirements

Code	Title	Hours
The Rock		
SUBJ 139	University Seminar ¹	3
ENGL 102	Critical Writing	3
ENGL 104	Critical Reading	3
MATH 225	Calculus I	4
Select one of the following:		
COMM 200	Civil Discourse: Theory & Practice	3
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
Subtotal		16
Integrated Inquiry		
<i>Creative and Aesthetic Inquiry</i>		
Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/)		3
<i>Humanities Inquiry</i>		
Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/)		3
<i>Social Science Inquiry</i>		
Select 3 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/)		3
<i>Natural Sciences Inquiry</i>		
CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab ²	4
<i>Physical Sciences Inquiry</i>		
PHYS 216	University Physics 1 with Lab ²	4
Subtotal		17
Thematic Thread		
Select 12 Credits (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-quick-guide/) ³		12
Total Hours		45

¹ Course offered in multiple subjects; cannot take course in first major subject

² Course counts for 50% of Major requirements and Major GPA

³ From at least 3 categories; no more than 6 credits from one department; 6 credits must be 300-level or above.

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	
Total Hours		0-3

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	
Total Hours		0-3

Major/Concentration Requirements

- 25 major credits must be taken at SRU or PASSHE
- 25 major credits must be taken at the 300 level or above
- If you choose to pursue Pre-Physician Assistant SRU 3+2 Chemistry and are not accepted into the PA program, then CHEM 302, CHEM 425, CHEM 426, and CHEM 460 are required to complete a first major in Chemistry. In this case, CHEM 425/CHEM 426 cannot count towards the Additional Required-In-Depth Course Requirement. Please refer to the Chemistry Curriculum Guide.

Code	Title	Hours
Required Introductory Chemistry Courses		
CHEM 108	General Chemistry II ¹	3
CHEM 112	General Chemistry II Lab ¹	1
Subtotal		4
Required Foundation Chemistry Courses		
CHEM 201	Organic Chemistry I ¹	3
CHEM 211	Organic Chemistry Laboratory I ¹	1
CHEM 243	Introduction to Research in Chemistry ¹	1
CHEM 301	Physical Chemistry I ¹	3
CHEM 321	Physical Chemistry Laboratory I ¹	1
CHEM 335	Biochemistry I ¹	3
CHEM 336	Biochemistry Laboratory I ¹	1
CHEM 350	Analytical Chemistry ¹	3
CHEM 351	Analytical Chemistry Lab ¹	1
CHEM 442	Inorganic Chemistry ¹	3
CHEM 452	Physical Inorganic Chemistry Laboratory ¹	1
CHEM 491	Chemistry Seminar ¹	1
Subtotal		22
Required In-Depth Chemistry Courses		

CHEM 202	Organic Chemistry II ¹	3
CHEM 212	Organic Chemistry Laboratory II ¹	1
CHEM 337	Biochemistry II ¹	3
CHEM 338	Biochemistry Laboratory II ¹	1
Subtotal		8

Additional Required In-Depth Chemistry Courses

Select four credits (must include one lecture and one lab):			4
CHEM 340	Air Quality Assessment ¹		
CHEM 370	Water Quality Assessment ¹		
CHEM 415	Forensic Analysis ¹		
CHEM 416	Forensic Analysis Lab ¹		
CHEM 425	Instrumental Analysis		
CHEM 426	Instrumental Analysis Laboratory ¹		
CHEM 475	Advanced Organic Synthesis ¹		
Subtotal			4

Cognate Courses

BIOL 104	Principles of Biology with Lab ¹	4
PHYS 217	University Physics 2 with Lab ¹	4
MATH 230	Calculus II ¹	4
Subtotal		12
Total Hours		50

¹ Course counts for 50% of Major requirements and Major GPA

Natural Science and Math College-Wide Requirements

Code	Title	Hours
CHEM 107	General Chemistry I ¹	3
CHEM 111	General Chemistry I Lab ¹	1
MATH 225	Calculus I ¹	4
PHYS 216	University Physics 1 with Lab ¹	4

¹ Course counts for 50% of Major requirements and Major GPA

Additional Physician Assistant Prerequisite Courses

Code	Title	Hours
BIOL 216	Anatomy and Physiology I with Lab	3
BIOL 217	Anatomy and Physiology II with Lab	3
BIOL 250	Genetics with Lab	4
BIOL 330	Microbiology/Lab	3
ERS 250	Medical Terminology	3
or HCAM 250	Medical Terminology for Healthcare Administrators	
STAT 152	Elementary Statistics I	3

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. High-Impact Practice (HIP) designated classes (e.g., Organic Chemistry II Lab)
2. Student-faculty research
3. Student leadership development (Chemistry Club)
4. Career education and development

5. Internships
6. Student teaching (serve as Lab Assistants and tutors)
7. Volunteering

Physician Assistant Studies (Master of Science in Physician Assistant Studies) Prerequisite Admission Requirements – Pre- Physician Assistant 3+2

For Application Requirements

Please refer to Slippery Rock University's Physician Assistant Studies (Master of Science in Physician Assistant Studies) website for requirements: <http://www.sru.edu/pa> (<http://www.sru.edu/pa/>)

Liberal Studies and Rock Studies

Code	Title	Hours
Prerequisite Courses - SRU Physician Assistant		
BIOL 104	Principles of Biology with Lab	4
BIOL 216	Anatomy and Physiology I with Lab	3
BIOL 217	Anatomy and Physiology II with Lab	3
BIOL 250	Genetics with Lab	4
BIOL 210 or BIOL 330	Medical Microbiology with Lab Microbiology/Lab	3
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
CHEM 201	Organic Chemistry I	3
Inferential Statistics Course ¹		3
PSYC 105	Introduction to Psychology	3
ERS 250 or HCAM 250	Medical Terminology Medical Terminology for Healthcare Administrators	3
Total Hours		37

¹ Any statistics course with inferential statistics embedded. See My Rock Audit for specific courses.

Pre-Physician Assistant SRU 3+2 Requirements

If any of these requirements are not met, the 3+2 designation will be removed from the student's record:

1. A 3.25 or higher overall GPA must be maintained by the student.
2. The student can only be enrolled in the Pre-Physician Assistant SRU 3+2 program for a maximum of three (3) years, full-time continuous enrollment (fall/spring).

Provision

Should a Pre-Physician Assistant SRU 3+2 student be unsuccessful in completing the 1st two semesters (summer or fall) of the Physician Assistant 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, Physician Assistant 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 Physician Assistant Studies 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

CHEMISTRY - BS (6118)

PRE-PA 3+2 (6SPC)

This program is effective as of Fall 2021

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