

# CHEMISTRY, BACHELOR OF SCIENCE (BS) - CONCENTRATION IN FORENSIC CHEMISTRY - LIBERAL STUDIES

## Curriculum Guide

### GPA Requirement

Major GPA: 2.00 or higher  
Overall GPA: 2.00 or higher

### Summary\*

Code	Title	Hours
	Liberal Studies Requirements	45-46
	Other Basic Requirements	0-3
	Computer Competency	0-3
	Major Requirements	56
	Natural Science and Mathematics College Wide Requirements	12
	Forensic Chemistry Concentration	18
	ACS Certification – Optional	0-3
	Electives	3

\* 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.

### Liberal Studies Requirements

See Liberal Studies Guide for Goal and Enrichment choices

Code	Title	Hours
<b>Goal Course Requirements</b>		
Complete Goal requirements as indicated below		
<i>Basic Requirements</i>		
ENGL 102	Critical Writing	3
ENGL 104	Critical Reading	3
COMM 200	Civil Discourse: Theory & Practice	3
<i>The Arts</i>		
	Goal ( <a href="https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/">https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/</a> )	3
<i>Global Community</i>		
	Goal–Non-US ( <a href="https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/">https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/</a> )	3
	Goal–Non-US ( <a href="https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/">https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/</a> )	3
	Goal–US ( <a href="https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/">https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/</a> )	3
<i>Human Institutions/Interpersonal Relationships</i>		
CRIM 110	Introduction to Criminology & Criminal Justice Systems (Recommended)	3
<i>Science, Technology &amp; Math</i>		
	Select 9-10 credits of the following recommended courses:	9-10

BIOL 104	Principles of Biology with Lab <sup>1,2,3</sup>	
PHYS 211	General Physics I with Lab (Recommended) <sup>2,3</sup>	
MATH 225	Calculus I (Recommended) <sup>2,3</sup>	
<i>Challenges of the Modern Age</i>		
	Goal ( <a href="https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/">https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/</a> )	3
	Subtotal	36-37
<b>Enrichment Course Requirements</b>		
	Select one course from three of the following Enrichment Areas:	9
	The Arts (p. 1) <sup>4</sup>	
	Global Community ( <a href="https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/">https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/</a> )	
	Human Institutions/Interpersonal Relationships ( <a href="https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/">https://catalog.sru.edu/undergraduate/liberal-studies/liberal-studies-guide/</a> )	
	Science, Technology & Math (p. 1) <sup>5</sup>	
	Subtotal	9
	<b>Total Hours</b>	<b>45-46</b>

### Note

- <sup>1</sup> Course counts for 50% of Major requirements but not for Major GPA
  - <sup>2</sup> Course counts for 50% of Major requirements and Major GPA.
  - <sup>3</sup> Course can be counted as a Liberal Studies Requirement, but earns credit only once toward your 120-credits total.
  - <sup>4</sup> Substitute College Composition I
  - <sup>5</sup> BIOL 250 Recommended<sup>1,2</sup>
- \* Some courses may require pre-requisites. Please see course descriptions to determine if there are any pre-requisites for that specific course.

### 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		
ACSD 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>

## Major/Concentration Requirements

- 28 major credits must be taken at SRU or PASSHE
- 28 major credits must be taken at the 300 level or above

Code	Title	Hours
<b>Required Chemistry Courses</b>		
CHEM 108	General Chemistry II <sup>1</sup>	3
CHEM 112	General Chemistry II Lab <sup>1</sup>	1
Subtotal		4
<b>Required Foundation Chemistry Courses</b>		
CHEM 201	Organic Chemistry I <sup>1</sup>	3
CHEM 211	Organic Chemistry Laboratory I <sup>1</sup>	1
CHEM 243	Introduction to Research in Chemistry	1
CHEM 301	Physical Chemistry I <sup>1</sup>	3
CHEM 321	Physical Chemistry Laboratory I <sup>1</sup>	1
CHEM 335	Biochemistry I <sup>1</sup>	3
CHEM 336	Biochemistry Laboratory I <sup>1</sup>	1
CHEM 350	Analytical Chemistry <sup>1</sup>	3
CHEM 351	Analytical Chemistry Lab <sup>1</sup>	1
CHEM 442	Inorganic Chemistry <sup>1</sup>	3
CHEM 452	Physical Inorganic Chemistry Laboratory <sup>1</sup>	1
CHEM 491	Chemistry Seminar <sup>1</sup>	1
Subtotal		22
<b>Required In-Depth Chemistry Courses</b>		
CHEM 202	Organic Chemistry II <sup>1</sup>	3
CHEM 212	Organic Chemistry Laboratory II <sup>1</sup>	1
CHEM 302	Physical Chemistry II <sup>1</sup>	3
CHEM 425	Instrumental Analysis <sup>1</sup>	3
CHEM 426	Instrumental Analysis Laboratory <sup>1</sup>	1
CHEM 460	Materials Chemistry <sup>1</sup>	3
Subtotal		14
<b>Additional Required In-Depth Chemistry Courses</b>		
Select one lecture and one laboratory course:		4
CHEM 337	Biochemistry II <sup>1</sup>	
CHEM 338	Biochemistry Laboratory II <sup>1</sup>	
CHEM 340	Air Quality Assessment <sup>1</sup>	
CHEM 370	Water Quality Assessment <sup>1</sup>	
CHEM 415	Forensic Analysis <sup>1</sup>	
CHEM 416	Forensic Analysis Lab <sup>1</sup>	
CHEM 475	Advanced Organic Synthesis <sup>1</sup>	
Subtotal		4
<b>Cognate Courses</b>		
BIOL 104	Principles of Biology with Lab <sup>1</sup>	4
PHYS 213	General Physics III/ Lab <sup>1</sup>	4
MATH 230	Calculus II <sup>1</sup>	4
Subtotal		12
<b>Total Hours</b>		<b>56</b>

<sup>1</sup> Course counts for 50% of Major requirements and Major 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 Mathematics College Wide Requirement

Code	Title	Hours
CHEM 107	General Chemistry I <sup>1</sup>	3
CHEM 111	General Chemistry I Lab <sup>1</sup>	1
PHYS 211	General Physics I with Lab <sup>1</sup>	4
MATH 225	Calculus I <sup>1</sup>	4
<b>Total Hours</b>		<b>12</b>

<sup>1</sup> Course counts for 50% of Major requirements and Major GPA

## Forensic Chemistry Concentration

Code	Title	Hours
CHEM 204	Introduction to Forensic Science	3
CHEM 415	Forensic Analysis <sup>1</sup>	3
CHEM 416	Forensic Analysis Lab <sup>1</sup>	1
BIOL 250	Genetics with Lab <sup>1</sup>	4
BIOL 370	Molecular Biology with Lab <sup>1</sup>	3
CRIM 110	Introduction to Criminology & Criminal Justice Systems <sup>1</sup>	3
Subtotal		17

### Electives

Department of Chemistry strongly recommends that the following course be taken:

CRIM 343	Criminal Investigations	3
Subtotal		3
<b>Total Hours</b>		<b>20</b>

<sup>1</sup> Course counts for 50% of Major requirements and Major GPA

## ACS Certification – Optional

Code	Title	Hours
CHEM 490	Independent Study <sup>1</sup>	2
CHEM 496	Research <sup>1</sup>	1
<b>Total Hours</b>		<b>3</b>

<sup>1</sup> Course counts for 50% of Major requirements and Major GPA

## 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)

Concentration in Forensic Chemistry (FORE)

This program is effective as of Fall 2020

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