

CHEMISTRY, BACHELOR OF SCIENCE (BS) - CONCENTRATION IN BIOCHEMISTRY

Recommended Four-Year Plan

Course	Title	Hours
First Year		
Fall		
CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab	4
BIOL 114	Biology II: Foundations of Molecules, Genes and Cells with Lab	4
ENGL 102	Critical Writing	3
ESAP 101	FIRST Seminar ²	1
Select one of the following:		3-4
MATH 120	Intermediate Algebra (if necessary)	
MATH 125	Precalculus (if necessary)	
MATH 225	Calculus I (if necessary)	
MATH 230	Calculus II	
Hours		15-16
Spring		
CHEM 108 & CHEM 112	General Chemistry II and General Chemistry II Lab	4
BIOL 250	Genetics with Lab	4
SUBJ 139	Foundations of Academic Discovery	3
Select one of the following:		4
MATH 125	Precalculus (if necessary)	
MATH 225	Calculus I (if necessary)	
MATH 230	Calculus II	
Hours		15
Second Year		
Fall		
CHEM 201 & CHEM 211	Organic Chemistry I and Organic Chemistry Laboratory I	4
ENGL 104	Critical Reading	3
PHYS 216	University Physics 1 with Lab	4
Select one of the following:		4
MATH 225	Calculus I	
MATH 230	Calculus II (if necessary)	
Hours		15
Spring		
CHEM 202 & CHEM 212	Organic Chemistry II and Organic Chemistry Laboratory II	4
MATH 230	Calculus II	4
PHYS 217	University Physics 2 with Lab	4
Civil Discourse Requirement - select one		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	

POLS 235	Civil Discourse and Democracy	
Hours		15
Third Year		
Fall		
Select one of the following:		6-8
In even years, select:		
CHEM 442	Inorganic Chemistry	
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		
In odd years, select:		
CHEM 301 & CHEM 321	Physical Chemistry 1 and Physical Chemistry Laboratory I	
CHEM 350 & CHEM 351	Analytical Chemistry and Analytical Chemistry Lab	
CHEM 335 & CHEM 336	Biochemistry I and Biochemistry Laboratory I	4
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		
Hours		16-18
Spring		
Select one of the following:		7
In odd years, select:		
CHEM 452	Physical Inorganic Chemistry Laboratory	
CHEM 460	Materials Chemistry	
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		
In even years, select:		
CHEM 302	Physical Chemistry II	
CHEM 425 & CHEM 426	Instrumental Analysis and Instrumental Analysis Laboratory	
CHEM 337 & CHEM 338	Biochemistry II and Biochemistry Laboratory II	4
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		
Hours		17
Fourth Year		
Fall		
Select one of the following:		6-8
In even years, select:		
CHEM 442	Inorganic Chemistry	
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		
In odd years, select:		
CHEM 301 & CHEM 321	Physical Chemistry 1 and Physical Chemistry Laboratory I	
CHEM 350 & CHEM 351	Analytical Chemistry and Analytical Chemistry Lab	
BIOL 370	Molecular Biology	3
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		

Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)	3
Hours	15-17
Spring	
Select one of the following:	7
In odd years, select:	
CHEM 452 Physical Inorganic Chemistry Laboratory	
CHEM 460 Materials Chemistry (odd years)	
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)	
In even years, select:	
CHEM 302 Physical Chemistry II (even years)	
CHEM 425 Instrumental Analysis & CHEM 426 and Instrumental Analysis Laboratory	
BIOL 335 Cell Biology	3
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)	3
Inquiry/Thread/Elective Course (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)	3
Hours	16
Total Hours**	124-129

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

² Students are encouraged to take ESAP 101 as a Free Elective.

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

*** 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: 6118

Concentration: BCHM

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