

CHEMISTRY, BACHELOR OF SCIENCE (BS) - CONCENTRATION IN COMPUTATIONAL CHEMISTRY - ROCK STUDIES

Recommended Rock Studies Four-Year Plan

Course	Title	Hours
First Year		
Fall		
CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab	4
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	
BIOL 104	Principles of Biology with Lab	4
SUBJ 139	University Seminar ¹	3
INDS 101	FIRST Seminar	1
Hours		15-16
Spring		
CHEM 108 & CHEM 112	General Chemistry II and General Chemistry II Lab	4
Select one of the following:		4
MATH 125	Precalculus (if necessary)	
MATH 225	Calculus I (if necessary)	
MATH 230	Calculus II	
ENGL 102	Critical Writing	3
STAT 152	Elementary Statistics I	3
Hours		14
Second Year		
Fall		
CHEM 201 & CHEM 211	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 243	Introduction to Research in Chemistry	1
Select one of the following:		4
MATH 225	Calculus I (if necessary)	
MATH 230	Calculus II	
PHYS 211	General Physics I with Lab	4
CPSC 146	Programming Principles	3
Hours		16
Spring		
CHEM 202 & CHEM 212	Organic Chemistry II and Organic Chemistry Laboratory II	4
MATH 230	Calculus II	4
PHYS 213	General Physics III/ Lab	4

ENGL 104	Critical Reading	3
CPSC 246	Advanced Programming Principles	3
Hours		18
Third Year		
Fall		
CHEM 335 & CHEM 336	Biochemistry I and Biochemistry Laboratory I	4
CHEM 350 & CHEM 351	Analytical Chemistry and Analytical Chemistry Lab	4
BIOL 370	Molecular Biology with Lab	3
CPSC 374	Algorithms and Data Structures	3
Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
Hours		17
Spring		
Select one of the following:		3
CHEM 302	Physical Chemistry II (even years)	
CHEM 460	Materials Chemistry (odd years)	
Select one of the following:		4
In Depth Chemistry Elective (1 lecture and 1 lab)		
CHEM 337 & CHEM 338	Biochemistry II and Biochemistry Laboratory II	
CHEM 415 & CHEM 416	Forensic Analysis and Forensic Analysis Lab	
CHEM 475	Advanced Organic Synthesis	
CHEM 425 & CHEM 426	Instrumental Analysis and Instrumental Analysis Laboratory	4
CHEM 491	Chemistry Seminar	1
CPSC 480	Topics in Computer Science: Machine Learning	3
Hours		15
Fourth Year		
Fall		
CHEM 301 & CHEM 321	Physical Chemistry 1 and Physical Chemistry Laboratory I	4
CHEM 442	Inorganic Chemistry	3
PHYS 385	Computational Physics	3
Inquiry/Thread/Elective Course		3
Hours		13
Spring		
Select one of the following:		3
CHEM 302	Physical Chemistry II (even years)	
CHEM 460	Materials Chemistry (odd years)	
CHEM 452	Physical Inorganic Chemistry Laboratory	1
Inquiry/Thread Course(s)/Elective(s)		3
Inquiry/Thread/Elective Course		3
Inquiry/Thread/Elective Course		3
Hours		13
Total Hours**		121-122

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

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

Optional ACS Certification requires 2 credits of CHEM 490: Independent Study and 1 credit of CHEM 496: Research.

Major Code: 6118

Concentration Code: CCHM

Revised date: 9-2019

*** 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.*