MINOR IN CHEMISTRY

The Department of Chemistry offers a minor in Chemistry to interested students from other disciplines. A minor in Chemistry provides students the opportunity to land a job in the intersection of multiple fields, like veterinary technician, research associate, teacher, environmental coordinator, laboratory analyst, computational analyst, among other interdisciplinary careers. Pursuing a Chemistry minor is also a valuable asset to prepare for any professional or graduate degree..

Requirements
Effective Fall 2023

A minimum grade of C- is required in all of the courses required for the minor.

Students must satisfactorily complete the total credits required for the minor. Minors and interdisciplinary minors require 12 or more upper-division (300- to 400-level) credits.

Additional coursework may be required due to prerequisites.

Code	Title	Credits
Lower Division		
Choose one group from the following:		9-10
Group A		
CHEM 111	General Chemistry I (GT-SC2)	
or CHEM 107	Fundamentals of Chemistry (GT-SC2)	
CHEM 112	General Chemistry Lab I (GT-SC1)	
or CHEM 108	Fundamentals of Chemistry Laboratory (GT-SC1)	
CHEM 113	General Chemistry II	
CHEM 114	General Chemistry Lab II	
Group B		
CHEM 120	Foundations of Modern Chemistry (GT-SC2)	
CHEM 121	Foundations of Modern Chemistry Laboratory (GT-SC1)	
CHEM 231	Foundations of Analytical Chemistry	
CHEM 232	Foundations of Analytical Chemistry Lab	
Upper Division		
Select a minimum of 15 credits from the following courses from at least two different areas of chemistry - analytical, biological, inorganic, organic, and physical; at least 12 credits must be upper-division courses (300-499). [1, 2]		15
Analytical		
CHEM 231	Foundations of Analytical Chemistry	
CHEM 232	Foundations of Analytical Chemistry Lab	
CHEM 334	Quantitative Analysis Laboratory	
CHEM 335	Introduction to Analytical Chemistry	
CHEM 338	Environmental Chemistry	
CHEM 431	Instrumental Analysis	
CHEM 433	Clinical Chemistry	
Biological		
CHEM 320	Chemistry of Addictions	
CHEM 321	Foundations of Chemical Biology	
or BC 351	Principles of Biochemistry	
or BC 401	Comprehensive Biochemistry I	
or BC 403	Comprehensive Biochemistry II	
CHEM 322	Foundations of Chemical Biology Laboratory	
Inorganic		
CHEM 261	Fundamentals of Inorganic Chemistry	
CHEM 263	Foundations of Inorganic Chemistry	
CHEM 264	Foundations of Inorganic Chemistry Laboratory	
CHEM 311	Introduction to Nanoscale Science	
CHEM 461	Inorganic Chemistry	
CHEM 462	Inorganic Chemistry Laboratory	
Organic		
CHEM 241	Foundations of Organic Chemistry	
CHEM 242	Foundations of Organic Chemistry Laboratory	
CHEM 245	Fundamentals of Organic Chemistry	
CHEM 246	Fundamentals of Organic Chemistry Laboratory	
CHEM 341	Modern Organic Chemistry I	
CHEM 343	Modern Organic Chemistry II	
CHEM 344	Modern Organic Chemistry Laboratory	
CHEM 345	Organic Chemistry I	
CHEM 346	Organic Chemistry II	
CHEM 440	Advanced Organic Chemistry Laboratory	
CHEM 445	Synthetic Organic Chemistry	
Physical		
CHEM 371	Fundamentals of Physical Chemistry	
CHEM 372	Fundamentals of Physical Chemistry Lab	
CHEM 473	Foundations of Physical Chemistry	
or BC 411	Physical Biochemistry	
CHEM 474	Physical Chemistry I	
CHEM 475	Physical Chemistry Laboratory I	
CHEM 476	Physical Chemistry II	
CHEM 477	Physical Chemistry Laboratory II	
Program Total Credits:		**24-25**

[1] At least one of these courses must include a laboratory. No more than three of the 15 upper-division chemistry credits may be fulfilled by CHEM 301, CHEM 384, CHEM 487, CHEM 493, CHEM 495, or CHEM 498.

[2] The following courses may count as laboratory: CHEM 232, CHEM 242, CHEM 246, CHEM 264, CHEM 322, CHEM 334, CHEM 344, CHEM 345, CHEM 346, CHEM 372, CHEM 431, CHEM 433, CHEM 440, CHEM 462, CHEM 475, CHEM 477, CHEM 498 (up to three credits only).