UNIVERSITY of WISCONSIN Superior

Chemistry (comprehensive)
Academic Plan of Study
2021-2022 Catalog

Name: _____ **Student ID #:** _____ **Date:** _____

University Studies Requirements

Core Courses **completed within first 60 credits*

Course		Credits	Grade	Planned to Take
WRIT 102 College Writing II		3		
WRIT 209 Business and Professional Writing		3		
HHP 102 Wellness and a Positive Lifestyle		3		
COMM 110 Intro to Speech Communications		3		
MATH/CSCI		3-4		

Humanities

Course	Course Title	Credits	Grade	Planned to Take
History		3		
Literature		3		
World Language, Culture, & Philosophy		3		

Social Science (6 cr) *must include 2 different prefixes*

Course	Course Title	Credits	Grade	Planned to Take
Course 1		3		
Course 2		3		

Natural & Physical Sciences

Course	Course Title	Credits	Grade	Planned to Take
Environmental		2		
Lab		4		

Fine & Applied Arts

Course	Course Title	Credits	Grade	Planned to Take
Art History, Criticism & Appreciation		3		
Aesthetic Experience		3		

Global Awareness & Diversity **may be fulfilled through other University Studies categories*

Course	Course Title	Credits	Grade	Planned to Take
Global Awareness		3		
Diversity		3		

Chemistry (comprehensive) Major Requirements

All grades in required courses for this major must be C or higher, except that two grades of C- may be counted toward the major. No minor is required.

54 total credits required to include:

Chemistry Core required courses (53 credits required):

Course	Course Title	Credits	Grade	Planned to Take
CHEM 105	General Chemistry I	5		
CHEM 106	General Chemistry II	4		
CHEM 305	Quant Analysis Lecture	3		
CHEM 306	Quant Analysis Laboratory	2		
CHEM 320	Organic Chemistry Lecture I	3		
CHEM 321	Organic Chemistry Lecture II	3		
CHEM 322	Organic Chemistry Lab I	1		
CHEM 323	Organic Chemistry Lab II	1		
CHEM 327	Molecular Spectroscopy I	1		
CHEM 345	Physical Chemistry Lect I	4		
CHEM 347	Physical Chemistry Lab I	1		
CHEM 360	Introduction to Biochemistry	3		
CHEM 365	Descriptive Inorganic Chemistry	3		
CHEM 481	Special Topics	1-6		
OR				
CHEM 491	Senior Research	1-4		
OR				
CHEM 496	Senior Paper	1		
CHEM 497	Senior Seminar in Chemistry	1		
MATH 240	Calculus and Analytic Geometry I	4		
MATH 241	Calculus and Analytic Geometry II	4		
PHYS 201	Calculus-Based Physics I	4		
PHYS 202	Calculus-Based Physics II	5		
MATH 242	Calculus and Analytic Geometry III *(recommended)*	4		

Note: *PHYS 107 & PHYS 205 together substitute for PHYS 201. PHYS 108 and PHYS 206 together substitute for PHYS 202. Special department permission required to enroll in PHYS 205 or PHYS 206.*

Capstone courses (1 credit required):

CHEM 491	Special Research	1-4		
CHEM 496	Senior Paper	1		
CHEM 498	Internship	1-4		

Professional Chemistry Option:

This option is recommended for students considering graduate school in chemistry or employment as a professional chemist. In addition to the required courses listed above students must also complete:

Course	Course Title	Credits	Grade	Planned to Take
CHEM 346	Physical Chemistry Lecture II	3		
CHEM 348	Physical Chemistry Lab II	2		
CHEM 375	Instrumental Analysis Lecture	3		
CHEM 376	Instrumental Analysis Lab	2		

UNIVERSITY of WISCONSIN Superior

Chemistry (non-comprehensive)
Academic Plan of Study
2021-2022 Catalog

Name: _____ **Student ID #:** _____ **Date:** _____

University Studies Requirements

Core Courses **completed within first 60 credits*

Course		Credits	Grade	Planned to Take
WRIT 102 College Writing II		3		
WRIT 209 Business and Professional Writing		3		
HHP 102 Wellness and a Positive Lifestyle		3		
COMM 110 Intro to Speech Communications		3		
MATH/CSCI		3-4		

Humanities

Course	Course Title	Credits	Grade	Planned to Take
History		3		
Literature		3		
World Language, Culture, & Philosophy		3		

Social Science (6 cr) *must include 2 different prefixes*

Course	Course Title	Credits	Grade	Planned to Take
Course 1		3		
Course 2		3		

Natural & Physical Sciences

Course	Course Title	Credits	Grade	Planned to Take
Environmental		2		
Lab		4		

Fine & Applied Arts

Course	Course Title	Credits	Grade	Planned to Take
Art History, Criticism & Appreciation		3		
Aesthetic Experience		3		

Global Awareness & Diversity **may be fulfilled through other University Studies categories*

Course	Course Title	Credits	Grade	Planned to Take
Global Awareness		3		
Diversity		3		

Chemistry (non-comprehensive) Major Requirements

30 Chemistry credits plus 8 Physics credits

This Chemistry Major is designed for students who would like to earn a major in Chemistry to accompany a minor or major in another discipline. By taking additional coursework students have the option to earn the comprehensive Chemistry major or complete necessary pre-requisites required of most Chemistry graduate programs. Consult with your advisor and the relevant post-graduate programs regarding additional requirements.

Required Chemistry courses (23 credits)

Course	Course Title	Credits	Grade	Planned to Take
CHEM 105	General Chemistry I	5		
CHEM 106	General Chemistry II	4		
CHEM 305	Quant Analysis Lecture	3		
CHEM 306	Quant Analysis Laboratory	2		
CHEM 320	Organic Chemistry Lecture I	3		
CHEM 321	Organic Chemistry Lecture II	3		
CHEM 322	Organic Chemistry Lab I	1		
CHEM 323	Organic Chemistry Lab II	1		
CHEM 327	Molecular Spectroscopy I	1		

Physical Chemistry (3 credits)

CHEM 345	Physical Chemistry Lect I	4		
or				
CHEM 381	Intermediate Topics: Introduction to Physical Chemistry	3		

Chemistry Elective (3 credits)

3 credits of 300-level or above		3		

Capstone courses (1 credit required):

CHEM 491	Special Research	1-4		
CHEM 497	Senior Seminar	1		
CHEM 498	Internship	1-4		

Required Cognates

MATH 115	Precalculus	5		
or				
MATH 151	Calculus for Business, Life, and Social Sciences	3		
or				
Placement into MATH 240 – Calculus and Analytical Geometry I				

Physics (8 credits)

PHYS 107	Algebra-Based Physics I	4		
or				
PHYS 201	Calculus-Based Physics I	5		
PHYS 108	Algebra-Based Physics II	4		
or				
PHYS 202	Calculus-Based Physics II	5		