

CHEMISTRY, BACHELOR OF SCIENCE - SECONDARY EDUCATION CONCENTRATION

Summary of Graduation Requirements

Subject Area	Credits
General Education Core (https://catalog.nsu.edu/undergraduate/academic-information/general-education-core-program/)	40
Core Major	42
Requirements Electives	17
Other Requirements	23
Total Credit Hours	122

Curriculum

Course	Title	Credits
First Year		
SEM 101 & SEM 102	Spartan Seminar 101 and Spartan Seminar 102	2
CHM 231	General Chemistry I	3
CHM 231R	General Chemistry Applications I	1
CHM 221L	General Chemistry I Laboratory	1
CHM 232	General Chemistry II	3
CHM 232R	General Chemistry Applications II	1
CHM 222L	General Chemistry II Laboratory	1
CSC 170	Computer Programming I	3
CSC 170L	Computer Programming Laboratory I	1
ENG 101	College English I	3
ENG 102	College English II	3
HED 100	Personal and Community Health	2
HIS XXX	History Elective (from the General Education Core)	3
MTH 153	College Algebra & Trigonometry	3
MTH 184	Calculus I	4
PED 100	Fundamentals of Fitness for Life	1

Credits 35

Second Year

SEM 201	Spartan Seminar 201	1
CHM 321	Organic Chemistry I	3
CHM 321L	Organic Chemistry I Laboratory	2
CHM 322	Organic Chemistry II	3
CHM 322L	Organic Chemistry II Laboratory	2
CHM 331	Analytical Chemistry I	3
CHM 331L	Analytical Chemistry I Laboratory	2
EDU 201	Foundations of Education	3
EDU 381	Classroom and Behavior Management	3
MTH 251	Calculus II	4
PHY 152	General Physics	3
PHY 152L	General Physics Laboratory I	1
PHY 153	General Physics	3

PHY 153L	General Physics Laboratory II	1
Credits		34

Third Year

BIO 110	General Biology	3
BIO 110L	General Biology Laboratory	1
CHM 332	Analytical Chemistry II	3
CHM 332L	Analytical Chemistry II Laboratory	2
CHM 451	Chemistry Seminar I	1
CHM 361	Physical Chemistry I	3
CHM 363L	Physical Chemistry Laboratory	2
ENG 285	Public Speaking	3
SED 385	Curriculum and Instructional Procedures in Science	3
SOC 101	Introduction to the Social Sciences	3
XXX XXX	Cultural Elective (from the General Education Core)	3
XXX XXX	Humanities Elective (from the General Education Core)	3

Credits 30

Fourth Year

CHM 452	Chemistry Seminar II	1
CHM 497 or CHM 498	Introduction to Research or Introduction to Research	1
CHM 431	Biochemistry I	3
CHM 473	Advanced Inorganic Chemistry	3
PSY 228	Developmental Psychology	3
SED 405	Reading in the Content Area	3
Only 3 credit hours of SED 499 is required for Chemistry major students		3
SED 499	Directed Teaching (internship)	
XXX XXX	Electives	2
XXX XXX	Cultural Elective (from the General Education Core)	3
XXX XXX	Humanities (from the General Education Core)	3

Credits 25

Total Credits 124

¹ May be taken during the freshman year upon the approval of the advisor.

Teacher Licensure Endorsement in Chemistry

Students wishing to pursue a career in teaching must take the following steps:

1. Follow the curriculum for the liberal arts degree in Chemistry.
2. Use the elective hours for professional courses.
3. See the academic advisor in their major department.
4. See the academic advisor in the Department of Secondary Education and School Leadership in the Bozeman Education Building, Room 200.
5. Take the PRAXIS test and make a passing score. (See the School of Education PRAXIS coordinator, JBB 125.)
6. Take the following professional education courses (18 semester hours) plus student teaching (12 semester hours).

Code	Title	Credits
EDU 201	Foundations of Education	3
SED 233	Seminar in Assessment and Evaluation	3
SED 380	Foundations of Secondary School Methods and Management Instruction	3
SED 384	Curriculum & Instructional Procedures in Mathematics	3
SED 486	Human Growth and Development	3
SED 499	Directed Teaching (internship)	12