

Teaching Specialty - Chemistry

Major Requirements

Major: Chemistry Education

Degree Type: B.A. or B.S.

Required Degree Credits to Graduate: 136

General Education Requirements

First Year Experience (F):

HD&E 189	Skills for Academic Success (Students transferring in 24 or more credits do not need to take HD&E 189.)	1
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Communication (C):

ENGL 110	College Composition I	3
ENGL 120	College Composition II	3
ENGL 324	Writing in the Sciences	3
COMM 110	Fundamentals of Public Speaking	3

Quantitative Reasoning (R):

STAT 330	Introductory Statistics	3
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Science & Technology (S):

BIOL 124 & 124L	Environmental Science and Environmental Science Laboratory	4
GEOL 105	Physical Geology	3
GEOL 106	The Earth Through Time	3

Humanities & Fine Arts (A): Select from current general education list 6

Social & Behavioral Sciences (B): Select from current general education list 6

Wellness (W): Select from current general education list 2

Cultural Diversity (D): Select from current general education list

Global Perspectives (G):

GEOL 105	Physical Geology	3
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Total Credits 40

Major Requirements

General Education Requirements 40

Departmental Requirements

GEOL 105L	Physical Geology Lab	1
GEOL 106L	The Earth Through Time Lab	1

Teaching Specialty Requirements

Select one of the following: 4

BIOL 150 & 150L	General Biology I and General Biology I Laboratory	
BIOL 151 & 151L	General Biology II and General Biology II Laboratory	
BIOC 460	Foundations of Biochemistry and Molecular Biology I	3
CHEM 341 & 341L	Organic Chemistry I and Organic Chemistry I Laboratory	4
CHEM 342 & 342L	Organic Chemistry II and Organic Chemistry II Laboratory	4
CHEM 364	Physical Chemistry I	3
CHEM 365	Physical Chemistry II	3
CHEM 425	Inorganic Chemistry I	3
CHEM 431 & 431L	Analytical Chemistry I and Analytical Chemistry I Laboratory	5
CHEM 491	Seminar (Senior Capstone)	2

PHYS 251 & 251L	University Physics I and University Physics I Laboratory	5
PHYS 252 & 252L	University Physics II and University Physics II Laboratory	5
MATH 165	Calculus I	4
MATH 166	Calculus II	4
MATH 259 or MATH 265	Multivariate Calculus Calculus III	3-4
MATH 266	Introduction to Differential Equations	3
Select sequence A or sequence B:		8
Sequence A:		
CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory	
CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	
Sequence B:		
CHEM 150 & CHEM 160	Principles of Chemistry I and Principles of Chemistry Laboratory I	
CHEM 151 & CHEM 161	Principles of Chemistry II and Principles of Chemistry Laboratory II	
Professional Education Requirements		
EDUC 321	Introduction to Teaching	3
EDUC 322	Educational Psychology	3
EDUC 451	Instructional Planning, Methods and Assessment	3
EDUC 481	Classroom Practice Methods of Teaching I: (Science)	3
EDUC 485	Student Teaching Seminar	1
EDUC 486	Classroom Management for Diverse Learners	3
EDUC 487	Student Teaching	9
EDUC 488	Applied Student Teaching	3
EDUC 489	Teaching Students of Diverse Backgrounds	3
Total Credits		136

Degree Requirements and Notes

- Courses taken P/F may not be used to satisfy any requirements.
- GPA of 2.75 or better in the teaching specialty is required for placement in student teaching and exit from the program.
- A grade of 'C' or better is required in all Professional Education Requirement courses.
- A GPA of 2.75 or better in professional education as well as passing the appropriate Praxis II exam are required to exit the program.
- See School of Education (<https://www.ndsu.edu/education>) for admission requirements.