

# Chemistry Education

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## Department Information

- **Department Location:**  
Katherine Kilbourne Burgum Family Life, 4-H Center
- **Department Phone:**  
701-231-7921
- **Department Web Site:**  
[www.ndsu.edu/education/](http://www.ndsu.edu/education/)
- **Credential Offered:**  
B.S.; B.A.
- **Official Program Curriculum:**  
[bulletin.ndsu.edu/undergraduate/program-curriculum/chemistry-education/](http://bulletin.ndsu.edu/undergraduate/program-curriculum/chemistry-education/)

Chemistry involves the study of the composition, structure, properties and interactions of matter. Chemistry is often considered a central or enabling science, because it is foundational to understanding other scientific disciplines.

## The Program

Candidates in the chemistry education major are prepared to teach a diverse curriculum to a diverse student population. The chemistry education student should work closely with their advisor to be sure that the general education courses taken will provide a strong foundation for advanced courses in the major.

## Professional Education Courses

Students have to enroll in the 300-level professional education courses before applying to be formally admitted to the School of Education (SOE). Prior to enrolling in the 400-level courses, students must complete the application for admission to the SOE; attain a minimum of a 2.75 grade point average overall in their course work and education courses; and pass the Praxis Core Academic Skills for Educators exam(s). Requirements for admission can be found on the School of Education website (<https://www.ndsu.edu/education>).

## Student Teaching

Student teaching is the culmination of the teacher preparation program. Students have the opportunity to apply knowledge and skills acquired in college courses under the supervision of an experienced chemistry educator.

## Student Advisement

Students will be assigned individual advisors who will work with them closely in program planning and in other ways to advise and assist them. Students are encouraged to seek their advisor's help whenever needed.

## Certification

Upon completing this program, graduates are eligible for teacher licensure from the North Dakota Education Standards and Practices Board (ESPB). The program is accredited by the Council for the Accreditation of Educator Preparation (CAEP).

## Career OPPORTUNITIES

Students who major in chemistry education get hired to teach physical science and chemistry at the high school level. To expand their choices, students can elect to double major in chemistry education and chemistry or add coursework in other science disciplines to increase teacher licensure areas. One can also work in industry with the chemistry major.

Please note this is a sample plan of study and not an official curriculum. Actual student schedules for each semester will vary depending on start year, education goals, applicable transfer credit, and course availability. Students are encouraged to work with their academic advisor on a regular basis to review degree progress and customize an individual plan of study.

First Year		
Fall	Credits Spring	Credits
BIOL 124 & BIOL 100L	4 CHEM 122 or 151 (Must be matching lab with lecture)	3
CHEM 121 or 150 (Must be matching lab with lecture)	3 CHEM 122L or 161 (Must be matching lab with lecture)	1
CHEM 121L or 160	1 COMM 110	3

ENGL 110 (or 120 College Composition II based on placement)	4	ENGL 120	3
GEOL 105 & 105L	4	GEOL 106 & 106L	4
		Humanities & Fine Arts Gen Ed*	3
	16		17
<b>Second Year</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHEM 341 & 341L	4	CHEM 342 & 342L	4
EDUC 321	3	EDUC 322	3
MATH 165	4	MATH 166	4
PHYS 211 & 211L	4	PHYS 212 & 212L	4
Wellness Gen Ed	2	Apply to the School of Education	
Pass Praxis Core Academic Skills Exam			
	17		15
<b>Third Year</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
BIOL 150 & 150L	4	BIOC 260	4
CHEM 465	4	CHEM 425	3
EDUC 451	3	EDUC 481	3
Social & Behavioral Science Gen Ed*	3	EDUC 486	3
Humanities & Fine Arts Gen Ed*	3	Social & Behavioral Science Gen Ed*	3
	17		16
<b>Fourth Year</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
CHEM 431 & 431L	5	EDUC 485	1
EDUC 482	3	EDUC 487	9
EDUC 489	3	EDUC 488	3
ENGL 324	3		
STAT 330	3		
Apply for Student Teaching			
Complete PLT (grades 7-12) Exam			
Complete Subject Area Assessment Exam			
	17		13
Total Credits: 128			

\* One of these General Education courses needs to be selected from Category D - Cultural Diversity.