

**COLLEGE OF HUMAN DEVELOPMENT & EDUCATION**

**MAJOR: CHEMISTRY EDUCATION**

**ACADEMIC YEAR: 2013-2014**

**DEGREE TYPE: B.A. or B.S.**

**REQUIRED DEGREE CREDITS TO GRADUATE: 136**

**GENERAL EDUCATION REQUIREMENTS – 40 CREDITS**

**Lower Division Requirements – 37 Credits**

First Year Experience (F) - 1 Credit

HD&E	189	Skills for Academic Success	1 cr
Students transferring in 24 or more credits do not need to take HD&E 189.			

Communication (C) - 9 Credits

ENGL	110	College Composition I	3 cr
ENGL	120	College Composition II	3 cr
COMM	110	Fund of Public Speaking	3 cr

Quantitative Reasoning (R) - 3 Credits

STAT	330	Introductory Statistics	3 cr
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Science & Technology (S) - 10 Credits

BIOL	124/L	Environmental Science/Lab	3/1 cr
GEOL	105	Physical Geology	3 cr
GEOL	106	The Earth Through Time	3 cr

Humanities & Fine Arts (A) - 6 Credits

Select from current general education courses [www.ndsu.edu/registrar/gened/](http://www.ndsu.edu/registrar/gened/)

Social & Behavioral Sciences (B) - 6 Credits

Select from current general education courses [www.ndsu.edu/registrar/gened/](http://www.ndsu.edu/registrar/gened/)

Wellness (W) - 2 Credits

Select from current general education courses [www.ndsu.edu/registrar/gened/](http://www.ndsu.edu/registrar/gened/)

Cultural Diversity (D)

Select from current general education courses [www.ndsu.edu/registrar/gened/](http://www.ndsu.edu/registrar/gened/)

Global Perspectives (G)

GEOL	105	Physical Geology	
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**Upper Division Requirements - Writing – 3 Credits**

ENGL	324	Writing in the Sciences	3 cr
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**Bachelor of Arts (BA) Degree** – An additional 6 credits of Humanities and Social Sciences and two years of one modern foreign language at the college level or equivalent are required.

**PROFESSIONAL EDUCATION REQUIREMENTS - 31 CREDITS**

EDUC	321	Introduction to Teaching	3 cr
EDUC	322	Educational Psychology	3 cr
EDUC	451	Inst. Planning, Methods & Assess	3 cr
EDUC	481	Classroom Prac/Meth of Teach I-Science	3 cr
EDUC	485	Student Teaching Seminar	1 cr
EDUC	486	Classroom Mgt. for Diverse Learn	3 cr
EDUC	487	Student Teaching	9 cr
EDUC	488	Applied Student Teaching	3 cr
EDUC	489	Native American & Multicultural Instructional Prac	3 cr

**TEACHING SPECIALITY REQUIREMENTS – 63 CREDITS**

BIOL	150/Lor	General Biology I/Lab	3/1 cr
	151/L	General Biology II/Lab	
BIOC	460	Foundations of Biochemistry	3 cr
CHEM	341/L	Organic Chemistry I/Lab	3/1 cr
CHEM	342/L	Organic Chemistry II/Lab	3/1 cr
CHEM	364	Physical Chemistry I	3 cr
CHEM	365	Physical Chemistry II	3 cr
CHEM	425	Inorganic Chemistry I	3 cr
CHEM	431/L	Analytical Chemistry I/Lab	3/2 cr
CHEM	491	Seminar (Senior Capstone)	2 cr
PHYS	251/L	University Physics I/Lab	4/1 cr
PHYS	252/L	University Physics II/Lab	4/1 cr
MATH	165	Calculus I	4 cr
MATH	166	Calculus II	4 cr
MATH	259 or	Multivariate Calculus	3or 4 cr
	265	Calculus III	
MATH	266	Intro to Differential Equations	3 cr

**Choose Sequence A or B**

**Sequence A**

CHEM	121/L	General Chemistry I/Lab	3/1 cr
CHEM	122/L	General Chemistry II/Lab	3/1 cr

**Sequence B**

CHEM	150/160	Principles of Chemistry I/Lab	3/1 cr
CHEM	151/161	Principles of Chemistry II/Lab	3/1 cr

**Departmental Requirements – 2 Credits**

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

**Degree Requirements and Notes:**

- Courses taken *Pass/Fail* 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 for admission requirements.