# **Chemistry Education**

### Degree Type

Bachelor of Arts

### Objective:

To prepare students to teach content courses in grades 6-12 and meet the requirements for Idaho certification

Administrators: Chemistry and Undergraduate Education Department Chairs

### Secondary Program Requirements:

**Requirements:** 39 credits in professional education **and** endorsement specific requirements:

- Chemistry Endorsement Area 47 credits
- Chemistry First Endorsement 34 credits and selection of a second endorsement
- Chemistry Second Endorsement 26 credits and selection of a first endorsement

### Professional Education Core Courses: 39 credits

ltem #	Title	Credits
EDUC1100	Introduction to Education	1
EDUC2110	Educational Psychology	3
EDUC2250	Cultural Diversity in Education	2
EDUC2550	Innovative Instruction	3
EDUC2960	Introduction to Instructional Design	1
EDUC3090	Pedagogy of Writing in 6-12 Schools	3
EDUC3150	Education of Exceptional Children	3
EDUC3410	English Language Learners and Content Literacy in Secondary	3
	Classrooms	
EDUC3510	Teaching Methods in Secondary Classrooms	3
EDUC3750	Classroom Management in Secondary Schools	2
	Special methods courses in first and second endorsements or	
	endorsement area	
EDUC3920	Foundations of Education	2
EDUC4850	Secondary School Start-Up	1
	EDUC4860 or EDUC4870	11
EDUC4950	Seminar/Capstone	1

Courses must be taken at Northwest Nazarene University: <u>EDUC1100</u>, <u>EDUC2550</u>, <u>EDUC2960</u>, <u>EDUC3090</u>, <u>EDUC3410</u>, <u>EDUC3510</u>, <u>EDUC3750</u>, <u>EDUC3920</u>, <u>EDUC4850</u>, <u>EDUC4860</u>, <u>EDUC4870</u>, <u>EDUC4950</u>, Special methods courses in first and second endorsements or endorsement area.

## **Chemistry Endorsement Area**

Required courses: 47 credits of chemistry and related courses, including two credits in secondary science methods

ltem #	Title	Credits
BIOL2220	General Biology I	3
BIOL2220L	General Biology I Laboratory	1
EDUC3640	Teaching Science in Secondary Schools	2
CHEM2210	General Chemistry I	3
CHEM2210L	General Chemistry I Laboratory	1
CHEM2220	General Chemistry II	3
CHEM2220L	General Chemistry II Laboratory	1
CHEM2610	Analytical Chemistry	3
CHEM2610L	Analytical Chemistry Laboratory	1
CHEM3210	Organic Chemistry I	3
CHEM3210L	Organic Chemistry I Laboratory	1
CHEM3220	Organic Chemistry II	3
CHEM3220L	Organic Chemistry II Laboratory	1
CHEM3310	Inorganic Chemistry	3
CHEM3510	Thermodynamics and Kinetics	3
CHEM3620	Integrated Laboratory I	1
CHEM4610	Integrated Laboratory II	1
CHEM4970	Research	1-6
CHEM4980	Senior Seminar/Capstone	1
MATH2510	Calculus I	4
PHYS1110	College Physics I	3
PHYS1110L	College Physics I Laboratory	1
PHYS1120	College Physics II	3
PHYS1120L	College Physics II Laboratory	1

12 credits in chemistry must be taken at NNU, including <u>CHEM4970</u> and <u>CHEM4980</u>.

# **Chemistry First Endorsement**

Must select a second endorsement. See chart on <u>Department of Education</u> page.

**Required courses:** 34 credits of chemistry and related courses, including two credits in secondary science methods.

ltem #	Title	Credits
CHEM2210	General Chemistry I	3
CHEM2210L	General Chemistry I Laboratory	1
CHEM2220	General Chemistry II	3
CHEM2220L	General Chemistry II Laboratory	1
CHEM2610	Analytical Chemistry	3
CHEM2610L	Analytical Chemistry Laboratory	1
CHEM3210	Organic Chemistry I	3
CHEM3210L	Organic Chemistry I Laboratory	1
CHEM3220	Organic Chemistry II	3
CHEM3220L	Organic Chemistry II Laboratory	1
CHEM3310	Inorganic Chemistry	3
CHEM3510	Thermodynamics and Kinetics	3
CHEM3620	Integrated Laboratory I	1
CHEM4970	Research	1-6
CHEM4980	Senior Seminar/Capstone	1
MATH2510	Calculus I	4
EDUC3640	Teaching Science in Secondary Schools	2

12 credits in chemistry must be taken at NNU, including <u>CHEM4970</u> and <u>CHEM4980</u>.

## **Chemistry Second Endorsement**

Must select a first endorsement. See chart on **Department of Education** page.

Required Courses: 26 credits in chemistry, including two credits in secondary science methods

ltem #	Title	Credits
CHEM2210	General Chemistry I	3
CHEM2210L	General Chemistry I Laboratory	1
CHEM2220	General Chemistry II	3
CHEM2220L	General Chemistry II Laboratory	1
CHEM2610	Analytical Chemistry	3
CHEM2610L	Analytical Chemistry Laboratory	1
CHEM3210	Organic Chemistry I	3
CHEM3210L	Organic Chemistry I Laboratory	1
CHEM3220	Organic Chemistry II	3
CHEM3220L	Organic Chemistry II Laboratory	1
CHEM3310	Inorganic Chemistry	3
CHEM3620	Integrated Laboratory I	1
EDUC3640	Teaching Science in Secondary Schools	2

#### **Program Certification Requirements:**

- 1. Complete all requirements for a baccalaureate degree.
- 2. Complete a subject endorsement area of at least 45 semester credit hours as recommended by the subject department and approved by the Department of Education, or complete a first endorsement of at least 30 semester credit hours and a second endorsement of at least 20 semester credit hours as recommended by the subject departments and approved by the Department of Education.
- 3. Complete requirements of the Educator Preparation Program in effect at the time of admission to Educator Preparation as well as any additional requirements if required by changes in the standards of state regulatory agencies.
- 4. Complete all required education courses in the secondary program with a grade of B- (2.7) or better.
- 5. Complete all required content courses with a grade of C (2.0) or better.
- 6. Maintain a 3.0 or better cumulative GPA.
- 7. Pass the Praxis content test(s) in endorsement area or first and second endorsements.

#### **Total Credits**

73-86