

Chemistry Education, B.S.

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Requirements

The degree in chemistry education prepares a student to teach chemistry in secondary education. Students that complete this degree receive endorsements to teach chemistry. Completion of this program is dependent upon being accepted into the Secondary Education program through the School of Education. There is a great demand for teachers in chemistry and employment opportunities are excellent.

In obtaining this degree, students will learn how to:

Use modern scientific instruments and interpret results

Apply principles used in chemistry to solve everyday problems

Think analytically

Use problem solving skills

Categorize information

Apply learned math skills

Develop laboratory skills

Total Program Credits: 120

Matriculation Requirements:		
1.	Students are admitted directly to the Baccalaureate degree program in Chemistry Education upon acceptance to the Secondary Education Program.	
2.	Students must obtain the departmental Advisor's signature on an approved program plan prior to enrollment in their second semester of study.	
Secondary Education Requirements:		
1.	ENGL and MATH QL courses must have a grade C or higher.	
2.	GPA of 3.0 or higher with no grade lower than a C in content area courses.	
3.	Completion of all General Education requirements and 70% of content area courses.	
4.	Pass LiveScan Criminal Background Check.	
General Education Requirements:		38 Credits
	ENGL 1010 Introduction to Academic Writing CC	3
or	ENGL 1005 Literacies and Composition Across Context CC (5.0)	
	ENGL 2010 Intermediate Academic Writing CC	3
	MATH 1210 Calculus I QL	4
Complete one of the following:		3
	HIST 1700 American Civilization AS (3.0)	
	HIST 2700 US History to 1877 AS (3.0)	
and	HIST 2710 US History since 1877 AS (3.0)	
	HIST 1740 US Economic History AS (3.0)	
	POLS 1000 American Heritage AS (3.0)	
	POLS 1100 American National Government AS (3.0)	
Complete the following:		
	PHIL 2050 Ethics and Values IH	3
	HLTH 1100 Personal Health and Wellness TE (2.0)	
or	EXSC 1097 Fitness for Life TE	2
Distribution Courses:		
	Biology	3
	CHEM 1210 Principles of Chemistry I PP ¹	4

CHEM 1220	Principles of Chemistry II PP ²	4
Humanities		3
Fine Arts		3
Social/Behavioral Science		3
Discipline Core Requirements:		77 Credits
Chemistry Discipline Core Courses:		
CHEM 1215	Principles of Chemistry I Laboratory ³	1
CHEM 1225	Principles of Chemistry II Laboratory ⁴	1
CHEM 1250	Chemistry Cornerstone- Research and Careers	1
CHEM 2310	Organic Chemistry I	4
CHEM 2320	Organic Chemistry II	4
CHEM 2315	Organic Chemistry I Laboratory	1
CHEM 2325	Organic Chemistry II Laboratory	1
CHEM 3000	Analytical Chemistry	2
CHEM 3005	Analytical Chemistry Laboratory	2
CHEM 3060	Physical Chemistry I WE	4
CHEM 3065	Physical Chemistry I Lab (1)	
CHEM 3600	Biological Chemistry	3
MATH 1220	Calculus II	4
PHYS 2210	Physics for Scientists and Engineers I PP	4
PHYS 2215	Physics for Scientists and Engineers I Lab	1
PHYS 2220	Physics for Scientists and Engineers II PP	4
PHYS 2225	Physics for Scientists and Engineers II Lab	1
SCIE 4210	Science Teaching Methods I	3
SCIE 4220	Teaching Methods in Science II	3
Education Discipline Core Courses: Must be completed with a B- or higher		
EDSC 1010	Introduction to Education	2
EDSC 3000	Educational Psychology	3
EDSC 325G	Equitable Technology Integration GI	2
EDSP 340G	Exceptional Students GI	2
EDSC 4200	Classroom Management I	2
EDSC 4250	Classroom Management II	2
EDSC 4440	Content Area Literacies	3
EDSC 445G	Multicultural Instruction ESL GI	3
EDSC 455G	Secondary Curriculum Instruction and Assessment GI	3
EDSC 4850	Student Teaching Secondary	8
EDSC 4990	Teacher Performance Assessment Project WE	2
Chemistry Elective Requirement:		5
Complete a minimum of 5 credit hours from the following list		
CHEM 3020	Environmental Chemistry (3)	

Chemistry Education, B.S.

CHEM 3025	Environmental Chemistry Laboratory (1)	
CHEM 3100	Advanced Inorganic Chemistry (4)	
CHEM 3115	Advanced Inorganic Chemistry Lab (1)	
CHEM 3605	Biological Chemistry Lab (1)	
CHEM 3800	Energy Use on Earth (3)	
CHEM 4000	Instrumental Analysis WE (2)	
CHEM 4005	Instrumental Analysis Laboratory (2)	
CHEM 4600	Structure Determination (3)	
CHEM 4605	Structure Determination Laboratory (1)	
CHEM 495R	Advanced Topics in Organic Chemistry (3)	
CHEM 496R	Special Topics in Chemistry (1-4)	
	or advisor-approved electives	

Graduation Requirements:

1. Completion of a minimum of 120 semester credits with a minimum of 40 upper-division credits.
2. Overall Grade of 3.0 (B) or above with no grade lower than a C or better in major required content courses and no grade lower than a B- in Licensure and Methods courses.
3. Residency hours -- minimum of 30 credit hours through course attendance at UVU, with at least 10 hours earned in the last 45 hours.
4. Completion of GE and specified departmental requirements.
5. A minimum of 52 credit hours must be in the major with a minimum of 20 credits taken at UVU. A minimum of 24 chemistry and physics credits must be upper-division.
6. Complete all chemistry courses with a minimum grade of "C-" or better.
7. Successful completion of at least one Global/Intercultural course.

Footnote:

1-To be taken with [CHEM 1215](#) Principles of Chemistry I Laboratory

2-To be taken with [CHEM 1225](#) Principles of Chemistry II Laboratory

3-To be taken with [CHEM 1210](#) Principles of Chemistry I PP

4-To be taken with [CHEM 1220](#)
Principles of Chemistry II PP

Chemistry Education, B.S.**Graduation Plan**

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in [Wolverine Track](#).

Semester 1	Course Title	Credit Hours
MATH 1210	Calculus I QL	4
CHEM 1210	Principles of Chemistry I PP	4
CHEM 1215	Principles of Chemistry I Laboratory	1
CHEM 1250	Chemistry Cornerstone- Research and Careers	1
ENGL 1010	Introduction to Academic Writing CC	3
HLTH 1100 or EXSC 1097	Personal Health and Wellness TE or Fitness for Life TE	2
	Semester total:	15
Semester 2	Course Title	Credit Hours
MATH 1220	Calculus II	4
CHEM 1220	Principles of Chemistry II PP	4
CHEM 1225	Principles of Chemistry II Laboratory	1
ENGL 2010	Intermediate Academic Writing CC	3
	Social/Behavioral Sci. Distribution	3
	Semester total:	15
Semester 3	Course Title	Credit Hours
CHEM 2310	Organic Chemistry I	4
CHEM 2315	Organic Chemistry I Laboratory	1
PHYS 2210	Physics for Scientists & Engineers I PP	4
PHYS 2215	Physics for Scientists & Engineers I Lab	1
	Biology Distribution	3
	American Institutions	3
	Semester total:	16
Semester 4	Course Title	Credit Hours
CHEM 2320	Organic Chemistry II	4
CHEM 2325	Organic Chemistry II Laboratory	1
CHEM 3000	Analytical Chemistry	2
CHEM 3005	Analytical Chemistry Laboratory	2
PHYS 2220	Physics for Scientists & Engineers II PP	4
PHYS 2225	Physics for Scientists & Engineers II Lab	1
	Humanities Distribution	3
	Semester total:	17
Semester 5	Course Title	Credit Hours
CHEM 3060	Physical Chemistry I WE	4
CHEM 3065	Physical Chemistry I Lab	1
CHEM 3600	Biological Chemistry	3

PHIL 2050 or PHIL 205G	Ethics and Values IH GI	3
EDSC 1010	Introduction to Education	2
	Fine Arts Distribution	3
	Semester total:	16
Semester 6	Course Title	Credit Hours
EDSC 3000	Educational Psychology	3
EDSP 340G	Exceptional Students GI	2
EDSC 455G	Secondary Curriculum Instruction and Assessment GI	3
SCIE 4210	Science Teaching Methods I	3
	Chemistry Elective	3
	Semester total:	14
Semester 7	Course Title	Credit Hours
EDSC 4200	Classroom Management I	2
EDSC 4440	Content Area Literacies	3
EDSC 445G	Multicultural Instruction ESL GI	3
EDSC 325G	Equitable Technology Integration GI	2
SCIE 4220	Teaching Methods in Science II	3
	Chemistry Elective	2
	Semester total:	15
Semester 8	Course Title	Credit Hours
EDSC 4850	Student Teaching Secondary	8
EDSC 4250	Classroom Management II	2
EDSC 4990	Teacher Performance Assessment Project WE	2
	Semester total:	12
	Degree total:	120