

Bachelor of Education in Chemistry Secondary Education

University Core Requirements		General Education Requirements <i>(at least 2 disciplines must be represented in each area)</i>	
Course	Hours	Course	Hours
WU 101: Washburn Experience	3	Humanities	9
EN 101: First Year Writing	3	Social Sciences	9
MA 116: College Algebra (See note 1)	3	Natural Sciences (See note 2)	9
EN 300: Advanced College Writing	3	Subtotal	27
Subtotal	12		
Chemistry Content Area Courses		Education Core Courses	
CH 151: Fundamentals Of Chemistry I	5	ED 155: Teaching Learning and Leadership*	3
CH 152: Fundamentals Of Chemistry II	5	ED 285: Educational Psychology	3
CH 340: Organic Chemistry I	3	ED 165: Ed. 1- Examining Teaching as a Profession*	3
CH 342: Organic Chemistry Lab I	2	ED 275: Ed. 2 - Exploring Teaching as a Profession*	3
CH 320: Analytical Chemistry	3	ED 295: Ed. 3 - Experiencing Teaching as a Profession*	3
CH 321: Analytical Chemistry Lab	1	ED 395: Ed. 4 - Extending Teaching as a Profession*	3
CH 350: Biochemistry I	3	ED 354: Curriculum and Assessment*	3
CH 351: Biochemistry Lab I	2	ED 302: Teaching Exceptional Learners	3
CH 381: Physical Chemistry I	3	ED 352: Methods of Teaching Science, or ED 350: General Secondary Methods	3
CH 385: Physical Chemistry Laboratory	1	ED 410: Secondary Student Teaching	12
CH 386: Inorganic Chemistry	3	Subtotal	39
CH 345: Inorganic Chemistry Lab	2		
CH 390: Chemistry Research	2		
CH 391: Chemistry Seminar	1		
Subtotal	36		
Correlated Courses			
PS 281: General Physics I	5		
PS 282: General Physics II	5		
MA 151: Calculus I (See note 3)	5		
Subtotal	15		
Total		120	

* New courses

Notes:

1. MA 117, MA 123, or MA 151 can satisfy the University Core Requirement in place of MA 116. If a student can bypass the prerequisite courses and take MA 151, the student may end up with a total of 117 credits and will need to take another elective course to meet the minimum requirement of 120 credits for a bachelor degree.
2. PS 281 and MA 151 together will satisfy the 9-credit Natural Sciences component of the General Education Requirements.
3. This program requires MA 151 which has a prerequisite of MA 117 **or** MA 123 **or** an ACT Math score of 28 (or higher) **or** a satisfactory math placement exam score. Depending on the student's level of readiness in mathematics, the total number of credits may be higher than 120.

Sample 4-Year Plan for Chemistry Secondary Education

Bachelor of Education

120 Hours (entering students eligible to enroll in MA 151 and EN 101)

Freshman

Fall		Spring	
CH 151: Fundamentals of Chemistry I	5	CH 152: Fundamentals of Chemistry II	5
MA 151: Calculus I	5	CN 150: Public Speaking	3
EN 101: First Year Writing	3	PS 281: General Physics I	5
WU 101: Washburn Experience	3	ED 155: Teaching Learning and Leadership	3
Subtotal	16	Subtotal	16

Sophomore

Fall		Spring	
CH 340: Organic Chemistry I	3	Soc Sci General Education	3
CH 342: Organic Chemistry Lab I	2	Soc Sci General Education	3
ED 165: Ed. 1 - Examining Teaching as a Profession	3	ED 275: Ed. 2 - Exploring Teaching as a Profession	3
PS 282: General Physics II	5	ED 285: Educational Psychology	3
Soc Sci General Education	3	AR/MU/TH General Education	3
Subtotal	16	Subtotal	15

Junior

Fall		Spring	
CH 381: Physical Chemistry I	3	CH 385: Physical Chemistry Lab	1
CH 350: Biochemistry I	3	CH 390: Chemistry Research	2
CH 351: Biochemistry Lab I	2	EN 300: Advanced College Writing	3
CH 320: Analytical Chemistry	3	Humanities General Education	3
CH 321: Analytical Chemistry Lab	1	ED 295: Ed. 3 - Experiencing Teaching as a Profession	3
ED 302: Teaching Exceptional Learners	3	ED 395: Ed. 4 - Extending Teaching as a Profession	3
Subtotal	15	Subtotal	15

Senior

Fall		Spring	
CH 386: Inorganic Chemistry	3	ED 410: Secondary Student Teaching	12
CH 345: Inorganic Chemistry Lab	2	CH 391: Chemistry Seminar	1
ED 354: Curriculum and Assessment	3		
ED 352: Methods of Teaching Science	3		
Elective	3		
Subtotal	14	Subtotal	13

Total credits	120
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Sample 4-Year Plan for Chemistry Secondary Education

Bachelor of Education

123 Hours (entering students eligible to enroll in MA 116 and EN 101)

Freshman

Fall		Spring	
CH 151: Fundamentals of Chemistry I	5	CH 152: Fundamentals of Chemistry II	5
MA 116: College Algebra	3	CN 150: Public Speaking	3
EN 101: First Year Writing	3	MA 123: Pre-Calculus	3
WU 101: Washburn Experience	3	ED 155: Teaching Learning and Leadership	3
Soc Sci General Education	3		
Subtotal	17	Subtotal	14

Sophomore

Fall		Spring	
CH 340: Organic Chemistry I	3	Soc Sci General Education	3
CH 342: Organic Chemistry Lab I	2	PS 281: General Physics I	5
ED 165: Ed. 1 - Examining Teaching as a Profession	3	ED 275: Ed. 2 - Exploring Teaching as a Profession	3
CH 320: Analytical Chemistry	3	ED 285: Educational Psychology	3
CH 321: Analytical Chemistry Lab	1		
MA 151: Calculus I	5		
Subtotal	17	Subtotal	14

Junior

Fall		Spring	
CH 381: Physical Chemistry I	3	CH 385: Physical Chemistry Lab	1
CH 350: Biochemistry I	3	CH 390: Chemistry Research	2
CH 351: Biochemistry Lab I	2	EN 300: Advanced College Writing	3
ED 302: Teaching Exceptional Learners	3	ED 395: Ed. 4 - Extending Teaching as a Profession	3
PS 282: General Physics II	5	ED 295: Ed. 3 - Experiencing Teaching as a Profession	3
		Humanities General Education	3
Subtotal	16	Subtotal	15

Senior

Fall		Spring	
CH 386: Inorganic Chemistry	3	ED 410: Secondary Student Teaching	12
CH 345: Inorganic Chemistry Lab	2	CH 391: Chemistry Seminar	1
ED 354: Curriculum and Assessment	3	AR/MU/TH General Education	3
ED 352: Methods of Teaching Science	3		
Soc Sci General Education	3		
Subtotal	14	Subtotal	16

Total credits	123
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