## **CHEMISTRY SECONDARY EDUCATION, BED**

## **Degree Requirements**

In addition to the requirements stated below, students must complete 34-35 hours of General Education (https://catalog.washburn.edu/ undergraduate/programs-degrees-graduation-requirements/generaleducation-requirements/), all requirements for a Bachelor of Education (https://catalog.washburn.edu/undergraduate/college-arts-sciences/ degrees/bachelor-education/) degree, and any additional hours needed to reach the minimum 120 credit hours required for graduation. Some of the courses below may also fulfill general education or other degree requirements. Please see your advisor for more information.

Students seeking certification to teach Chemistry must also be formally admitted to the University's Professional Teacher Education (https:// catalog.washburn.edu/undergraduate/school-applied-studies/education/ #admissiontext) Programs.

Code	Title	Hours	
Required Courses Inside Department			
CH 151	Fundamentals of Chemistry I	5	
CH 152	Fundamentals of Chemistry II	5	
CH 320	Analytical Chemistry	3	
CH 321	Analytical Chemistry Lab	1	
CH 340	Organic Chemistry I	3	
CH 342	Organic Chemistry Lab I	2	
CH 350	Biochemistry I	3	
CH 351	Biochemistry Lab I	2	
CH 381	Physical Chemistry I	3	
CH 385	Physical Chemistry Lab	1	
CH 386	((consult department chairperson))	3	
CH 345	((consult department chairperson))	2	
CH 390	Chemistry Research	2	
CH 391	((consult department chairperson))	1	
Subtotal		36	
Required Courses	In Other Departments		
MA 151	Calculus & Analytic Geometry I <sup>1</sup>	5	
PS 281	General Physics I	5	
PS 282	General Physics II	5	
Subtotal		15	
Required Courses Inside Education Department			
ED 155	Teaching, Learning, Leadership	3	
ED 165	Ed. 1, Examining Teaching as a Profession: Diversity 1, Literacy 1, Technology 1	3	
ED 275	Ed. 2 Exploring Teaching as a Profession (Classroom Management 1, Diversity 2, Technology 2) Ed. 2	3	
ED 285	Educational Psychology	3	
ED 295	Ed. 3 Experiencing Teaching as a Profession (Classroom Management 2, Diversity 3, Literacy 2)	3	
ED 302	Teaching Exceptional Learners	3	
ED 350	General Secondary Methods	3	

Total Hours		90
Subtotal		39
ED 410	Secondary Student Teaching	12
ED 395	Ed. 4 Extending Teaching as a Profession (Classroom Management 3, Literacy 3, Technology 3)	3
ED 354	Curriculum and Assessment	3

<sup>&</sup>lt;sup>1</sup> 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.