

CHEMISTRY
Bachelor of Arts
(B.A.)

Requirements for Major: At least 32 credit hours in the department, including:

CH 151 Fundamentals of Chemistry I; 5 credit hours	Offered:	Fall
CH 152 Fundamentals of Chemistry II; 5 credit hours		Spring
CH 340 Organic Chemistry I; 3 credit hours		Fall
CH 341 Organic Chemistry II; 3 credit hours		Spring
CH 342 Organic Chemistry Laboratory I; 2 credit hours		Fall
CH 343 Organic Chemistry Laboratory II; 2 credit hours		Spring
CH 390 Undergraduate Chemical Research; 1 credit hour		Fall/Spring/Summer
CH 391 Chemistry Seminar; 1 credit hour		Spring

Two courses selected from:

CH 320 Analytical Chemistry		Fall
CH 350 Biochemistry I		Fall
CH 352 Biochemistry II		Spring
CH 360 Descriptive Inorganic Chemistry		Fall-Odd Year
CH 380 Fundamentals of Physical Chemistry or CH 381 Physical Chemistry I		Fall-Odd Year

Two courses selected from:

CH 321 Analytical Chemistry Laboratory (1)		Fall
CH 345 Inorganic Chemistry Laboratory (2)		Spring-Odd Year
CH 346 Instrumental Analysis (2)		Spring-Odd Year
CH 347 Physical Chemistry Concepts Lab (1)		Spring-Even Year
CH 351 Biochemistry Laboratory I (2)		Fall
CH 353 Biochemistry Laboratory II (2)		Spring

Two correlated courses:

PS 261 College Physics I (General Education course) & PS 262 College Physics II; or PS261 Fall/SP262 Spring PS 281 General Physics I (General Education course) & PS 282 General Physics II; or PS281 Spring/PS282 Fall
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Notes

Research (CH 390) must be initiated at least one semester prior to the semester of graduation
A written report of research or internship is required of all majors

General Education Distribution Requirements (BA):

Humanities (15) (GEHU/GECPA) (Max 6 hours/ discipline)	Course Number	Social Sciences (15) (GESS) (Max 6 hours/ discipline)	Course Number	Natural Sciences/ Mathematics (12) (GENS) (Max 8 Hours or 2 Courses/Discipline)	Course Number
Fine Arts (3)		Soc. Science 1 (3)		PS 261 or 281 (3 or 5)	
Humanities 2 (3)		Soc. Science 2 (3)		Nat. Science 2 (3-5)	
Humanities 3 (3)		Soc. Science 3 (3)		Nat. Science 3 (3-5)	
Humanities 4 (3)		Soc. Science 4 (3)		Nat. Science 4 (3-5)	
Humanities 5 (3)		Soc. Science 5 (3)			

Core University/BA-Specific Requirements:

WU 101 (3)* C or Better		Total Hours (120)	
EN 101 (3) C or Better		Hours Outside Major (84)	
EN 300 (3) C or Better		Upper Division (300 and above) (45)	
MA 112 or MA 116 (3)** C or Better		Hours Within Arts and Sciences (99)	
>= 2.0 Overall Cumulative GPA		>= C Grade All Major and Correlated Courses	
FL 102 (4)			

**Students transferring with 24 or more credit hours completed at an accredited post-secondary institution (after graduating from High School) with a GPA of 2.0 or higher are exempt from this requirement*

***May be waived if the student successfully places into a higher-level mathematics course with an ACT score of 25 or higher and then successfully completes that course with a grade of C or higher or if a student presents an ACT score in mathematics of at least 28 (SAT of at least 640).*

Please direct questions to:

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<http://www.washburn.edu/chemistry>

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**Sample 4-Year Schedule for Chemistry Major
Bachelor of Arts**

120 Hours

Sample curriculum for students starting in an even numbered academic year. Individual four-year degree plans are developed for each student upon consultation with an academic advisor.

Freshman			
Fall Semester		Spring Semester	
CH 151 – Fundamentals of Chemistry I	5	CH 152 – Fundamentals of Chemistry II	5
MA 116 – College Algebra	3	MA 117 - Trigonometry	3
EN 101 – First Year Writing	3	Soc. Sci. General Education	3
WU 101 – Washburn Experience	3	Humanities General Education	3
TOTAL	14	TOTAL	14
Sophomore			
Fall Semester		Spring Semester	
CH 340 – Organic Chemistry I	3	CH 341 – Organic Chemistry II	3
CH 342 – Organic Chemistry I Lab	2	CH 343 – Organic Chemistry II Lab	2
PS 261 – College Physics I	5	PS 262 – College Physics II	5
Soc. Sci. General Education	3	Humanities General Education	3
Humanities General Education	3	Upper Division Elective	3
TOTAL	16	TOTAL	16
Junior			
Fall Semester		Spring Semester	
CH 320 – Analytical Chemistry*	3	CH 390 – Chemistry Research	1
CH 321 – Analytical Chemistry Lab**	1	CH 346 – Instrumental Analysis**	2
CH 350 – Biochemistry I*	3	EN 300 – Advanced College Writing	3
Upper Division Elective	3	Soc. Sci. General Education	3
Natural Sciences General Education	3	Humanities General Education	3
Upper Division Elective	3	Upper Division Elective	3
TOTAL	16	TOTAL	15
Senior			
Fall Semester		Spring Semester	
FL 101 – Foreign Language I	4	FL 102 – Foreign Language II	4
Natural Sciences General Education	3	CH 391 – Chemistry Seminar	1
Humanities General Education	3	Natural Sciences General Education	3
Soc. Sci. General Education	3	Soc. Sci. General Education – Upper Division	3
Upper Division Elective	2	Upper Division Elective	3
TOTAL	15	TOTAL	14

*Many options: must take at least two

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Required research completed prior to the semester of graduation