

FORENSIC CHEMISTRY
Bachelor of Science (B.S.)
2019-2020

Requirements for Major: At least 39 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 342 Organic Chemistry Laboratory I; 2 credit hours		Fall
CH 341 Organic Chemistry II; 3 credit hours		Spring
CH 343 Organic Chemistry Laboratory II; 2 credit hours		Spring
CH 320 Analytical Chemistry; 3 credit hours		Fall-Even Year
CH 321 Analytical Chemistry Laboratory; 1 credit hour		Fall-Even Year
CH 346 Instrumental Analysis; 2 credit hours		Spring- Odd Year
CH 355 Medicinal Chemistry; 2 credit hours		Pending
CH 350 Biochemistry I; 3 credit hours		Fall
CH 351 Biochemistry Laboratory I; 2 credit hours		Fall
CH 391 Chemistry Seminar; 1 credit hour		Spring
CH 393 Internship OR CH 390 Research; 3 hours credit		Fall/Spring/Summer

Choose any one of the following (lecture and lab):

CH 381 Physical Chemistry I; 3 credit hours	offered:	Spring-Even Year
CH 385 Physical Chemistry Laboratory; 1 credit hour		Spring-Even Year
CH 352 Biochemistry II; 3 credit hours		Spring-Odd Year
CH 353 Biochemistry Laboratory II; 2 credit hours		Spring-Odd Year
CH 386 Inorganic Chemistry; 3 credit hours		Spring-Even Year
CH 345 Inorganic Chemistry Laboratory; 2 credit hours		Fall-Odd Year

Correlated Forensic Science Courses:

CJ 115 Intro to Forensic Investigations; 3 credit hours	offered:	Fall/Spring
CJ 415 Advanced Forensic Investigations; 3 credit hours		Fall/Spring
CJ 416 Applied Forensic Investigations; 2 credit hours		Fall/Spring
CH 323 Advanced Forensic Chemistry; 4 credit hours		Spring
BI 420 Forensic Molecular Biology; 4 credit hours		Pending
CH 202 Professional Forensic Science Seminar; 2 credit hours		Fall

Correlated Natural Science Courses:

PS 261 or PS 281 College Physics I or General Physics I; 5 credit hours	PS261 Fall/PS281 Spring
PS 262 or PS 282 College Physics II or General Physics II; 5 credit hours	PS262 Spring/PS282 Fall
MA 140 Statistics; 3 credit hours	Fall/Spring/Summer
MA 151 Calculus I; 5 credit hours	Fall/Spring
BI 102 General Cellular Biology; 5 credit hours	Fall/Spring
BI 103 General Organismal Biology; 5 credit hours	Fall/Spring
BI 301 General Microbiology; 4 credit hours	Fall/Spring
BI 333 General Genetics; 4 credit hours	Fall/Spring
BI 353 Molecular Genetics; 3 credit hours	Fall

Other

CN 150 Public Speaking; 3 credit hours	Fall/Spring
PH 102 Ethics: Intro. Moral Problems or PH 214 Medical Ethics; 3 cr. hrs.	PH103 Fall/Spring PH214 Fall

A written report of research or internship is required of all majors
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General Education Distribution Requirements (BS):

Humanities (9) (GEHU/GECPA) (Max 6 hours/ discipline)	Course Number	Social Sciences (9) (GESS) (Max 6 hours/ discipline)	Course Number	Natural Sciences/ Mathematics (9) (GENS) (Max 8 Hours or 2 Courses/Discipline)
Fine Arts (3)		Soc. Science 1 (3)		Natural Science Course (4)
Humanities 2 (3)		Soc. Science 2 (3)		MA 151 (5)
Humanities 3 (3)		Soc. Science 3 (3)		

Core University/BS-Specific Requirements:

WU 101 (3)* C or Better		Natural Science Minor (30 – 20 in one Discipline)	
EN 101 (3) C or Better		Hours Outside Major (72)	
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	
		Total Hours (124)	

**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:

Dr. Shaun Schmidt, Chair

Department of Chemistry, Washburn University

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



Sample 4-Year Schedule for Forensic Chemistry Major

Biology concentration

Bachelor of Science

124 Hours

Sample Curriculum for students starting 2019-2020 (Odd) Academic Year.

It is extremely important that students starting in different academic years contact their advisor.

Freshman			
Fall Semester			Spring Semester
CH 151–Fundamentals of Chemistry I	5	CH 152–Fundamentals of Chemistry II	5
CJ 115–Intro to Forensic Investigations	3	<i>Gen Ed Social Science or Humanities</i>	3
EN 101– First Year Writing	3	BI 102–General Cell Biology	5
WU 101–Washburn Experience	3	<i>Gen Ed Social Science or Humanities</i>	3
TOTAL	14	TOTAL	16
Sophomore			
Fall Semester			Spring Semester
MA 151 - Calculus I	5	CH 341–Organic Chemistry II	3
CH 340–Organic Chemistry I	3	CH 343–Organic Chemistry II Lab	2
CH 342–Organic Chemistry I Lab	2	PH 102–Ethics	3
BI 103- General Organismal Biology	5	<i>Gen Ed Social Science or Humanities</i>	3
		CN 150- Public Speaking	3
TOTAL	15		14
Junior			
Fall Semester			Spring Semester
CH 350–Biochemistry I	3	BI 333 - General Genetics	4
CH 351–Biochemistry I Lab	2	CH 346 - Instrumental Analysis	2
CH 320–Analytical Chemistry	3	PS 281 - General Physics I	5
CH 321–Analytical Chemistry Lab	1	EN 300–Advanced College Writing	3
BI 301- General Microbiology	3	CH 355 - Medicinal Chemistry	2
CH 202 – Prof. Forensic Science Seminar	2		
TOTAL	14	TOTAL	16
Summer Session			
CH 393 or CH 390 – Internship or Research	3		
TOTAL	3		
Senior			
Fall Semester			Spring Semester
PS 282 - General Physics II	5	CH 323- Advanced Forensic Chemistry Lab	4
<i>Gen Ed Social Science or Humanities</i>	3	CH 391–Chemistry Seminar	1
BI 353 - Molecular Genetics	3	CJ 415–Advanced Forensic Investigations	3
CH 381 - Physical Chemistry I	3	CJ 416–Applied Forensic Investigations	2
CH 386 - Physical Chemistry Lab	1	BI 420 - Forensic Molecular Biology	4
		MA 140 - Statistics	3
TOTAL	15	TOTAL	17