

# CHEMISTRY: BIOCHEMISTRY OPTION

## Bachelor of Science (BS)

This is a guide based on the 2024-2025 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

### CURRICULUM CHECKLIST

"Critical Courses" are **italicized and bolded**. Data shows that students who have completed this course in the first two years and have earned the noted grade are most likely to complete this program of study.

#### 68-71 Hour Major – No minor required

##### Required Courses:

- \_\_\_ **CH184 General Chemistry I Lab (1)**
- \_\_\_ **CH185 General Chemistry I (3)**
- \_\_\_ **CH186 General Chemistry II (3)**
- \_\_\_ CH187 General Chemistry II Lab (1)
- \_\_\_ CH195 Chemistry Seminar I (1)
- \_\_\_ CH271 Foundations of Analytical Chemistry (5)
- \_\_\_ CH295 Chemistry Seminar 2 (2)
- \_\_\_ CH306 Inorganic Chemistry (3)
- \_\_\_ CH341 Found of Organic Chem (4)
- \_\_\_ CH342 Organic Chemistry Lab I (1)
- \_\_\_ CH360 Polymer Chemistry (1)
- \_\_\_ CH495 Chemistry Seminar 3 (1)
- \_\_\_ CH531 Found of Biochemistry (3)

##### Biochemistry Option Courses:

- \_\_\_ BI173 Cell/Organismal Biology (4)
- \_\_\_ BI245 Lab Methods in Biotechnology (3)
- \_\_\_ BI283 Genetics (4)
- \_\_\_ BI310 General Microbiology (4)
- \_\_\_ CH343 Adv Organic Chem (3)
- \_\_\_ CH344 Organic Chem Lab II (2)
- \_\_\_ CH420 Forensic Chemistry (4)
- \_\_\_ CH532 Advanced Biochemistry (2)
- \_\_\_ CH575 Chemical Instrumentation (4)
- \_\_\_ Choose 3-4 hours of BI, CH, or FS electives (300-500 level)

##### Choose one course:

- \_\_\_ BI404 Cell Biology (3)
- \_\_\_ FS552 Forensic Serology & DNA Analysis (2)

##### Choose one course:

- \_\_\_ BI450 Investigative Molecular Biology and Biotechnology (3)
- \_\_\_ CH533 Biochemistry Laboratory (2)

##### Choose one course:

- \_\_\_ MA223 Elementary Probability and Statistics (3)
- \_\_\_ MA423 Statistical Analysis for Forensic Science (3)

##### Additional Requirements:

- \_\_\_ MA139 Applied Calculus (3)
- AND**
- \_\_\_ CS101 Introduction to Computer Programming (3)
- OR**
- \_\_\_ MA140 Analytic Geometry and Calculus I (5)
- \_\_\_ PH120 Introductory Physics I (5)
- AND**
- \_\_\_ PH121 Introductory Physics II (5)
- OR**
- \_\_\_ PH230 General Physics I (5)
- AND**
- \_\_\_ PH231 General Physics II (5)

**General Education Requirements** – some requirements may be fulfilled by coursework in major program

- Social and Behavioral Sciences – 6 hours
- Constitution Requirement – 3 hours
- Written Communication – 6 hours
- Oral Communication – 3 hours
- Natural Sciences – 7 hours (from two disciplines, one to include a lab)
- Mathematics – 3 hours
- Humanities & Fine Arts – 9 hours (from at least two disciplines)
- Additional requirements – 5 hours (to include UI100 for native students)
- Civics examination

### SAMPLE FOUR-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
<b>FIRST YEAR</b>	UI100	1	BI173	4
	EN100	3	<b>CH186</b>	3
	<b>CH184/185</b>	4	CH187	1
	CH195	1	Mathematics course	3-5
	General Education	3	General Education	3
	General Education	3		
	<b>Total</b>	<b>15</b>	<b>Total</b>	<b>14-16</b>
	Milestone: achieve a target cumulative GPA of 3.0			
<b>SECOND YEAR</b>	BI283	4	BI310	4
	CH271/071	5	CH295	2
	<b>CH341</b>	4	CH343	3
	CH342	1	CH344	2
	General Education or CS101	3	General Education	3
	<b>Total</b>	<b>17</b>	<b>Total</b>	<b>14</b>
	Milestone: achieve a target cumulative GPA of 3.0			
<b>THIRD YEAR</b>	CH306	3	BI245	3
	CH360	1	CH532	2
	CH531	3	PH121/021 or PH231/030	5
	PH120/020 or PH230/030	5	MA223 or MA423	3
	General Education	3	General Education	3
	<b>Total</b>	<b>15</b>	<b>Total</b>	<b>16</b>
	Milestone: achieve a target cumulative GPA of 3.0			
<b>FOURTH YEAR</b>	CH420	4	CH495	1
	CH533 or BI450	2-3	CH575	4
	BI/CH/FS Elective	3-4	FS552 or BI404	2-3
	General Education	3	General Education	3
			Elective	2-7
	<b>Total</b>	<b>12-14</b>	<b>Total</b>	<b>12-18</b>
	Milestone: achieve a target cumulative GPA of 3.0			

A "Milestone" signifies a significant stage for a student in the completion of a degree.

**Degree requirements for all students:** a minimum of 120 credit hours, completion of the General Education program, and completion of 39 senior division hours (300-599). Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.

A minimum 2.0 GPA in the major and overall are required to graduate with a BS degree.

Revised  
2/2/2024

# 2024-2025 degree map

