CHEMISTRY: BIOCHEMISTRY OPTION

Bachelor of Science (BS)

This is a guide based on the 2023-2024 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*
FIRST YEAR	UI100	1	BI173	4
	EN100	3	***CH186***	3
	CH184/185	4	CH187	1
	CH195	1	Mathematics course	3-5
	General Education	3	General Education	3
	General Education	3		
	Total	**15**	**Total**	**14-16**
	Milestone: achieve a target cumulative GPA of 3.0			
SECOND YEAR	BI283	4	BI310	4
	CH271/071	5	CH295	2
	CH341	4	CH343	3
	CH342	1	CH344	2
	General Education or CS101	3	General Education	3
	Total	**17**	**Total**	**14**
	Milestone: achieve a target cumulative GPA of 3.0			
THIRD YEAR	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
	Total	**15**	**Total**	**16**
	Milestone: achieve a target cumulative GPA of 3.0			
FOURTH YEAR	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
	Total	**12-14**	**Total**	**12-18**
	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.

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2023-2024 *degree map*