

B.S. in BIOCHEMISTRY (Comprehensive Major)
 2024-25 REPRESENTATIVE FOUR YEAR CURRICULUM GUIDE
 DEPARTMENT OF CHEMISTRY/GEOLOGY/PHYSICS

7/2024

Year 1	Fall Semester		Year 1	Spring Semester	
Course #	Title	Cr.	Course #	Title	Cr.
CHEM 103	Gen. Chem. I (fa only, Core 1)	4	CHEM 104	Gen. Chem. II (sp only)	4
MATH 205	Calculus I (fa only, Core 2)	5	MATH 206	Calculus II (sp only)	5
BIO 201	Molec. & Cellular Basis of Life (Core 3)	4	BIO 202	Organisms, Adap. & Divers.	4
ENG 101	Composition I (Core 4)	3	ENG 102	Composition II (Core 5)	3
	TOTAL	16		TOTAL	16

Year 2	Fall Semester		Year 2	Spring Semester	
Course #	Title	Cr.	Course #	Title	Cr.
CHEM 307	Organic Chem I (fa only)	3	CHEM 308	Organic Chem II (sp only)	3
CHEM 307L	Organic Chem I Lab (fa only)	1	CHEM 308L	Organic Chem II Lab (sp only)	1
PHYS 205	University Physics (fa only)	5	PHYS 206	University Physics (sp only)	5
CORE/CCI*	Inst. Requirement (Core 6)	3	BIO 303	Genetics	4
CORE	Inst. Requirement (Core 7)	3	ELECTIVE	General Elective	3
	TOTAL	15		TOTAL	16

Year 3	Fall Semester		Year 3	Spring Semester	
Course #	Title	Cr.	Course #	Title	Cr.
CHEM 429/429L	Biochemistry w. lab (fa only)	4	CHEM 439	Adv. Topics Biochem (sp odd) or General Elective	3
CHEM 320	Quant. Analysis (fa only) or CHEM 411/L (fa odd)	4	CORE	Inst. Requirement (Core 10)	3
CORE	Inst. Requirement (Core 8)	3	CORE	Inst. Requirement (Core 11)	3
CORE	Inst. Requirement (Core 9)	3	ELECTIVE	General Electives as needed to fulfill required credit hrs	3-6
	TOTAL	14		TOTAL	12-15

Year 4	Fall Semester		Year 4	Spring Semester	
Course #	Title	Cr.	Course #	Title	Cr.
CHEM 411/411L	Quantum Mechanics w. lab (fa odd) or CHEM 320 (fa only)	4	ELECTIVE	General Elective or CHEM 439 (sp odd)	3
BIO 424	Cell Biology (fa only)	4	CORE	Inst. Requirement (Core 14)	3
CORE	Inst. Requirement (Core 12)	3	CORE	Inst. Requirement (Core 15)	3
CORE	Inst. Requirement (Core 13)	3	ELECTIVE	General Electives as needed to fulfill required credit hrs	3-6
	TOTAL	14		TOTAL	12-15

120 total credit hours required for degree

***The Critical Cultural Inquiry (CCI) requirement can be completed by either one value-added foreign language course, an approved study-away or study abroad experience, or one CCI course. One slot should be allotted for CORE/CCI, but students completing the requirement with study abroad, can substitute an elective if necessary to reach 120 hours. If students are continuing a language study, it is preferable to take the course during the first semester of the first year.*

Students planning to attend graduate school should plan on conducting an independent research project (CHEM 497) or participate in a summer research program or internship. Develop a plan for this with your academic adviser.