B.S. in CHEMISTRY (Comprehensive Major, ACS-Certified degree requirements noted in parentheses) 8/2020 2020
FOUR YEAR CURRICULUM GUIDE
DEPARTMENT OF CHEMISTRY/GEOLOGY/PHYSICS

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, Core 5)	4
MATH 205	Calculus I (fa only, Core 2)	5		MATH 206	Calculus II (sp only)	5
ENG 101	Composition I (Core 3)	3		ENG 102	Composition II (Core 6)	3
CORE/CCI*	Inst. Requirement (Core 4)	3		CORE	Inst. Requirement (Core 7)	3
	TOTAL	**15**			**TOTAL**	**15**

Year 2	**Fall Semester**			**Year 2**	**Spring Semester**	
Course #	**Title**	**Cr.**		**Course #**	**Title**	**Cr.**
CHEM 307/307L	Organic Chem I w/Lab (fa only)	4		CHEM 308/308L	Organic Chem II w/Lab (sp only)	4
PHYS 205	University Physics (fa only)	5		PHYS 206	University Physics (sp only)	5
CORE	Inst. Requirement (Core 8)	3		CORE	Inst. Requirement (Core 10)	3
CORE	Inst. Requirement (Core 9)	3		ELECTIVE	General Elective	3
	TOTAL	**15**			**TOTAL**	**15**

Year 3	**Fall Semester**			**Year 3**	**Spring Semester**	
Course #	**Title**	**Cr.**		**Course #**	**Title**	**Cr.**
CHEM 411/411L or CHEM elective	Phys. Chem I w/ Lab (fa odd) or ACS = CHEM 429/429L Biochemistry (fa only)	3-4		CHEM 412/412L or CHEM elective	Phys. Chem II w. lab (sp even) or ACS = CHEM 420 Instrumental Analysis, (sp only)	3-4
CHEM 320	Quantitative Analysis (fa only)	4		SCIENCE	Science Elective if needed*** ACS = CHEM 416 Advanced Inorganic Chemistry (sp even)	0-4
MATH 305** or CORE	The Calculus III (fa only) or Inst. Requirement (Core 11)	3-4		CORE or MATH 307**	Inst. Requirement (Core 11) or Linear Algebra (sp only)	3
ELECTIVE	General Electives as needed to fulfill required credit hrs.	3-6		CORE	Inst. Requirement (Core 12)	3
				ELECTIVE	General Electives as needed to fulfill required credit hrs.	0-6
	TOTAL	**13-18**			**TOTAL**	**15-18**

Year 4	**Fall Semester**			**Year 4**	**Spring Semester**	
Course #	**Title**	**Cr.**		**Course #**	**Title**	**Cr.**
CHEM 4XX	ACS = CHEM 429/429L Biochemistry (fa only) or CHEM 411/411L (fa odd)	3-4		CHEM 4XX	CHEM elective ACS = CHEM 420, Instrumental Analysis (sp only) or CHEM 412/412L (sp even)	3-4
CHEM 4XX or Elective	CHEM Elective ACS = CHEM 4XX or General Electives as needed to fulfill req. credit hrs.	3-6		SCIENCE	Science Elective if needed*** ACS = CHEM 416 Advanced Inorganic Chemistry, (sp even)	0-4
CORE	Inst. Requirement (Core 13)	3		CORE	Inst. Requirement (Core 15)	3
CORE	Inst. Requirement (Core 14)	3		ELECTIVES	General Electives as needed to fulfill required credit hrs.	1-6
	TOTAL	**12-16**			**TOTAL**	**12-17**

120 total credit hours required for degree **Important information continues on page 2 of this curriculum guide.**

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**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.*

***Math: MATH 205/206 and either MATH 305 or 307 are required for major*

****Science elective: For the Chemistry major, another 400-level CHEM, GEOL or BIO or 300-level MATH or PHYS should be taken if needed to reach at least 60 hrs. in major. The ACS-certified degree requires CHEM 416, 420, 429, 429L + 3 additional hrs. at 400-level including CHEM 497; GEOL 403 may substitute as a 400-level Chemistry elective (by permission).*

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.