

CHEMISTRY MAJOR (CHEM.BS)

<u>Required Courses</u>	<u>Hrs.</u>	<u>Prereq.</u>	<u>Rec.Yr.</u>	
CHEM 131	Gen Chemistry for Sci Maj I	3	*Coreq CHEM 133L	Fr
<i>*Prerequisite: Must have passed at least one year of high school chemistry or one semester of college chemistry equivalent to CHEM 105/107L or above AND at least one of the following: MATH ACT score of 20, MATH SAT score of 500, grade of C or better in one of the classes: MATH 103, 110, 112, 115, 130, 161.</i>				
CHEM 133L	Gen Chemistry for Sci Maj I Lab	1	Coreq CHEM 131	
CHEM 132	Gen Chemistry for Sci Majors II	3	C- or better in CHEM 131, 133L; Coreq CHEM 134L	Fr
CHEM 134L	Gen Chemistry for Sci Maj II Lab	1	Coreq CHEM 132	
<u>OR</u>				
CHEM 161	Acc Gen Chem for Science Majors	3	HS Chem & placement or CHEM 105, 107L; Coreq CHEM 163L	Fr
CHEM 163L	Acc Gen Chem for Science Maj Lab	1	HS Chemistry & placement or CHEM 105, 107L; Coreq CHEM 161	Fr
CHEM 221	Organic Chemistry I	3	C- or better in CHEM 131, 133L, 132, 134L or 161,163L; Coreq CHEM 223L	Soph
CHEM 223L	Organic Chemistry I Lab	1	C- or better in CHEM 131, 133L, 132,134L or 161, 163L; Coreq CHEM 221	Soph
CHEM 222	Organic Chemistry II	3	C- or better in CHEM 221, 223L; Coreq 224L	Soph
CHEM 224L	Organic Chemistry II Lab	1	C- or better in CHEM 221, 223L; Coreq CHEM 222	Soph
CHEM 231	Analytical Chemistry	3	C- or better in CHEM 131, 133L, 132, 134L or 161,163L: Coreq 233L	Soph/Jr
CHEM 233L	Analytical Chemistry Lab	1	C- or better in CHEM 131, 133L, 132, 134L or 161,163L; Coreq 231	Soph/Jr
CHEM 301	Laboratory Safety Management	1	CHEM 222, 224L	Jr
CHEM 320	Physical Chemistry I	3	C- or better in CHEM 231, 233L, MATH 161 or 162; Coreq CHEM 322L	Jr
CHEM 322L	Physical Chemistry I Lab	1	C- or better in CHEM 231, 233L, MATH 161 or 162; Coreq CHEM 320	Jr
CHEM 340	Advanced Inorganic Chemistry	3	C- or better in CHEM 222, 224L, 231, 233L;Coreq CHEM 341L	Jr
CHEM 341L	Advanced Inorganic Chemistry Lab	1	C- or better in CHEM 231, 233L; Coreq CHEM 340	Jr
CHEM 350	Biochemistry I	3	C- or better in CHEM 222, 224L or BIOL 354	Jr
CHEM 351L	Biochemistry I Lab	1	C- or better in CHEM 222, 224L; Coreq CHEM 350	Jr
CHEM 365	Advanced Physical Chemistry	3	C- or better in CHEM 320, 322L, MATH 162	Jr
CHEM 370	Adv Chemistry Topics	2	CHEM 222, 224L, 231, 233L	Jr
CHEM 370	Adv Chemistry Topics (diff topic)	2	CHEM 222, 224L, 231, 233L	Jr
CHEM 397/399	Research or Summer Research	0-2	CHEM 221, 223L, 231, 233L	Jr
^CHEM 497	Seminar	2	Sr Standing and CHEM major/minor	Sr
MATH 115	Elementary Statistics	3		Fr
MATH 161	Calculus I	4	C or better in MATH 130 or placement	Fr
MATH 162	Calculus II	4	C (2.0) or better in MATH 161;	Fr
MATH 163	Technology for Calculus	1	Coreq MATH 162	Fr
PHYS 151	General Physics I	4	Official math placement or P/I	
<u>OR</u>				
PHYS 161	General Physics I with Calculus	4	Pre or Coreq MATH 161	
PHYS 152	General Physics II	4	Official math placement or P/I	
<u>OR</u>				
PHYS 162	General Physics II with Calculus	4	Pre or Coreq MATH 161	

58-64 total hours

****REMINDERS****

1. Departmentally approved substitutes may be taken in place of certain labs.
2. CHEM 105-106 and labs do not count toward a major or minor in Chemistry.
- 3.

^Satisfies advanced writing requirement

NAME: _____

B.S. Degree: Chemistry Major (for students entering in Fall 2024/Spring 2025)

In the "WHAT" column, enter the specific course number when applicable--e.g. HIST 121. In the "WHEN" column, enter the term and year in which the requirement is satisfied--e.g., sp '20.

Liberal Arts Core	
WHAT	WHEN
_____	ENGL 101* w/ C (2.0) [3 hrs]
_____	ENGL 110 w/ C (2.0) [3 hrs]
_____	COMM 211 w/ C (2.0) [3 hrs]
_____	Dept senior seminar/writing course
_____	Met by: _____ CHEM 497 [2 hrs]
_____	FYEX 101 [3 hrs]
_____	FYEX 102 [1 hr]
_____	FYEX 103/104/105/106/107 [1 hr]
_____	FYEX 103/104/105/106/107 [1 hr]
_____	FYEX 401 [1 hr]
_____	Foundational Scientific Inquiry [3-4 hrs]
_____	Foundational Quantitative Analysis [3-4 hrs]

No more than two lens courses may come from same departmental prefix and one lens must be taken at 300 level or above.

_____	_____	Ethical/Spiritual Explor Lens (ETSP) [3 hrs]
_____	_____	Aesthetic Expression Lens (AEXP) [3 hrs]
_____	_____	Per & Soc Well Being Lens (PSWB) [3 hrs]
_____	_____	Cultural Perspectives Lens (CEXP) [3 hrs]
_____	_____	Experimental Inquiry Lens (EXIN) [3 hrs]

37 – 39 Total semester hours

_____ 120 semester hours required for graduation

*Enter NA (not applicable) if waived upon admission

Chemistry Major (B.S.)	
WHAT	WHEN
_____	CHEM 161 [3 hrs]
_____	CHEM 163L [1 hr]
_____	OR
_____	CHEM 131 [3 hrs]
_____	CHEM 133L [1 hr]
_____	CHEM 132 [3 hrs]
_____	CHEM 134L [1 hr]
_____	CHEM 221 [3 hrs]
_____	CHEM 223L [1 hr]
_____	CHEM 222 [3 hrs]
_____	CHEM 224L [1 hr]
_____	CHEM 231 [3 hrs]
_____	CHEM 233L [1 hr]
_____	CHEM 301 [1 hr]
_____	CHEM 320 [3 hrs]
_____	CHEM 322L [1 hr]
_____	CHEM 340 [3 hrs]
_____	CHEM 341L [1 hr]
_____	CHEM 350 [3 hrs]
_____	CHEM 351L [1 hr]
_____	CHEM 365 [3 hrs]
_____	CHEM 370 [2 hrs]
_____	CHEM 370-different topic [2 hrs]
_____	CHEM 397/399 [0-2 hrs]
_____	CHEM 497 [2 hrs]
_____	MATH 115 [3 hrs]
_____	MATH 161 [4 hrs]
_____	MATH 162 [4 hrs]
_____	MATH 163 [1 hr]
_____	PHYS 151/161 [4 hrs]
_____	PHYS 152/162 [4 hrs]
_____	58-64 semester hours

➤ Departmentally approved substitutes may be taken in place of certain laboratories.

➤ Students enrolled in a course for which there is a lab must also enroll in the lab or its approved substitute, except with approval of the department.

➤ Except in specifically approved majors, a maximum of 52 hours in an academic discipline may count toward graduation. Three hours over the limit may count to accommodate an internship in the discipline.

➤ Only six hours of any minor may overlap with the required credit hours of a student's chosen major. The overlap constraint is not applicable to courses that majors or minors MUST take in others departments.