

CHEMISTRY MAJOR (CHEM.BS)

| Required Courses | | Hrs. | Prereq. | Rec.Yr. |
|--|-----------------------------------|------|--|---------|
| 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 2022/Spring 2023)

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.

| General Education | | Chemistry Major (B.S.) | |
|-------------------|--|------------------------|----------------------------------|
| WHAT | WHEN | WHAT | WHEN |
| _____ | ENGL 101* w/ C (2.0) [3 hrs] | _____ | CHEM 161 [3 hrs] |
| _____ | ENGL 110 w/ C (2.0)* [3 hrs] | _____ | CHEM 163L [1 hr] |
| _____ | COMM 211 w/ C (2.0) [3 hrs] | _____ | OR |
| _____ | Dept senior seminar/writing course | _____ | CHEM 131 [3 hrs] |
| _____ | Met by: _____ BUSI 497 [3 hrs] | _____ | CHEM 133L [1 hr] |
| _____ | | _____ | CHEM 132 [3 hrs] |
| _____ | FYEX 101 [3 hrs] | _____ | CHEM 134L [1 hr] |
| _____ | FYEX 102 [1 hr] | _____ | |
| _____ | FYEX 103/104/105/106/107 [1 hr] | _____ | CHEM 221 [3 hrs] |
| _____ | FYEX 103/104/105/106/107 [1 hr] | _____ | CHEM 223L [1 hr] |
| _____ | | _____ | CHEM 222 [3 hrs] |
| _____ | Foundational Scientific Inquiry [3-4 hrs] | _____ | CHEM 224L [1 hr] |
| _____ | Foundational Quantitative Analysis [3-4 hrs] | _____ | CHEM 231 [3 hrs] |
| _____ | | _____ | CHEM 233L [1 hr] |
| _____ | Ethical/Spiritual Explor Lens (ETSP) [3 hrs] | _____ | CHEM 301 [1 hr] |
| _____ | Aesthetic Expression Lens (AEXP) [3 hrs] | _____ | CHEM 320 [3 hrs] |
| _____ | Per & Soc Well Being Lens (PSWB) [3 hrs] | _____ | CHEM 322L [1 hr] |
| _____ | Cultural Expression Lens (CEXP) [3 hrs] | _____ | CHEM 340 [3 hrs] |
| _____ | Experimental Inquiry Lens (EXIN) [3 hrs] | _____ | CHEM 341L [1 hr] |
| _____ | | _____ | CHEM 350 [3 hrs] |
| _____ | INDS 401 [1 hr] | _____ | CHEM 351L [1 hr] |
| _____ | INDS 402 [1 hr] | _____ | CHEM 365 [3 hrs] |
| _____ | | _____ | CHEM 370 [2 hrs] |
| _____ | 35 – 41 Total semester hours | _____ | CHEM 370-different topic [2 hrs] |
| _____ | 120 semester hours required for graduation | _____ | 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 |

*Enter NA (not applicable) if waived upon admission

➤ 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.