



Suggested degree path for the
BACHELOR OF SCIENCE DEGREE IN CHEMICAL SCIENCES (CHSC)
 2022-23 Catalog

Name: _____ ID#: _____ Phone #: _____

| | <i>Fall Semester (recommended hours)</i> | <u>Prerequisite Information</u> | <u>Hours</u> | <u>Grade</u> | <u>Year/ Semester</u> | <u>Course Sub / Suggested</u> |
|----------|---|--|--------------|--------------|---------------------------|-------------------------------|
| F | CHEM 105 Chemistry I (Science majors) | Pre MATH101 | 3 | | | |
| | CHEM 113 Chemistry I Lab (Chemistry majors) | Co CHEM105, chem. major | 1 | | | Schedule first |
| | BIOL 155 General Biology I | ENGL101, MATH101 eligible | 4 | | | Includes lab |
| | ENGL 101 English Comp. I | ACT score or ENGL003(C) | 3 | | | |
| | Humanities elective | | 3 | | | See catalog for options |
| | UNIV 101 University Prep (UR) | First time entering freshmen and transfer students < 30 hours. | 1 | | | |
| | | | | | | <i>Total Hours: 15</i> |
| | <i>Spring Semester (recommended hours)</i> | | | | | |
| E | CHEM 106 Chemistry II (Science majors) | Pre CHEM105(C) | 3 | | | |
| | CHEM 114 Chemistry II Lab (Chemistry majors) | Pre CHEM113 co CHEM106 | 1 | | | Schedule first |
| | MATH 165 Calculus I | MATH101(C) 102 or 108(C) | 5 | | | MATH100 = MATH101 |
| | ENGL 102 English Comp. II | Pre ENGL101(C) or ACT | 3 | | | |
| | Humanities Elective | See catalog | 3 | | | See catalog for options |
| | | | | | | <i>Total Hours: 15</i> |

Schedule your chemistry lab first since there is only one section of it. Build the rest of your schedule around it. If your math placement requires you to start with a lower math course than 165, start your math in the fall semester. If necessary, chemistry professional majors can postpone BIOL 155.

Scheduling of many general education courses such as the History, Humanities, Literature, Fine Arts, and Social Science electives as well as SPCH 101 and CMPS 130 is flexible. For example, CMPS 130 is listed in the fall semester of your sophomore year, but if there are no open sections when you register, you can take your literature elective then instead and take CMPS 130 later. Be sure to check the prerequisites for each course.

| | <i>Fall Semester (recommended hours)</i> | <u>Prerequisite Information</u> | <u>Hours</u> | <u>Grade</u> | <u>Year/ Semester</u> | <u>Course Sub / Suggested</u> |
|-------------------------------|---|---------------------------------|--------------|--------------|---------------------------|-------------------------------|
| S | CHEM 221 Organic Chem. I | Pre CHEM106 | 3 | | | |
| | Social Science Elective I | | 3 | | | |
| | PHYS 101 Physics I (Algebra/Trigonometry Based) | Pre MATH 102 | 3 | | | See note below |
| | PHYS 203 Gen. Physics I Lab. | Pre or co PHYS201 | 1 | | | |
| | CMPS 130 Intro. Comp. Sci. I | Pre MATH 100 or 101(C) | 3 | | | |
| | SPCH 101 Fund. Publ. Speak. | ENGL101 eligible | 3 | | | |
| | | | | | | |
| | <i>Spring Semester (recommended hours)</i> | | | | | |
| E | CHEM 222 Organic Chem. II | Pre CHEM221 (C) | 3 | | | |
| | CHEM 226 Org. Chem. Lab. | Pre CHEM114 co CHEM222 | 2 | | | CHEM110 = CHEM114 |
| | CHEM 300 Quant. Analysis | Pre CHEM106 & 114 | 3 | | | CHEM110 = CHEM114 |
| | CHEM 302 Quant. Anal. Lab. | Pre or co CHEM300 | 2 | | | |
| | PHYS 102 Physics II (Algebra/Trigonometry Based) | Pre PHYS101 | 3 | | | See note below |
| PHYS 204 Gen. Physics II Lab. | Pre or co PHYS202 | 1 | | | | |
| | | | | | | <i>Total hours: 14</i> |

Schedule classes with only one section (e.g., PHYS 201, 202, 203 204, CHEM 221, 222, 300, 302) first. Avoid postponing Physics because that would push back when you can take Physical Chemistry and upper level chemistry courses and make it difficult to finish in four years.



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| Fall Semester (recommended hours) | | Prerequisite Information | Hours | Grade | Year/ Semester | Course Sub / Suggested | |
|--|--|---------------------------------|--------------|--------------|---------------------------|-------------------------------|--|
| J U N I O R Y E A R | CHEM 303 Physical Chem. I | Pre MATH165, CHEM106, PHYS202 | 3 | | | PHYS102 = PHYS202 | |
| | CHEM 305 Phys. Chem. I Lab | Co CHEM303 | 1 | | | | |
| | CHEM 319 Intro. Chemical Lit. | Pre CHEM222, 300 | 1 | | | | |
| | CHEM 435 Biochemistry I | Pre CHEM222 | 3 | | | | |
| | CHEM 437 Biochemistry Lab. | Co CHEM435 | 1 | | | | |
| | CHEM ELECTIVE | | 3 | | | at 300 level or higher | |
| | FREE ELECTIVE | | 3 | | | See (1) below | |
| | | | | | | TOTAL: 15 hours | |
| | Spring Semester (recommended hours) | | | | | | |
| | CHEM 304 Physical Chem. II | Pre CHEM303 | 3 | | | | |
| CHEM 306 Phys. Chem. II Lab. | Pre CHEM305 Co CHEM304 | 1 | | | | | |
| CHEM 405 Instr. Analysis | Pre CHEM302, 303 | 3 | | | | | |
| CHEM 407 Instr. Anal. Lab. | Pre or Co CHEM405 | 2 | | | | | |
| ENGL 368 Tech. & Prof. Writ. | Pre ENGL102(C) | 3 | | | | | |
| CHEM ELECTIVE | | 3 | | | at 300 level or higher | | |
| | | | | | TOTAL: 15 hours | | |

| Fall Semester (recommended hours) | | Prerequisite Information | Hours | Grade | Year/ Semester | Course Sub / Suggested | |
|--|--|---------------------------------|--------------|--------------|---------------------------|-------------------------------|--|
| S E N I O R Y E A R | CHEM 412 Inorganic Chem. | Pre CHEM304 | 3 | | | | |
| | CHEM 413 Inorganic Prep. | Pre CHEM302,306 Co CHEM412 | 1 | | | | |
| | FREE ELECTIVES (300-level or above) | | 6 | | | See (1) below | |
| | FREE ELECTIVES | | 5 | | | See (1) below | |
| | | | | | | TOTAL: 15 | |
| | Spring Semester (recommended hours) | | | | | | |
| | CHEM 450 Senior Seminar | Pre CHEM306, 319 | 1 | | | | |
| | Social Science Elective 2 | | 3 | | | See catalog for options | |
| | Fine Arts Elective | | 3 | | | See catalog for options | |
| | Humanities Elective | See catalog | 3 | | | See catalog for options | |
| FREE ELECTIVES (300-level or above) | | 2 | | | See (1) below | | |
| FREE ELECTIVES | | 3 | | | See (1) below | | |
| | | | | | TOTAL: 15 | | |
| Total Hours for Degree | | | 120 | | | | |

Approved electives:

(1) Free Electives: 19 hours can be from any discipline; 8 hours must be 300-level or above. Recommended choices: CHEM 319, 340, 421, 436, 438, 451, 452, 480, 481, 490; MATH 265, 355, 358, 360, 407, BIOL xxx, GEOL xxx. NOTE: CHEM 490 may be repeated if content is different.

45-Hour Requirement. You are required to have at least 45 hours from courses at the 300 and 400 level. Required courses for this concentration include 37 hours at this level. To fulfill the 45 hour requirement, at least 8 hours of GenEd or Free Electives must be at the 300 and 400 level. Discuss this with your advisor before registering for the first semester of your senior year to be sure that you are meeting this requirement.