



This is a degree plan for completing a BS in Chemistry in eight semesters. This document is meant to be used as a guide for planning purposes only and is intended for use in consultation with a Professional Academic or Faculty advisor.

| Year One   |                               |           | Year Two                |                                 |                      |
|--|-------------------------------|-----------|-------------------------|---------------------------------|----------------------|
| <b>Semester 1</b>  |                               |           | <b>Semester 3</b>       |                                 |                      |
| Fall   |                               | Credits   | Fall                    |                                 | Credits              |
| CHE 1800   | General Chemistry I*          | 4         | CHE 3000                | Analytical Chemistry            | 3                    |
| CHE 1801   | General Chemistry I Lab       | 1         | CHE 3010                | Analytical Chemistry Lab        | 2                    |
|  | Oral Communication            | 3         | MTH 2410                | Calculus II                     | 4                    |
|  | General Studies and Electives | 4         | --                      | General Studies and Electives   | 6                    |
| ENG1010  | Composing Arguments           | 3         | --                      |                                 |                      |
| <b>Semester 1 Total</b>  |                               | <b>15</b> | <b>Semester 3 Total</b> |                                 | <b>15</b>            |
| <b>Semester 2</b>  |                               |           | <b>Semester 4</b>       |                                 |                      |
| Spring   |                               | Credits   | Spring                  |                                 | Credits              |
| CHE 1810   | General Chemistry II          | 4         | CHE 3100                | Organic Chemistry I             | 4                    |
| CHE 1811   | General Chemistry II Lab      | 1         | CHE 3120                | Organic Chemistry I Lab         | 1                    |
| MTH 1410   | Calculus I                    | 4         | MTH 2420                | Calculus III                    | 4                    |
| ENG 1020   | Research and Argument Writing | 3         | --                      | General Studies                 | 6                    |
| --   | General Studies and Electives | 3         |                         |                                 |                      |
| <b>Semester 2 Total</b>  |                               | <b>15</b> | <b>Semester 4 Total</b> |                                 | <b>15</b>            |
| Year Three   |                               |           | Year Four               |                                 |                      |
| <b>Semester 5</b>  |                               |           | <b>Semester 7</b>       |                                 |                      |
| Fall   |                               | Credits   | Fall                    |                                 | Credits              |
| CHE 3110   | Organic Chemistry II          | 3         | CHE 4450                | Physical Chemistry : Quantum    | 4                    |
| CHE 3130   | Organic Chemistry II Lab      | 2         | CHE 4480                | Physical Chemistry: Quantum Lab | 2                    |
| PHY 2311   | General Physics I and         | 4         | --                      | CHE Electives                   | 4                    |
| PHY 2321   | General Physics I Lab         | 1         | --                      | General Studies and Electives   | 6                    |
| OR   |                               |           |                         |                                 |                      |
| PHY 2010   | College Physics 1 and         | 4         |                         |                                 |                      |
| PHY 2030   | College Physics 1 Lab         | 1         |                         |                                 |                      |
| CHE 3300   | Inorganic Chemistry           | 3         |                         |                                 |                      |
| <b>Semester 5 Total</b>  |                               | <b>13</b> | <b>Semester 7 Total</b> |                                 | <b>16</b>            |
| <b>Semester 6</b>  |                               |           | <b>Semester 8</b>       |                                 |                      |
| Spring   |                               | Credits   | Spring                  |                                 | Credits              |
| --   | CHE Electives                 | 5         | CHE 4460                | Physical Chemistry: Thermo      | 4                    |
| --   | General Studies and Electives | 6         | CHE 4490                | Physical Chemistry: Thermo Lab  | 2                    |
| PHY 2331   | General Physics II and        | 4         | CHE 4950                | Senior Experience in Chemistry  | 3                    |
| PHY 2341   | General Physics II Lab        | 1         | --                      | General Studies and Electives   | 6                    |
| OR   |                               |           |                         |                                 |                      |
| PHY 2020   | College Physics II and        | 4         |                         |                                 |                      |
| PHY 2040   | College Physics II Lab        | 1         |                         |                                 |                      |
| <b>Semester 6 Total</b>  |                               | <b>16</b> | <b>Semester 8 Total</b> |                                 | <b>15</b>            |
| *This plan assumes math prerequisites have been met. Students must complete all courses with a grade of C- or better. This degree is an extended major and does not require a minor. |                               |           |                         |                                 | <b>PROGRAM TOTAL</b> |
|  |                               |           |                         |                                 | <b>120</b>           |

| Advisor Contact Information                 |                       |
|---|-----------------------|
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| Phone                                       |                       |
| Office Hours/How to Schedule an Appointment |                       |
|   |                       |

| Catalog Information  |
|--|
| This four-year degree plan for completing a BS in Chemistry in eight semesters is for the Catalog Year 2022-2023. Students are responsible for consulting advisors and the MSU Denver catalog for degree requirements. |
| <a href="#">View the MSU Denver Catalog</a>  |

### Course Listing

| Core Requirements |                                  |           | Electives, Ancillary, & Additional Courses**            |                               |    |
|-------------------|----------------------------------|-----------|---|-------------------------------|----|
| CHE 1800          | General Chemistry I              | 4         | --  | CHE upper division electives  | 10 |
| CHE 1801          | General Chemistry I Laboratory   | 1         |   | see catalog for details       |    |
| CHE 1810          | General Chemistry II             | 4         | MTH 1410  | Calculus I                    | 4  |
| CHE 1811          | General Chemistry II Laboratory  | 1         | MTH 2410  | Calculus II                   | 4  |
| CHE 3000          | Analytical Chemistry             | 3         | MTH 2420  | Calculus III                  | 4  |
| CHE 3010          | Analytical Chemistry Laboratory  | 2         | --  | CHE senior experience course  | 3  |
| CHE 3100          | Organic Chemistry I              | 4         | Select 1 of the following Physics Lecture/Lab Sequences |                               |    |
| CHE 3110          | Organic Chemistry II             | 3         | PHY 2010  | College Physics I             | 4  |
| CHE 3120          | Organic Chemistry I Laboratory   | 1         | PHY 2020  | College Physics II            | 4  |
| CHE 3130          | Organic Chemistry II Laboratory  | 2         | PHY 2030  | College Physics I Laboratory  | 1  |
| CHE 4450          | Phys Chem: Quant Mech & Spectro  | 4         | PHY 2040  | College Physics II Laboratory | 1  |
| CHE 4460          | Phys Chem: Thermo & Kinetics     | 4         | OR  |                               |    |
| CHE 4480          | Phys Chem Lab: Quant & Spectro   | 2         | PHY 2311  | General Physics I             | 4  |
| CHE 4490          | Phys Chem Lab: Thermo & Kinetics | 2         | PHY 2321  | General Physics I Laboratory  | 1  |
| CHE 3300          | Inorganic Chemistry              | 3         | PHY 2331  | General Physics II            | 4  |
|                   | <b>Core Requirements Total</b>   | <b>40</b> | PHY 2341  | General Physics II Laboratory | 1  |
|                   |                                  |           | <b>Electives and Ancillary Total</b>                    |                               |    |
|                   |                                  |           | <b>45</b>   |                               |    |

### Other Information

\*\*MTH 1410 counts as a Quantitative Literacy General Studies course

\*\*The Physics courses count as Natural and Physical Science General Studies courses

### Program Totals

|                                |            |
|--------------------------------|------------|
| General Studies Requirements** | 33         |
| Core Requirements              | 40         |
| Electives and Ancillary**      | 35         |
| General Electives as Needed    | 12         |
| <b>Total to Graduate</b>       | <b>120</b> |

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