Total Major hours: 84

Suggested hours per semester: 18

## **Chemistry Major**

## with Secondary Education Licensure

Major Academic Plan (MAP) for Catalog Year 2022-2023

The catalog is the final authority on CATC and major requirements; this is intended as a tool for planning purposes. Student course sequencing may vary depending on course offerings and other variables.

| Fall Semester 1  | Spring Semester 1                          | Summer 1 <sup>2</sup>      |
|--|--|----------------------------|
| CHEM 231: General Chemistry I <sup>F</sup> or CHEM     | CHEM 232: General Chemistry II*,5 or       |                            |
| 341: Organic Chem. I*,F                                | CHEM 342: Organic Chem. II*,S              | Consider study, internship |
| EDUC 135 School & Society (2) <sup>6</sup>             | MATH 231: Calculus I <sup>1</sup>          | or research options –      |
| EDUC 136 Teaching Ethnically &                         |  | Wheaton In summer          |
| Linguistically Diverse Students (2) <sup>6</sup>       |  | program, WIN               |
| EDUC 136L Cross-Cultural Tutoring (1) <sup>6</sup>     |  | (HoneyRock), Wheaton in    |
|  |  | the Black Hills, non-major |
| CORE 101: First Year Seminar                           | First-Year CATC Options                    | internship, summer         |
| First-Year CATC options-                               | Language Core Competency                   | research                   |
| ■ AHS 101: Wellness (2)                                | BITH 211/ARCH 211: Old                     |                            |
| ■ COMM 101: Oral Comm (2)                              | Testament <sup>2</sup>                     |                            |
| ■ ENGW 103: First-Year Writing                         |  |                            |
| <ul><li>Language Core Competency or Thematic</li></ul> |  |                            |
| Core Course  |  |                            |
| Fall Semester 2  | Spring Semester 2                          | Summer 2 <sup>2</sup>      |
| CHEM 341: Organic Chemistry I*,F, if not               | CHEM 342: Organic Chemistry II*,5, if      |                            |
| complete   | not complete                               | Consider summer            |
| PHYS 221: General Physics I <sup>1,3,F</sup>           | PHYS 222: General Physics II*,3,F          | coursework                 |
| EDUC 225 Learning & Development <sup>1</sup>           | EDUC 305 Learning Differences (2)*         |                            |
| EDUC 225L Teacher Aiding Practicum (1)                 |  |                            |
| Thematic Core or Core Competency                       | Thematic Core Course (4-8)                 |                            |
| Courses (4-8)  | BITH 315: Christian Thought <sup>2</sup> * |                            |
| BITH 213/ARCH 213: New Testament <sup>2</sup>          |  |                            |
| Fall Semester 3  | Spring Semester 3                          | Summer 3 <sup>2</sup>      |
| CHEM 355: Intro. to Analytical Chem.                   | CHEM 336: Inorganic Chemistry*,5           |                            |
| (2)* <sup>,F</sup>                                     | SCI 321 Science for Middle & H.S.          | Consider summer            |
| CHEM 371: Physical Chem. I*,F                          | Teachers (2) <sup>S*</sup>                 | coursework                 |
| EDUC 306 Classroom Communication &                     | SCI 325 Methods of Teaching Middle         |                            |
| Curriculum Integration*F                               | Grade Science <sup>S*</sup>                |                            |
|  | LING 326 English Language Methods          |                            |
|  | for content Area Teachers (2) <sup>s</sup> |                            |
|  |  |                            |
|  |  |                            |
| Advanced Integrative Seminar*                          |  |                            |
| Fall Semester 4  | Spring Semester 4                          | Summer 4                   |
|  | EDUC 494 Senior Seminar (2)*               |                            |
| CHEM 494: Chemistry in Context (2)*,4                  | EDUC 496 Student Teaching (9)*             |                            |
| BIOL 461: General Biochemistry*,F                      | EDUC 497 Phil. Foundations of Ed           |                            |
| Other Science Requirement <sup>5</sup>                 | (3) <sup>1,*</sup>                         |                            |
|  |  |                            |

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| EDUC 305L Learning Differences        | Complete CATC Coursework |  |
|---------------------------------------|--------------------------|--|
| Practicum (1) <sup>7</sup>            |                          |  |
| EDUC 324L Methods Practicum (Middle & |                          |  |
| High School) (1) 7                    |                          |  |
|                                       |                          |  |

## **Notes or Special Guidance for Majors:**

- \*Course has prerequisite
- <sup>F</sup> Fall only course
- <sup>S</sup> Spring only course
- \*Offered every other year
- <sup>1</sup>Classes that meet CATC tags are MATH 231 (AAQR) and PHYS 221 or 231 (SP). Education classes that meet CATC Thematic Core tags: EDUC 225 (SI) and EDUC 497 (with EDUC 135 taken at Wheaton) meets the PI theme. Also see footnote 5. A maximum of 3 themes may be met with courses also counting for the major.
- <sup>2</sup> Summer courses through Wheaton in the Northwoods or HoneyRock are encouraged to meet the CATC Shared Course requirement courses: BITH 211, 213 and 315.
- <sup>3</sup> The Physics requirement can be met with either PHYS 221 and PHYS 222 or PHYS 231 and PHYS 232.
- <sup>4</sup> The chemistry capstone course (494) is only offered in the fall, therefore all chemistry secondary education majors must student teach in their spring semester.
- <sup>5</sup> This major requires an additional science course. Choose from: ENVR 221 (SP), ASTR 305 (SIP) or GEOL 211 (SP).
- <sup>6</sup> While EDUC 135, 136 and 136L must be taken together, EDUC 101 can be taken separately. All of these courses are offered in the fall and the spring and should be completed in the first year.

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<sup>&</sup>lt;sup>7</sup> EDUC 324L and EDUC 305L are taken concurrently the semester prior to student teaching.