

Total Major hours: 52
Suggested hours per semester: 16-18

Chemistry Major with a Biochemistry Concentration

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.

<p>Fall Semester 1 CHEM 231: General Chemistry I^F or CHEM 341: Organic Chem. I^{*F} MATH 231: Calculus I^{*1}</p> <p><i>CORE 101: First Year Seminar</i> <i>First-Year CATC options-</i></p> <ul style="list-style-type: none"> ▪ AHS 101: Wellness (2) ▪ COMM 101: Oral Comm (2) ▪ ENGW 103: First-Year Writing ▪ Language Core Competency or Thematic Core Course 	<p>Spring Semester 1 CHEM 232: General Chemistry II^{*S} or CHEM 342: Organic Chem. II^{*S} MATH 231: Calculus I[*], if not complete</p> <p><i>First-Year CATC options</i> <i>Language Core Competency</i> <i>BITH 211/ARCH 211: Old Testament</i></p>	<p>Summer 1</p> <p><i>Consider study, internship or research options – Wheaton In summer program, WIN (HoneyRock), Wheaton in the Black Hills, non-major internship, summer research</i></p>
<p>Fall Semester 2 CHEM 341: Organic Chemistry I^{*F}, if not complete CHEM 294: Chem. Colloquium (1)² PHYS 221: General Physics I^{1*F} or 231: Introductory Physics I^{1*F}</p> <p><i>Core Competency Courses (4-8)</i> <i>BITH 213/ARCH 213: New Testament</i></p>	<p>Spring Semester 2 CHEM 342: Organic Chemistry II^{*S}, if not complete CHEM 294: Chem. Colloquium (1)² PHYS 222: General Physics II^{*S} or 232: Introductory Physics II^{*S}</p> <p><i>BITH 315: Christian Thought*</i></p>	<p>Summer 2</p> <p><i>Consider study, internship or research options.</i></p>
<p>Fall Semester 3 CHEM 355: Intro. to Analytical Chem. (2)^{*F} CHEM 371: Physical Chem. I^{*F}</p> <p><i>Thematic Core Course (4-8)</i> <i>Advanced Integrative Seminar?*</i></p>	<p>Spring Semester 3 CHEM 336: Inorganic Chemistry^{*S} CHEM 461: Gen. Biochemistry^{*S} CHEM 455: Adv. Analytical I (2)^{*S,3}</p> <p><i>Thematic Core Course</i> <i>Advanced Integrative Seminar?*</i></p>	<p>Summer 3</p> <p><i>Consider study, internship or research options.</i></p>
<p>Fall Semester 4</p> <p>CHEM 494: Chemistry in Context (2)[*] CHEM 462: Adv. Biochemistry (2)^{*F} CHEM 457: Adv. Analytical II (2)^{*F,3} if 455 has not been taken yet</p> <p><i>Thematic Core Course (4-8)</i> <i>Complete CATC Coursework</i></p>	<p>Spring Semester 4</p> <p>CHEM 463: Biochemistry Analysis (2)^{*S} CHEM 455: Adv. Analytical I (2)^{*S,3} if neither 455 or 457 been taken yet</p> <p><i>Thematic Core Course</i> <i>Complete CATC Coursework</i></p>	<p>Summer 4</p>

Notes or Special Guidance for Majors:

* Course has prerequisite

^F Fall only course

^S Spring only course

¹ Classes that meet CATC tags: MATH 231 (AAQR), PHYS 231 (SP)

² CHEM 294 has two distinct courses that should be taken in order: first the fall course, followed by the spring course

³A big difference between the Basic Major and the Biochemistry Emphasis major is one can get by with only one semester of calculus and take algebra-based physics (PHYS 221/2). Beyond that, there are no electives in the major, other than which one of the two Adv. Analytical courses is taken: CHEM 455 or CHEM 457.