



Geology Major

Total Major hours: 44 (BA), 52 (BS)
Suggested hours per semester: 16-18

Major Academic Plan (MAP) for Catalog Year 2023-2024

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</p> <p>GEOL 212 Dynamic Earth and Environment¹ MATH 135 Calculus for Business/Social Science^{1,4} or MATH 235 Calculus I^{1,4,*} or PHYS 221 General Physics I^{1,4,F}</p> <p><i>CORE 101: First Year Seminar</i> <i>First-Year CATC options-</i></p> <ul style="list-style-type: none"> ▪ <i>COMM 101: Oral Comm (2)</i> ▪ <i>ENGW 103: First-Year Writing</i> ▪ <i>Language Core Competency or Thematic Core Course</i> 	<p>Spring Semester 1</p> <p>GEOL 212 Dynamic Earth and Environment¹, if not complete, or GEOL 321 Earth History and Stratigraphy^{1,#,*} Major Electives^{4,5} (1-4)</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 or other options. (See faculty for advising.)</i></p>
<p>Fall Semester 2</p> <p>CHEM 231 General Chemistry I^{1,3,4,F} Major Electives^{4,5} (1-4) MATH 135^{1,4,*} or 235^{1,4,*} or PHYS 221^{1,4,F}, if not complete</p> <p><i>Thematic Core or Core Competency Courses (4-8)</i> <i>BITH 213/ARCH 213: New Testament</i></p>	<p>Spring Semester 2</p> <p>GEOL 232 Environmental Geochemistry^{#,*} and GEOL 343 Fundamentals of Mineral Science (2)^{#,*} Major Electives^{4,5} (1-4)</p> <p><i>Thematic Core Course</i> <i>BITH 315: Christian Thought*</i> <i>Advanced Integrative Seminar?*</i></p>	<p>Summer 2</p> <p><i>Consider study, internship or research options –Wheaton In summer program, WIN (HoneyRock), non-major internship, summer research or other options. (See faculty for advising.)</i></p>
<p>Fall Semester 3</p> <p>GEOL 336 Process Geomorphology^{#,*} and GEOL 344 Igneous and Metamorphic Petrology^{#,*} Major Electives^{4,5} (1-4) MATH 263 Introduction to Statistics^{1,3} or B EC 321 Statistics³ or ENVR 341 Quantitative Methods^{1,4} for Environmental Analysis and Problem Solving³ or GEOL 341³</p> <p><i>Thematic Core Course</i> <i>Advanced Integrative Seminar?*</i></p>	<p>Spring Semester 3</p> <p>GEOL 443 Structural Geology^{#,*} GEOL 321 Earth History and Stratigraphy^{1,#,*}, if not complete Major Electives^{4,5} (1-4)</p> <p><i>Advanced Integrative Seminar?*</i> <i>Thematic Core Course</i></p>	<p>Summer 3</p> <p>GEOL 345 Sedimentary Geology (2)^{2,6,#,*} GEOL 412 Field Geology (6)^{2,6,#,*}</p>

Fall Semester 4	Spring Semester 4	Summer 4
GEOL 494 Senior Capstone (2)* Major Electives ^{4,5} (1-4) MATH 135 ^{1,4,*} or 235 ^{1,4,*} or PHYS 221 ^{1,4,F} , if not complete <i>Complete CATC Coursework</i>	GEOL 232 Environmental Geochemistry ^{#,*} and GEOL 343 Fundamentals of Mineral Science (2) ^{#,*} if not complete <i>Complete CATC Coursework</i>	

Notes or Special Guidance for Majors:

*Course has prerequisite

^F Fall only course

^S Spring only course

[#]Offered every other year

¹ Courses that meet the CATC Thematic Core tags: GEOL 212 (SP), GEOL 321 (SIP), GEOL 341 (AAQR), PHYS 221 (SP), MATH 263 (AAQR), MATH 135 (AAQR) or MATH 235 (AAQR), ENVR 341 (AAQR). A maximum of 3 Thematic Core tags can count toward the major and CATC requirements.

²GEOL 343^{#,*}, GEOL 344^{#,*} and GEOL 443^{#,*} must be taken in sequence prior to attending summer Field Camp⁶ (GEOL 345^{#,*}, GEOL 412^{#,*}).

³ Required for Bachelor of Arts only.

⁴ Required for Bachelor of Science only.

⁵ B.S. Geology students must choose a 4 hour elective credit in Geology. Choose from:

- GEOL 332 Studies in Regional Geology* (1-2, repeatable course)
- GEOL 341 Quant. Methods for Env. Analysis and Problem Solving (AAQR)
- GEOL 355 Introduction to Soil Science[#] (2)
- GEOL 371 Introduction to Geographic Information Systems (GIS)
- GEOL 372 GIS Practicum (2)
- GEOL 385 Topics in Earth Science (Climate Change, Petroleum Geology)* (2-4)
- GEOL 437 Hydrogeology*

⁶ Summer only course at the Wheaton Science Center.

-It is recommended that Bachelor of Science students also take PHYS 222^{S,*} and MATH 236*.