



# Geology Major

Total Major hours: 44 (BA), 52 (BS)  
Suggested hours per semester: 14-16

## Major Academic Plan (MAP) for Catalog Year 2024-2025

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><b>Fall Semester 1</b></p> <p>GEOL 212 Dynamic Earth and Environment<sup>1</sup>  MATH 135 Calculus for Business/ Social Science<sup>1,4*</sup> or MATH 235 Calculus I<sup>1,4*</sup>  CHEM 231 General Chemistry I<sup>1F</sup></p> <p><i>CORE 101: First Year Seminar</i>  <i>CORE 131: H. H. Flourishing (1)</i>  <i>First-Year CATC options-</i></p> <ul style="list-style-type: none"> <li>▪ <i>COMM 101: Oral Comm (2)</i></li> <li>▪ <i>ENGW 103: First-Year Writing</i></li> <li>▪ <i>Language Core Competency or Thematic Core Course</i></li> </ul>	<p><b>Spring Semester 1</b></p> <p>GEOL 212 Dynamic Earth and Environment<sup>1</sup>, if not complete  GEOL 232 Environmental Geochemistry<sup>#*</sup>  GEOL 343 Fundamentals of Mineral Science (2)<sup>#*</sup>  Major Electives<sup>4,5</sup> (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><b>Summer 1</b></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><b>Fall Semester 2</b></p> <p>GEOL 336 Process Geomorphology<sup>#*</sup>  GEOL 344 Igneous and Metamorphic Petrology<sup>#*</sup>  PHYS 221 General Physics I<sup>1,4,F</sup> or PHYS 231 Introductory Physics I<sup>4,F</sup>  Major Electives<sup>4,5</sup> (1-4)  MATH 135<sup>1,4*</sup> or 235<sup>1,4*</sup>, 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><b>Spring Semester 2</b></p> <p>GEOL 443 Structural Geology<sup>#*</sup>  Major Electives<sup>4,5</sup> (1-4)</p> <p><i>Thematic Core Course</i>  <i>BITH 315: Christian Thought*</i>  <i>Advanced Integrative Seminar?*</i></p>	<p><b>Summer 2</b></p> <p>GEOL 345 Sedimentary Geology (2)<sup>2,6#*</sup>  GEOL 412 Field Geology (6)<sup>2,6#*</sup></p>
<p><b>Fall Semester 3</b></p> <p>GEOL 321 Earth History and Stratigraphy<sup>1#*</sup>  CHEM 231<sup>1F</sup>, if not complete  Major Electives<sup>4,5</sup> (1-4)  MATH 263 Introduction to Statistics<sup>1,3</sup> or ECON 321 Statistics<sup>3</sup> or GEOL 341 Quantitative Methods<sup>1,4</sup> for Environmental Analysis and Problem Solving<sup>3</sup></p> <p><i>Thematic Core Course</i>  <i>Advanced Integrative Seminar?*</i></p>	<p><b>Spring Semester 3</b></p> <p>GEOL 232 Environmental Geochemistry<sup>#*</sup> and GEOL 343 Fundamentals of Mineral Science (2)<sup>#*</sup> if not complete  Major Electives<sup>4,5</sup> (1-4)</p> <p><i>Thematic Core Course</i>  <i>Advanced Integrative Seminar?*</i></p>	<p><b>Summer 3</b></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>

Fall Semester 4	Spring Semester 4	Summer 4
GEOL 336 Process Geomorphology <sup>#*</sup> and GEOL 344 Igneous and Metamorphic Petrology <sup>#*</sup> , if not complete GEOL 494 Senior Capstone (2) <sup>*</sup> Major Electives <sup>4,5</sup> (1-4) MATH 135 <sup>1,4*</sup> or 235 <sup>1,4*</sup> or PHYS 221 <sup>1,4<sup>F</sup></sup> or PHYS 231 <sup>4<sup>F</sup></sup> , if not complete  Complete CATC Coursework	GEOL 443 Structural Geology <sup>#*</sup> , if not complete Major Electives <sup>4,5</sup> (1-4)          Complete CATC Coursework	If not complete: GEOL 345 Sedimentary Geology (2) <sup>2,6#*</sup> GEOL 412 Field Geology (6) <sup>2,6#*</sup>

### Notes or Special Guidance for Majors:

\*Course has prerequisite

<sup>F</sup> Fall only course

<sup>S</sup> Spring only course

<sup>#</sup>Offered every other year

<sup>1</sup> 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). A maximum of 3 Thematic Core tags can count toward the major and CATC requirements.

<sup>2</sup>GEOL 343<sup>#,\*</sup>, GEOL 344<sup>#,\*</sup> and GEOL 443<sup>#,\*</sup> must be taken in sequence prior to attending summer Field Camp<sup>6</sup> (GEOL 345<sup>#,\*</sup>, GEOL 412<sup>#,\*</sup>).

<sup>3</sup> Required for Bachelor of Arts only.

<sup>4</sup> Required for Bachelor of Science only.

<sup>5</sup> 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<sup>#</sup> (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\*

<sup>6</sup> Summer only course at the Wheaton Science Center.