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.

Fall Semester 1	**Spring Semester 1**	**Summer 1**
GEOL 212 Dynamic Earth and Environment[1] 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] *CORE 101: First Year Seminar* *First-Year CATC options-* ▪ *COMM 101: Oral Comm (2)* ▪ *ENGW 103: First-Year Writing* ▪ *Language Core Competency or Thematic Core Course*	GEOL 212 Dynamic Earth and Environment[1], if not complete, or GEOL 321 Earth History and Stratigraphy[1,#,*] Major Electives[4,5] (1-4) *First-Year CATC Options* *Language Core Competency* *BITH 211/ARCH 211: Old Testament*	*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.)*
Fall Semester 2	**Spring Semester 2**	**Summer 2**
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 *Thematic Core or Core Competency Courses (4-8)* *BITH 213/ARCH 213: New Testament*	GEOL 232 Environmental Geochemistry[#,*] and GEOL 343 Fundamentals of Mineral Science (2)[#,*] Major Electives[4,5] (1-4) *Thematic Core Course* *BITH 315: Christian Thought** *Advanced Integrative Seminar?**	*Consider study, internship or research options –Wheaton In summer program, WIN (HoneyRock), non-major internship, summer research or other options. (See faculty for advising.)*
Fall Semester 3	**Spring Semester 3**	**Summer 3**
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 Statistics[3] or ENVR 341 Quantitative Methods[1,4] for Environmental Analysis and Problem Solving[3] or GEOL 341[3] *Thematic Core Course* *Advanced Integrative Seminar?**	GEOL 443 Structural Geology[#,*] GEOL 321 Earth History and Stratigraphy[1,#,*], if not complete Major Electives[4,5] (1-4) *Advanced Integrative Seminar?** *Thematic Core Course*	GEOL 345 Sedimentary Geology (2)[2,6,#,*] GEOL 412 Field Geology (6)[2,6,#,*]

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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 *Complete CATC Coursework*	GEOL 232 Environmental Geochemistry[#,*] and GEOL 343 Fundamentals of Mineral Science (2)[#,*] if not complete *Complete CATC Coursework*	

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.

[2]GEOL 343[#,*], GEOL 344[#,*] and GEOL 443[#,*] must be taken in sequence prior to attending summer Field Camp[6] (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[5,*] and MATH 236*.