

All students who declared their major during or after the Fall 2025 semester will follow these degree requirements.

Name: _____ CUNY ID: _____ Targeted Graduation: _____

| Course Code | Course Name | Course Credits | Credits Required | Class Taken ? | Semester Taken | Grade \neq | Pre-reqs |
|---|---|----------------|-------------------------------------|--------------------------|----------------|--------------|--|
| Introductory Courses | | | | | | | |
| GEOL 101 | Introduction to Planet Earth | 4 | 4 | <input type="checkbox"/> | | | |
| ENSCI 100 | Our Planet in the 21st Century | 4 | 4 | <input type="checkbox"/> | | | |
| Supporting Science Courses | | | | | | | |
| MATH 141 <u>or</u> 151 | Calculus/Differentiation <u>or</u> Calculus/Differentiation & Integration | 3 <u>or</u> 4 | 3 | <input type="checkbox"/> | | | MATH 141: MATH 122, or permission; MATH 151: A grade of B- or above in MATH 122 or dept permission |
| MATH 142 <u>or</u> 152 | Calculus/Integration <u>or</u> Calculus/Integration & Infinite Series | 3 <u>or</u> 4 | 3 | <input type="checkbox"/> | | | MATH 142: MATH 141; MATH 152: A grade of C- or better in MATH 151 |
| CHEM 113 | General Chemistry I (113.4 & 113.1) | 5 | 15 | <input type="checkbox"/> | | | A grade of C or better in MATH 115 (or equivalent) |
| CHEM 114 | General Chemistry II (114.4 & 114.1) | 5 | | <input type="checkbox"/> | | | MATH 122 (or equivalent) & a grade of C or better in CHEM 113 |
| PHYS 121 <u>or</u> 145 | General Physics I (121.4 & 121.1) <u>or</u> Principles of Physics I (145.4 & 145.1) | 5 | | <input type="checkbox"/> | | | PHYS 121: Trigonometry & algebra; PHYS 145: MATH 142 or 151 |
| PHYS 122 <u>or</u> 146 | General Physics II (122.4 & 122.1) <u>or</u> Principles of Physics II (146.4 & 146.1) | 5 | | <input type="checkbox"/> | | | PHYS 122: PHYS 121; PHYS 146: PHYS 121 or 145 & MATH 143 or 152 |
| Core Courses | | | | | | | |
| GEOL 102 | History of Earth and Life | 4 | 4 | <input type="checkbox"/> | | | GEOL 101 |
| GEOL 200 | Methods in Geoscience | 3 | 3 | <input type="checkbox"/> | | | GEOL 101 |
| GEOL 201* | Minerals and Crystals* | 3 | 12 (i.e., take four [4] courses) | <input type="checkbox"/> | | | GEOL 101, CHEM 113; recommended: GEOL 102, 200 |
| GEOL 203* | Igneous and Metamorphic Rocks* | 3 | | <input type="checkbox"/> | | | GEOL 201; recommended: GEOL 102, 200 |
| GEOL 208* | Sediments and Landscapes* | 3 | | <input type="checkbox"/> | | | GEOL 101; recommended: GEOL 102, 200 |
| GEOL 212W* | Sedimentary Rocks, Fossils, and Strata* | 3 | | <input type="checkbox"/> | | | GEOL 102; recommended: GEOL 200, 201, 208 |
| GEOL 214* | Faults, Folds, and Tectonics* | 3 | | <input type="checkbox"/> | | | GEOL 200; recommended: GEOL 102, PHYS 121, MATH 141 |
| GEOL 216 | Dynamics of Oceans and Atmospheres | 3 | | <input type="checkbox"/> | | | GEOL 101 or ENSCI 200, MATH 141; coreq: GEOL 102 |
| Capstone Courses | | | | | | | |
| GEOL 361* (361.3 & 361.1) | GEOL 361.3: Geological Problem Solving I* | 3 | 3 | <input type="checkbox"/> | | | GEOL 200 and at least two of GEOL 203, 208, 212W, & 214 or permission |
| | GEOL 361.1: Geological Problem Solving II* | 1 | 1 | <input type="checkbox"/> | | | GEOL 361.3 |
| Advanced and Elective Courses | | | | | | | |
| (Complete 9 credits worth of advanced/elective courses. Up to 3 credits of GEOL/ENSCI 383 may also count towards this requirement. In addition to 300-level courses, you may also choose to take <i>additional</i> GEOL 200-level courses to satisfy the advanced/elective requirement.) | | | | | | | |
| GEOL 318 | Soils in the Environment | 4 | 9 (i.e., take three [3] courses) | <input type="checkbox"/> | | | ENSCI 200 or permission |
| GEOL 328W | Volcanoes & Climate | 3 | | <input type="checkbox"/> | | | GEOL 201 or GEOL 216 or permission |
| GEOL 330 | Ice Ages and Paleoclimate | 3 | | <input type="checkbox"/> | | | GEOL 101, ENSCI 100; recommended: GEOL 208, ENSCI 200 |

| | | | | | |
|---|--------------------------------|-----------|--------------------------|--|--|
| GEOL 333* | Geophysics* | 3 | <input type="checkbox"/> | | GEOL 101, PHYS 121 or PHYS 145, MATH 141 or 151 |
| GEOL 347* | Surface Water and Groundwater* | 3 | <input type="checkbox"/> | | GEOL 200, CHEM 113, & PHYS 121 |
| GEOL 363* | GIS in Geoscience* | 3 | <input type="checkbox"/> | | GEOL 101; recommended: GEOL 200 |
| GEOL 365 | Coastal Science and Management | 3 | <input type="checkbox"/> | | GEOL 101 or ENSCI 200 or permission; recommended: one semester of BIOL and/or CHEM |
| GEOL 370 | Biogeochemistry | 3 | <input type="checkbox"/> | | ENSCI 200 or GEOL 101 & CHEM 113 |
| ENSCI 200 | Earth Systems Science | 3 | <input type="checkbox"/> | | ENSCI 100, GEOL 101, CHEM 113, & PHYS 121 |
| ENSCI 303 | Environmental Microbiology | 3 | <input type="checkbox"/> | | BIOL 105, GEOL 101, ENSCI 100, & ENSCI 200 or permission; recommended: CHEM 113 |
| GEOL/ENSCI 383 | Special Topics | 3 | <input type="checkbox"/> | | |
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| | | | | | |
| Additional elective courses may be offered. Up to 3 credits of GEOL/ENSCI 383 may also count. | | | | | By permission |
| Your total credits towards major | | | | | |
| Total required credits for major | | 61 | | | |

‡ Students must receive at least a C- grade for a class to count towards their major.

* This course is a recommended choice for students interested in obtaining the New York State Professional Geologist license.

CLASS FREQUENCY INFORMATION (the following are rough guidelines that are subject to change):

- Introductory and Supporting Science Courses are *typically* offered every semester
- GEOL 102 and 200 are *typically* offered every other semester in the Fall
- GEOL 216 is *typically* offered every other semester in the Spring
- GEOL 201, 203, 208, 212W, and 214 are *typically* offered on a 3-semester rotation
- GEOL 361 is currently only offered every other academic year.
- Advanced/Elective Courses do not have a set frequency

OTHER NOTES:

- ***The Geology BS in SEES is the only degree program in CUNY (and the greater NYC area) that satisfies the New York State Professional Geologist licensure requirements.***
- Students interested in the New York State Professional Geologist title are advised to take GEOL 333, 347, and 363 as electives.
- It is strongly recommended that students take courses in the "Supporting Science" category as early as possible in the major.
- **Advanced elective courses may be substituted for additional 200-level core courses.**
- Two semesters of Chemistry and calculus-based Physics (145 and 146) are recommended for students applying to graduate school.