

2025-2026 Academic Year

Requirements Effective Fall 2023

Min. Grad. Req: 120 Hrs., 30 UD Hrs., 2.0 GPA Institutional & Cumulative

Reviewed by: _____

Date: _____

(B.S.) GEOLOGICAL SCIENCE

Name & Student ID # _____

Expected Graduation Date: _____

General Education Requirements

- 3 THEO 110 Intro to Christianity
 - 3 BLIT 210 Christian Scriptures
 - 3 CMIN 310 Christian Living
 - 2-3 Approved Stewardship Course* _____
 - 3 ENGL 109 College Writing I
 - 3 ENGL 207 College Writing II (CSE)
 - 3 COMM 105 Fundamentals of Communication
 - 3 HIST 200 Western Civilization
 - 3 Approved Social Science Course* _____
 - 6 Approved Humanities Courses*
- Select 3 hours from two different areas:**
Fine Arts, Literature, Philosophy, or SPAN 212
- 3-8 Elementary Foreign Language I & II (SPAN 111/112 or FREN 101/102)
OR an approved Intercultural Understanding course*
- 3-4 BIOL 105 Biology for the Global Citizen **OR**
approved biological science course* _____

* See olivet.edu/registrar for an approved list of courses

- Students completing a minor must complete a minimum of 6 unique hours between major and minor.
- Students pursuing a double major or greater must complete a minimum of 20 unique hours (excludes supporting courses)

Major: 35.5-38 Hours (2.0 GPA Required)

- 4 ESS 105 The Dynamic Earth (GER:PHYS SCI)
- 3 ESS 200 Earth's Natural History
- 1 ESS 201 Sedimentary Rocks Lab
- 4 ESS 302 Mineral Science
- 4 ESS 357 The Rock Cycle and Ore Deposits
- 4 ESS 366 Geologic Structures and Tectonics
- 0.5-2 ESS 390 Seminar in Earth & Space Sci (Take every Spring)
____ Spring Sem 1 ____ Spring Sem 2
____ Spring Sem 3 ____ Spring Sem 4

Required Supporting Courses:

- 4 CHEM 103 General Chemistry I (GER:PHYS SCI)
- 3-4 MATH 120 Intro to Statistics (GER: MATH) **OR**
MATH 241 Statistics (GER: MATH)
- 4 MATH 147 Calculus I
- 4 PHYS 121/201 Physics I

Plus completion of one concentration:

A. General Concentration (18-19 Hours)

- 3 ESS 109 Earth's Oceans and Atmosphere
- 3 ESS 332 Water Resource Issues (GER: STWD)
- 3-4 ESS 385 Earth & Environmental Chemistry (Prereq: CHEM 104)
OR ESS 394 Physics of the Earth (Prereq: PHYS 122 or 202)
- 3 GEOG 222 Earth's Landscapes/Natural Hazards
- 3 GEOG 340 Natural Resources/Environ Issues (GER: IU)
- 3 GEOG 360 GIS/GPS

B. Geochemistry Concentration (26-29 Hours)

- 4 CHEM 104 General Chemistry II
- 3 ESS 109 Earth's Oceans and Atmosphere
- 4 ESS 332 Water Resource Issues (GER: STWD)
- 4 ESS 385 Earth & Environmental Chemistry

Plus 3 of the following:

- 4 CHEM 301 Quantitative Analysis
- 5 CHEM 311 Organic Chemistry I
- 5 CHEM 312 Organic Chemistry II
- 3 CHEM 320 Inorganic Chemistry
- 4 CHEM 410 Instrumental Methods of Analysis
- 4 CHEM 482 Physical Chemistry Survey

C. Geotechnical Concentration (29-32 Hours)

- 3 ESS 394 Physics of the Earth
 - 4 PHYS 201 General Physics I
 - 4 PHYS 202 General Physics II
- ##### Plus 2 of the following:
- 3 ESS 332 Water Resource Issues (GER: STWD)
 - 3 GEOG 222 Earth's Landscapes/Natural Hazards
 - 3 GEOG 340 Natural Resources/Environ Issues (GER: IU)
 - 3 GEOG 360 GIS/GPS

Plus 4 of the following:

- 3 ENGR 210 Thermofluids Engineering
- 3 ENGR 212 Engineering Mechanics **OR**
3 ENGR 213 Statics **AND**
3 ENGR 216 Mechanics of Materials
- 3 ENGR 235 Intro to Environmental Engineering
- 3 ENGR 354 Intro to Soil Mechanics
- 3 ENGR 451 Storm Water Hydraulics/Hydrology

See reverse for additional requirements...

D. Life Science Concentration (25 Hours)

- 4 BIOL 126 Biology II (GER: BIOL SCI)
- 3 ESS 109 Earth's Oceans and Atmosphere
- 3 ESS 332 Water Resource Issues (GER: STWD)
- 3 GEOG 360 GIS/GPS