

GEOLOGY

B.S.

NAME

I.D.#

Expected Grad Date

Degree

General Education Requirements

<u>3</u>	THEO 110 Intro to Christianity
<u>3</u>	BLIT 210 Christian Scriptures
<u>3</u>	CMIN 310 Christian Living
<u>2-3</u>	Approved Stewardship Course* _____
<u>3</u>	ENGL 109 College Writing I
<u>3</u>	ENGL 207 College Writing II (CSE)
<u>3</u>	COMM 105 Fundamentals of Communication
<u>3</u>	HIST 200 Western Civilization
<u>3</u>	Approved Social Science Course* _____
<u>6</u>	Approved Humanities Courses* Select 3 hours from <u>two</u> different areas: Fine Arts, Literature, Philosophy, Modern Languages _____
<u>3-8</u>	Elementary Foreign Language I and II OR Approved International Culture course* _____

*See olivet.edu/registrar for approved list of courses**Major: 37.5 – 53 hours – 2.000 required in major**

<u>4</u>	ESS 105 The Dynamic Earth
<u>3</u>	ESS 200 Earth's Natural History
<u>4</u>	ESS 302 Mineral Science
<u>4</u>	ESS 357 The Rock Cycle & Ore Deposits
<u>4</u>	ESS 366 Geologic Structures & Tectonics
<u>0.5-2</u>	ESS 390 Seminar in Earth & Space Science (.5 – taken 4x, every Spring in the ESS program)

Required Supporting Courses:

<u>4</u>	CHEM 103 General Chemistry I
<u>3-4</u>	MATH 120 Intro to Statistics or MATH 241 Statistics
<u>4</u>	MATH 147 Calculus I
<u>4</u>	PHYS 121/201 Physics I

Plus completion of one concentration:**A. General Concentration**

<u>3</u>	ESS 109 Earth's Oceans & Atmosphere
<u>3</u>	ESS 222 Earth's Landscapes/Natural Hazards
<u>3</u>	ESS 332 Water Resource Issues
<u>3</u>	ESS 340 Natural Resources/Environmental Issues
<u>3</u>	ESS 360 GIS/GPS
<u>3-4</u>	ESS 385 Earth & Environmental Chemistry or ESS 394 Physics of the Earth

B. Geochemistry Concentration

<u>4</u>	CHEM 104 General Chemistry II
<u>3</u>	ESS 109 Earth's Oceans & Atmosphere
<u>3</u>	ESS 332 Water Resource Issues
<u>4</u>	ESS 385 Earth & Environmental Chemistry

Plus 3 of the following:

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

C. Geotechnical Concentration

<u>3</u>	ESS 394 Physics of the Earth
<u>4</u>	PHYS 201 General Physics I
<u>4</u>	PHYS 202 General Physics II

Plus 2 of the following:

<u>3</u>	ESS 222 Earth's Landscapes/Natural Hazards
<u>3</u>	ESS 332 Water Resource Issues
<u>3</u>	ESS 340 Natural Resources/Environmental Issues
<u>3</u>	ESS 360 GIS/GPS

Plus 4 of the following:

<u>3</u>	ENGR 210 Thermo-Fluids Engineering
<u>4</u>	ENGR 212 Engineering Mechanics or <u>3</u> ENGR 213 Statics AND <u>3</u> ENGR 216 Mechanics of Materials
<u>3</u>	ENGR 235 Intro to Environmental Engineering
<u>3</u>	ENGR 354 Intro to Soil Mechanics
<u>3</u>	ENGR 451 Storm Water Hydraulics/Hydrology

See reverse for additional requirements:

D. Life Science Concentration

- 4 BIOL 126 Biology II
- 3 ESS 109 Earth's Oceans & Atmosphere
- 3 ESS 332 Water Resource Issues
- 3 ESS 360 GIS/GPS

Plus 3 of the following:

- 4 BIOL 331 Conservation Biology
- 4 BIOL 352 Advanced Botany
- 4 BIOL 360 Invertebrate Zoology
- 4 BIOL 368 Vertebrate Natural History & Anatomy
- 4 BIOL 370 Ecology
- 4 BIOL 448 Comparative Vertebrate Anatomy

Recommended Supporting Courses:

- 4 CHEM 104 General Chemistry II
- 3 ECON 110 Principles of Economics
- 4 MATH 148 Calculus II
- 4 PHYS 122/202 Physics II