

KU B.S. Geology Requirements

Geology majors develop a holistic view of the Earth by applying the fundamentals of chemistry, physics, and biology, and specialized geological knowledge toward problem-solving. Kutztown University's geology program meets all the curriculum requirements for becoming a licensed professional geologist. Geology graduates have the skills and knowledge necessary to directly work as professionals in the Geoscience workforce and/or enter graduate school. Recent geology graduates work as hydrogeologists providing clean water to municipalities; as geophysicists and geotechnical workers in engineering applications ensuring we have safe bridges and foundations; as environmental geologists cleaning contaminated aquifers to protect the health and safety of the community; and mineral exploration geologists discovering the materials of which civilization is made.

Note that all students must achieve 120 undergraduate credits and a minimum 2.0 overall GPA to graduate. The final major-GPA requirement for Geology is 2.0.

Required Geology Core Courses – 38 credits

GEOL 100 Physical Geology (4 credits)
GEOL 102 Historical Geology (4 credits)
GEOL 200 Field Geology (3 credits)
GEOL 220 Mineralogy (4 credits)
GEOL 230 Paleontology (3 credits)
GEOL 304 Structural Geology (4 credits)
GEOL 316 Petrology & Geochemistry (4 credits)
GEOL 346 Sedimentology & Stratigraphy (4 credits)
GEOL 358 Geophysics (3 credits)
GEOL 362 Hydrogeology (3 credits)
GEOL 380 Senior Seminar (2 credits)

Geology Major Electives – 6 credits

Choose 6 credits of major electives from the following list.

GEOL 205 Planetary Surface Processes (3 credits)
GEOL 210 Environmental Geology (3 credits)
GEOL 302 Economic Geology (3 credits)
GEOL 366 Marine Geology (3 credits)
GEOL 368 Research in Geology I (1-3 credits)
GEOL 369 Research in Geology II (1-3 credits)
GEOL 371-373 Selected Topics (1-6 credits)
GEOL 390 Internship in Geology (1-4 credits)
GEOL 398 Honors Suppl. Research (1-3 credits)

Other Required Courses – 12 to 14 credits

CHEM 100 General Chemistry I (4 credits)

PHYS 42 General Physics II or PHYS 102 Physics II (4 credits)

Mathematics**Option 1**

MATH 181 Calculus I (4 credits)

Option 2

MATH 106 Trigonometry (3 credits)

MATH 122 Applied Calculus (3 credits)

Directed General Education Courses – 12 credits

PHYS 40 General Physics I or PHYS 100 Physics I – Category C1 (4 credits)

CHEM 102 General Chemistry II – Category C2 (4 credits)

BIOL 104 Principles of Biology – Category C3 (4 credits)

University Electives – 17 to 19 credits

Program Plan Code: BS_GEOL

Effective Date: Fall 2018

KU B.S. Geology Major Check Sheet

Student Name:

Student ID Number:

This check sheet provides a mechanism for students and advisors to keep track of a student's progress in the program. Please refer to the program requirements for more details regarding options.

Note that all students must achieve 120 undergraduate credits and a minimum 2.0 overall GPA to graduate. The final major-GPA requirement for Geology is 2.0.

Geology Required Core Courses – 38 credits

GEOL 100 Physical Geology	4 credits	Grade:
GEOL 102 Historical Geology	4 credits	Grade:
GEOL 200 Field Geology	3 credits	Grade:
GEOL 220 Mineralogy	4 credits	Grade:
GEOL 230 Paleontology	3 credits	Grade:
GEOL 304 Structural Geology	4 credits	Grade:
GEOL 316 Petrology & Geochemistry	4 credits	Grade:
GEOL 346 Sedimentology & Stratigraphy	4 credits	Grade:
GEOL 358 Geophysics	3 credits	Grade:
GEOL 362 Hydrogeology	3 credits	Grade:
GEOL 380 Senior Seminar	2 credits	Grade:
Total Credits	38 total credits	

Geology Major Electives – 6 credits

Course 1:	credits	Grade:
Course 2:	credits	Grade:
Total Credits	6 total credits	

Other Required Courses – 12 to 14 credits

CHEM 100 General Chemistry I	4 credits	Grade:
PHYS 42 General Physics II <i>or</i> PHYS 102 Physics II	4 credits	Grade:
MATH 181 Calculus I <i>or</i> MATH 106 Trigonometry <i>and</i> MATH 122: Applied Calculus	credits	Grade:
Total Credits	12-14 total credits	

Directed General Education Courses – 12 credits

PHYS 40 General Physics I <i>or</i> PHYS 100: Physics I (Category C1)	4 credits	Grade:
CHEM 102 General Chemistry II (Category C2)	4 credits	Grade:
BIOL 104 Principles of Biology (Category C3)	4 credits	Grade:
Total Credits	12 total credits	

University Electives – 17 to 19 credits

Course 1:	credits	Grade:
Course 2:	credits	Grade:
Course 3:	credits	Grade:
Course 4:	credits	Grade:
Course 5:	credits	Grade:
Course 6:	credits	Grade:
Total Credits	17-19 total credits	

Summary of Graduation Requirements

Total credits from major courses	56-58
Total credits from general education program	45
Total credits from university electives	17-19
Minimum total credits to graduate	120
Minimum overall GPA	2.0
Minimum GPA in major program	2.0
Comprehensive Exam	PASS

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KU B.S. Geology 8-Semester Planner

Student Name:

Student ID Number:

Each semester listed below provides information including course categories, typical credit hours (CH.), and space to add specific course selections. This planner is a suggested path. Consult with your advisor regarding your unique plans and interests as you make choices about your schedule.

First Semester Plan

Major	GEOL 100	4 CH.	Selection:
Major	CHEM 100	4 CH.	Selection:
Major	MATH 106	3 CH.	Selection:
Gen Ed	FYSM 100	3 CH.	Selection: FYSM100 -
Total		14 CH.	

Second Semester Plan

Major	GEOL 102	4 CH.	Selection:
Major	CHEM 102 (Category C2)	4 CH.	Selection:
Major	MATH 122 or 181	3-4 CH.	Selection:
Gen Ed	Category A1	3 CH.	Selection:
Total		14-15 CH.	

Third Semester Plan

Major	GEOL 220	4 CH.	Selection:
Gen Ed	PHYS 040 or 100 (Category C1)	4 CH.	Selection:
Gen Ed	Category A3	3 CH.	Selection:
Gen Ed	Category B	3 CH.	Selection:
Elective	University Elective	1-2 CH.	Selection:
Total		15-16 CH.	

Fourth Semester Plan

Major	GEOL 316	4 CH.	Selection:
Major	PHYS 042 or 102	4 CH.	Selection:
Gen Ed	BIOL 104 (Category C3)	4 CH.	Selection:
Gen Ed	Category A2	3 CH.	Selection:
Total		15 CH.	

Fifth Semester Plan

Major	GEOL 358	3 CH.	Selection:
Major	GEOL 200	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Gen Ed	Category A4	3 CH.	Selection:
Total		15 CH.	

Sixth Semester Plan

Major	GEOL 362	3 CH.	Selection:
Major	GEOL 304	4 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Gen Ed	Category B	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Total		16 CH.	

Seventh Semester Plan

Major	GEOL 346	4 CH.	Selection:
Major	Geology Elective	3 CH.	Selection:
Gen Ed	Category D	3 CH.	Selection:
Gen Ed	Category B	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Total		16 CH.	

Eighth Semester Plan

Major	GEOL 230	3 CH.	Selection:
Major	GEOL 380	2 CH.	Selection:
Major	Geology Elective	3 CH.	Selection:
Gen Ed	Category D	3 CH.	Selection:
Gen Ed	Category D	3 CH.	Selection:
Total		14 CH.	

Additional Notes:

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