

B.S. GEOLOGY (Geology Subplan) CHECKLIST of required courses for major

The Geology Subplan is designed for someone who wants to become a professional geoscientist. This degree will provide excellent preparation for pursuing an advanced degree in Geology and related Geosciences.

Geology Core Courses: 9-10 courses, 33-34 credits

Course	Credits	When to take:
GEOLOGY 101 – The Earth, <i>or take</i>	4	1 st year, either semester
GEOLOGY 131 - Experiencing Geology Lab <i>plus</i>	(1)	1 st year, either semester
GEOLOGY 103 - Intro to Oceanography <i>or</i>	(4)	1 st year, either semester
GEOLOGY 105 - Dynamic Earth <i>or</i>	(4)	1 st year, either semester
GEOGRAPHY 110 – Global Environmental Change	(4)	1 st year, either semester
GEOLOGY 201 – History of the Earth	4	1 st or 2 nd year, spring semester
GEOLOGY 231 – Geological Field Methods	3	2 nd year, spring semester
GEOLOGY 311 – Mineralogy	4	3 rd year, fall semester, after or concurrent with CHEM 111
GEOLOGY 321 – Petrology	4	3 rd year, spring semester, after GEOSCI 311
GEOLOGY 331 – Geological Mapping	3	3 rd year, fall semester
GEOLOGY 431 – Structural Geology	4	4 th year, fall semester, after MATH 131/132 and PHYSICS 131/132
GEOLOGY 445 – Sedimentology	4	4 th year, fall semester, after MATH 131/132 and PHYSICS 131/132
GEOLOGY 494LI – Living on Earth <i>fulfills Gen. Ed “Integrative Experience” requirement</i>	3	3 rd or 4 th year, fall semester

Supporting Science Courses: 7 courses, 25-27 credits

Course	Credits	When to take:
MATH 131 – Calculus I (preferred), <i>or take</i>	4	1 st or 2 nd year, either semester
MATH 127 – Calculus for Life/Social Sci. I	(3)	
MATH 132 – Calculus II (preferred), <i>or take</i>	4	1 st or 2 nd year, either semester
MATH 128 – Calculus for Life/Social Sci. II	(3)	
CHEM 111 – General Chemistry I with lab	4	1 st or 2 nd year, either semester
CHEM 112 – General Chemistry II with lab	4	1 st or 2 nd year, either semester
PHYSICS 131 – Intro Physics I with lab, <i>or take</i>	4	1 st or 2 nd year, either semester
PHYSICS 151 – General Physics I with lab	(4)	1 st or 2 nd year, either semester
PHYSICS 132 – Intro Physics II with lab, <i>or take</i>	4	1 st or 2 nd year, either semester
PHYSICS 152 – General Physics II with lab	(4)	1 st or 2 nd year, either semester
NATSci 387 – CNS Junior Year Writing <i>fulfills Gen.Ed. “Junior-Year Writing” requirement</i>	3	3 rd or 4 th year, either semester

Geology Electives: 3-4 courses*, 12 credits

Select from 300- to 600-level Geology (odd course numbers) or physical geography (*some* even course numbers).

***CONSULT WITH YOUR UNDERGRADUATE ADVISOR BEFORE SELECTING ELECTIVES.**

Junior or senior research projects, senior thesis, or independent study with individual faculty members are strongly encouraged. GEOLOGY 396 and GEOLOGY 496 credits contribute towards Geology B.S. electives.

Examples of Geology electives: Not all electives are offered each semester. **Consult with faculty for schedule and prerequisites.**

415 – Intro to Geochemistry	571 – General Geophysics	591V – Volcanology
515 – X-ray Fluorescence Analysis	575 – Paleomagnetism	595D – Physical Oceanography
517 – Sedimentary Geochemistry	587 – Hydrogeology	597I – Isotope Geochemistry
519 – Aqueous/Enviro. Geochemistry	591D – Spatial Data Analysis	615 – Organic and Biogeochemistry
531 – Tectonics	591E – Ecohydrology	627 – Clay Petrology
555 – Dynamic Digital Maps	591G – Granites and Rhyolites	687 – Advanced Hydrogeology
557 – Coastal Processes	591J – Microprobe Analysis	691C – Optical Mineralogy
563 – Glacial Geology	591N – Climate Modeling	
567 – Planetary Geology	591P – Paleoceanography	

Examples of Physical Geography electives:

340 – Quantitative Methods in Geog.	426 – Remote Sensing & Image Interp.	510 – Natural Hazards
352 – Computer Mapping	458 – Climate Change	560 – Geomorphology
354 – Climatology	468 – GIS and Spatial Data Analysis	

**For further information, contact:*

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