

**B.S. GEOLOGY (Geology Subplan)****CHECKLIST of required courses for major****Geology Core Courses: 9-10 courses, 33-34 credits**

Course	Credits	When to take:
GEOSCI 101 – The Earth <i>or take</i>	4	1 <sup>st</sup> year, either semester
GEOSCI 131 - Experiencing Geology Lab <i>and either</i>	(1)	1 <sup>st</sup> year, either semester
GEOSCI 103 - Intro to Oceanography <i>or</i>	(4)	1 <sup>st</sup> year, either semester
GEOSCI 105 - Dynamic Earth	(4)	1 <sup>st</sup> year, either semester
GEOSCI 201 – History of the Earth	4	1 <sup>st</sup> or 2 <sup>nd</sup> year, spring semester
GEOSCI 231 – Geological Field Methods	3	2 <sup>nd</sup> year, spring semester
GEOSCI 311 – Mineralogy	4	3 <sup>rd</sup> year, fall semester, after CHEM 111
GEOSCI 321 – Petrology	4	3 <sup>rd</sup> year, spring semester, after GEOSCI311
GEOSCI 331 – Geological Mapping	3	3 <sup>rd</sup> year, fall semester
GEOSCI 431 – Structural Geology	4	4 <sup>th</sup> year, fall semester, after MATH 131/132 and PHYSICS 131/132
GEOSCI 445 – Sedimentology	4	4 <sup>th</sup> year, fall semester, after MATH 131/132 and PHYSICS 131/132
GEOSCI 494LI – Living on Earth <i>fulfills Gen. Ed. "Integrative Experience" requirement</i>	3	3 <sup>rd</sup> or 4 <sup>th</sup> year, fall semester

**Supporting Science Courses: 7 courses, 25-27 credits**

Course	Credits	When to take:
MATH 131 – Calculus I <i>or take</i>	4	1 <sup>st</sup> or 2 <sup>nd</sup> year, either semester
MATH 127 – Calculus for Life/Social Sci. I	(3)	
MATH 132 – Calculus II <i>or take</i>	4	1 <sup>st</sup> or 2 <sup>nd</sup> year, either semester
MATH 128 – Calculus for Life/Social Sci. II	(3)	
CHEM 111 – General Chemistry I	4	1 <sup>st</sup> or 2 <sup>nd</sup> year, either semester
CHEM 112 – General Chemistry II	4	1 <sup>st</sup> or 2 <sup>nd</sup> year, either semester
PHYSICS 131 – Introductory Physics I <i>or take</i>	4	1 <sup>st</sup> or 2 <sup>nd</sup> year, either semester
PHYSICS 151 – General Physics I	(4)	1 <sup>st</sup> or 2 <sup>nd</sup> year, either semester
PHYSICS 132 – Introductory Physics II <i>or take</i>	4	1 <sup>st</sup> or 2 <sup>nd</sup> year, either semester
PHYSICS 152 – General Physics II	(4)	1 <sup>st</sup> or 2 <sup>nd</sup> year, either semester
NATSCI 397A – CNS Junior Year Writing <i>fulfills Gen.Ed. "Junior-Year Writing" requirement</i>	3	3 <sup>rd</sup> or 4 <sup>th</sup> 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, thesis, or independent study with individual faculty members are strongly encouraged.** GEOSCI396 and GEOSCI496 credits contribute towards Geology-B.S. electives.

<b>Geology electives:</b> 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	
<b>Physical Geography electives:</b>		
340 – Quantitative Methods in Geog.	426 – Remote Sensing	510 – Natural Hazards
352 – Computer Mapping	458 – Climate Change	560 – Geomorphology
354 – Climatology	468 – GIS and Spatial Data Analysis	594Q – Advanced Remote Sensing

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