

BACHELOR OF SCIENCE, MAJOR IN GEOLOGY (GEOSCIENCE)

Additional information: Reference the Program Landing Page (<https://www.shsu.edu/programs/bachelor-of-science-in-geology/>) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

Code	Title	Hours
Bachelor of Science, Major in Geology (Geoscience)		
Core Curriculum (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/)		
Component Area I (Communication)		6
Component Area II (Mathematics) ¹		3
Component Area III (Life and Physical Science) ²		8
Component Area IV (Language, Philosophy, and Culture)		3
Component Area V (Creative Arts)		3
Component Area VI (U.S. History)		6
Component Area VII (Political Science/Government)		6
Component Area VIII (Social and Behavioral Sciences)		3
Component Area IX (Component Area Option) ¹		4
Degree Specific Requirements		
CHEM 1411 & CHEM 1412	General Chemistry I and General Chemistry II ²	8
Select two of the following or more advanced courses:		6-8
MATH 1314	Pre Calculus Algebra ¹	
MATH 1316	Plane Trigonometry ¹	
MATH 1410	Elementary Functions ¹	
MATH 1420	Calculus I ¹	
PHYS 1301 & PHYS 1101 or PHYS 1411	General Physics-Mechanics and Heat and General Physics Laboratory I Introduction To Physics I	4
PHYS 1302 & PHYS 1102 or PHYS 1422	General Physics-Sound, Light, Electricity, and Magnetism and General Physics Laboratory II Introduction To Physics II	4
Major: Foundation		
GEOL 1403 or GEOL 1405	Physical Geology Geologic & Environmental Hazards	4
GEOL 1404 & GEOL 3301	Historical Geology and Field Methods	7
GEOL 3404 & GEOL 3405	Mineralogy and Petrology	8
GEOL 4304	Geochemistry	3
GEOL 4400 & GEOL 4402	Stratigraphy & Sedimentation and Structural Geology	8
GEOL 4426 or GEOL 4320	Hydrogeology Petroleum Geology	4
Major: Prescribed Advanced Electives		
Advanced Geology electives		15
Minor: Required		
Minor (Advanced)		6
Minor		12
Total Hours		120-122

¹ MATH 1410 or MATH 1420 satisfy one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option). If the mathematics requirement is satisfied by MATH 1316 and MATH 1314, then KINE 2115 is recommended to satisfy the Core Curriculum requirement for Component Area IX (Component Area Option).

2 Bachelor of Science, Major in Geology (Geoscience)

² CHEM 1411 and CHEM 1412 satisfy the Core Curriculum requirement for Component Area III (Life and Physical Science) and the Degree Specific requirement.

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.0 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

A minor in geography, science, or mathematics is strongly recommended.

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First Year

Fall	Hours	Spring	Hours	Summer	Hours
Component Area IX ¹		1 CHEM 1411 ³		4 GEOL 3301	3
ENGL 1301 ²		3 ENGL 1302 ²		3	
GEOL 1403 or 1405		4 GEOL 1404		4	
MATH 1314 or 1410 ¹		3-4 MATH 1420 or 1316 ²		3-4	
PHYS 1301 & PHYS 1101 (or PHYS 1411)		4			
		15-16			14-15
					3

Second Year

Fall	Hours	Spring	Hours
CHEM 1412 ³		4 GEOL 3405	4
GEOL 3404		4 PHYS 1302 & PHYS 1102 (or PHYS 1422)	4
Minor		3 POLS 2306 ⁴	3
POLS 2305 ⁴		3 Minor	3
		14	14

Third Year

Fall	Hours	Spring	Hours
Component Area IV (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv)		3 Component Area V (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3
GEOL 4400		4 GEOL 4402	4
GEOL Advanced Elective		3 GEOL Advanced Elective	3
HSTY 1301 ⁵		3 HSTY 1302 ⁵	3
Minor		3 Minor	3
		16	16

Fourth Year

Fall	Hours	Spring	Hours
Component Area VIII (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)		3 Component Area IX (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	3
GEOL 4304		3 GEOL 4426 or 4320	4
GEOL Advanced Elective		3 GEOL Advanced Elective	3
GEOL Advanced Elective		3 Minor (Advanced)	3
Minor (Advanced)		3	
		15	13

Total Hours: 120-122

- ¹ Satisfies the Core Curriculum requirement for Component Area II (Mathematics) and one semester credit hour of Component Area IX (Component Area Option) if MATH 1410 or MATH 1420 is included. If both MATH 1314 and MATH 1316 satisfy the mathematics requirement, then KINE 2115 is recommended to fulfill the requirement for Component Area IX (Component Area Option) requirement.
- ² Satisfies Core Curriculum requirement for Component Area I (Communications).
- ³ Satisfies four semester credit hours of the Core Curriculum requirement for Component Area III (Life and Physical Science).
- ⁴ Satisfies the Core Curriculum requirement for Component Area VII (Political Science/Government).
- ⁵ Satisfies the Core Curriculum requirement for Component Area VI (U.S. History).

Notes

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Students must earn a 2.0 minimum SHSU GPA in all coursework.

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The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The BS in Geology (Geoscience) is designed to provide graduates with the following marketable skills:

- Observation, data collection, analysis, and interpretation.
- Prepare, process, and present data.
- Handle information in a range of different mediums, e.g. textual, numerical, oral, graphical.
- Written and verbal communication skills.
- Report writing skills.
- Problem-solving skills and lateral thinking.
- Self-motivation and resilience.
- Team-working skills and the ability to work on your own initiative.