

# BACHELOR OF SCIENCE, MAJOR IN GEOGRAPHY, GEO-SPATIAL INFORMATION SCIENCES

Code	Title	Hours
<b>Bachelor of Science, Major in Geography, Geo-spatial Information Sciences</b>		
<b>Core Curriculum</b> ( <a href="https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/">https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/</a> )		
Component Area I (Communication)		6
Component Area II (Mathematics) <sup>1</sup>		3
Component Area III (Life and Physical Science) <sup>2</sup>		8
Component Area IV (Language, Philosophy, and Culture) <sup>3</sup>		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) <sup>4</sup>		3
Component Area IX (Component Area Option)		4
<b>Degree Specific Requirements</b>		
Eight hours (two courses) of Life and Physical Sciences (beyond the Core Curriculum)		8
MATH 1342	Elementary Statistics <sup>1</sup>	3
or STAT 3379	Statistical Methods in Practice	
or GEOG 4374	Geostatistics	
<b>Major: Foundation</b>		
GEOG 1401	Weather and Climate <sup>2</sup>	4
GEOG 3301	Environmental Geography	3
GEOG 3350	Cultural Geography	3
Introductory Geography (Choose one from the following:) <sup>5</sup>		3
GEOG 1300	People, Places, and the Environment <sup>4</sup>	
GEOG 2355	World Regional Geography: Europe, Asia, and Australia <sup>3</sup>	
GEOG 2356	World Regional Geography: Latin America, Africa, South Asia <sup>3</sup>	
Introductory Physical Geography (Choose one from the following:) <sup>6</sup>		3
GEOG 2341	Physical Geography	
GEOG 3320	Sustainability & Environment	
GEOL 1403	Physical Geology	
GEOL 1405	Geologic & Environmental Hazards	
<b>Major: Required</b>		
GEOG 2464	Introduction to Geographic Information Systems (GIS)	4
GEOG 3363	Computer Cartography	3
GEOG 4361	Geographic Information Systems for Public Health	3
GEOG 4365	Applied Geographic Information Systems (GIS)	3
GEOG 4367	GIS Programming	3
GEOG 4468	Remote Sensing	4
Applied Cognate (Choose three from the following:)		9
GEOG 3310	Sustainable Development	
GEOG 3352	Tourism Geography	
GEOG 4100	Earth and Environment Seminar	
GEOG 4330	Hydrology and Water Resources	
GEOG 4331	Conservation of Natural Resources	
GEOG 4333	Field Studies	
GEOG 4351	Economic Geography	
GEOG 4356	Urban Geography	
GEOG 4357	Population Geography	

GEOG 4359	Transportation Geography	
GEOG 4432	Geomorphology	
<b>Major: Prescribed Electives</b>		
GEOG Advanced Electives <sup>7</sup>		4
<b>Minor: Required <sup>8</sup></b>		
Minor (Must include at least 9 hours of advanced courses)		18
<b>Total Hours</b>		<b>120</b>

<sup>1</sup> MATH 1342 satisfies the Core Curriculum requirement for Component Area II (Mathematics).

<sup>2</sup> GEOG 1401 satisfies four credit hours of the Core Curriculum requirement for Component Area III (Life and Physical Science) OR the Degree Specific requirement for Life and Physical Science. Students who choose to apply this course towards the Geography major may also need to complete additional coursework in order to fulfill the 120 credit hour requirement.

<sup>3</sup> GEOG 2355 and/or GEOG 2356 satisfy the Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture). Students who choose to apply either of these course towards the Geography major may need to complete additional coursework in order to fulfill the 120 credit hour requirement for graduation.

<sup>4</sup> GEOG 1300 satisfies the Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences). Students who choose to apply this course towards the Geography major may also need to complete additional coursework in order to fulfill the 120 credit hour requirement.

<sup>5</sup> Introductory Geography Courses: GEOG 1300 also satisfies the Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences) while GEOG 2355 and GEOG 2356 satisfy the Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture). Students who choose to also apply these courses towards the Geography major may need to complete additional coursework in order to fulfill the 120 credit hour requirement for graduation.

<sup>6</sup> Introductory Physical Geography Courses: GEOL 1403 and GEOL 1405 also satisfy the Core Curriculum requirement for Component Area III (Life and Physical Science). Students who choose to also apply these courses towards the Geography major may need to complete additional coursework in order to fulfill the 120 credit hour requirement for graduation.

<sup>7</sup> GEOG Advanced Electives should be used to meet the 120 SCH and 42 advanced hour requirements.

<sup>8</sup> The following minor cannot be paired with this degree program: Minor in Geo-spatial Science.

## 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.

## First Year

Fall	Hours	Spring	Hours
Component Area II ( <a href="https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaii">https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaii</a> )		3 ENGL 1302 <sup>1</sup>	3
Component Area IX ( <a href="https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix">https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix</a> )		4 GEOG 1300, 2355, or 2356 <sup>3</sup>	3
ENGL 1301 <sup>1</sup>		3 HSTY 1301 <sup>4</sup>	3
GEOG 1401 <sup>2</sup>		4 MATH 1342, STAT 3379, or GEOG 4374 <sup>5</sup>	3
		POLS 2305 <sup>6</sup>	3
		<b>14</b>	<b>15</b>

## Second Year

Fall	Hours	Spring	Hours
Component Area III ( <a href="https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii">https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii</a> )		4 Component Area III ( <a href="https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii">https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii</a> )	4

GEOG 2341, 3320, GEOL 1403, or GEOL 1405 <sup>7</sup>	3 Component Area V ( <a href="https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav">https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav</a> )	3
GEOG 2464	4 GEOG 4361	3
HSTY 1302 <sup>4</sup>	3 GEOG 4365	3
POLS 2306 <sup>6</sup>	3 Minor <sup>8</sup>	3
<b>17</b>		<b>16</b>

**Third Year**

Fall	Hours	Spring	Hours
Component Area IV ( <a href="https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav">https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav</a> )		3 GEOG 3301	3
GEOG 3350		3 GEOG 3363	3
GEOG 4367		3 Life and Physical Sciences <sup>9</sup>	4
Life and Physical Sciences <sup>9</sup>		4 Minor/Minor Advanced <sup>8</sup>	6
Minor <sup>8</sup>		3	
<b>16</b>			<b>16</b>

**Fourth Year**

Fall	Hours	Spring	Hours
Component Area VIII ( <a href="https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii">https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii</a> )		3 GEOG Advanced Electives <sup>11</sup>	4
GEOG Applied Cognate <sup>10</sup>		3 GEOG Applied Cognate <sup>10</sup>	6
GEOG 4468		4 Minor Advanced <sup>8</sup>	3
Minor Advanced <sup>8</sup>		3	
<b>13</b>			<b>13</b>

**Total Hours: 120**

- <sup>1</sup> Satisfies the Core Curriculum requirement for Component Area I (Communication).
- <sup>2</sup> Satisfies four hours of the Core Curriculum requirement for Component Area III (Life and Physical Science).
- <sup>3</sup> Introductory Geography Courses: GEOG 1300 also satisfies the Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences) while GEOG 2355 and GEOG 2356 satisfy the Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture). Students who choose to also apply these courses towards the Geography major may need to complete additional coursework in order to fulfill the 120 credit hour requirement for graduation.
- <sup>4</sup> Satisfies the Core Curriculum requirement for Component Area VI (U.S. History).
- <sup>5</sup> MATH 1342 satisfies the Core Curriculum requirement for Component Area II (Mathematics).
- <sup>6</sup> Satisfies the Core Curriculum requirement for Component Area VII (Political Science/Government).
- <sup>7</sup> Introductory Physical Geography Courses: GEOL 1403 and GEOL 1405 also satisfy the Core Curriculum requirement for Component Area III (Life and Physical Science). Students who choose to also apply these courses towards the Geography major may need to complete additional coursework in order to fulfill the 120 credit hour requirement for graduation.
- <sup>8</sup> The following minor cannot be paired with this degree program: Minor in Geo-spatial Sciences.
- <sup>9</sup> Life and Physical Sciences course beyond Core.
- <sup>10</sup> See Geography Applied Cognate course listing below.
- <sup>11</sup> GEOG Advanced Electives should be used to meet the 120 SCH and 42 advanced hours.

Code	Title	Hours
<b>Geography Applied Cognate<sup>10</sup></b>		
Choose three from the following:		
GEOG 3310	Sustainable Development	3
GEOG 3352	Tourism Geography	3
GEOG 4100	Earth and Environment Seminar	1
GEOG 4330	Hydrology and Water Resources	3
GEOG 4331	Conservation of Natural Resources	3

GEOG 4333	Field Studies	3
GEOG 4351	Economic Geography	3
GEOG 4356	Urban Geography	3
GEOG 4357	Population Geography	3
GEOG 4359	Transportation Geography	3
GEOG 4432	Geomorphology	4

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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 Geography, Geo-spatial Information Sciences is designed to provide graduates with the following marketable skills:

- GIS programming.
- Ability to understand, identify, and synthesize environmental and population data and produce it into map form.
- GIS and map design and analysis.
- Ability to produce and interpret remotely sensed data.
- Technical writing and statistical analysis.