

BACHELOR OF SCIENCE (B.S.) MAJOR IN GEOGRAPHIC INFORMATION SCIENCE

**Minimum required: 120
semester credit hours**

General Requirements

- The general education core curriculum courses are listed in the degree plan below along with the statewide component code number. See the General Education Core Curriculum (<http://mycatalog.txstate.edu/undergraduate/general-education-core-curriculum>) section of this catalog for the Texas State requirements and options in the core curriculum, including Honors courses.
- This major requires students to select a minor area of study from the approved list of Undergraduate Minors (<http://www.mycatalog.txstate.edu/undergraduate/minors>) offered at Texas State. Various minors may be appropriate depending upon your interests and career goals. Discuss other possible options with your academic advisor.
- This major requires a minimum of 36 semester credit hours of Geography courses.
- To satisfy graduation requirements, students must have at least a 2.50 major GPA for Geography and at least a 2.25 TXST GPA. Students must make a grade of "C" or better in all Geography courses that are to be counted for credit toward their major.
- Required major courses include the following:

Code	Title	Hours
GEO 1309	Introduction to Cultural Geography	3
or GEO 1310	World Geography	
GEO 2410	Introduction to Physical Geography	4
GEO 2426	Fundamentals of Geographic Information Systems	4
GEO 3301	Research Methods in Geography	3

- Required Geography core courses include the following:
- | Code | Title | Hours |
|----------|------------------------------|-------|
| GEO 3411 | Maps and Mapmaking | 4 |
| GEO 3416 | Principles of Remote Sensing | 4 |
| GEO 3426 | Advanced GIS | 4 |
- Required Geography capstone includes at least one course from (4-10 hours) from the following:

Code	Title	Hours
GEO 4411	Advanced Cartographic Design	4
GEO 4412	Digital Remote Sensing	4
GEO 4422	Web Mapping	4
GEO 4424	GPS and GIS	4
GEO 4427	GIS Design and Implementation	4

- Geography electives to bring the required Geography hours to 36 should be selected in consultation with an advisor from the following courses:

Code	Title	Hours
GEO 1305	Meteorology	3
GEO 1309	Introduction to Cultural Geography	3
GEO 1310	World Geography	3
GEO 2310	Introduction to Environmental Geography	3
GEO 2420	Introduction to Geographic Information Techniques	4
GEO 2427	Management and Implementation of GIS	4
Any 3000/4000 level course		

- Majors must complete a minimum of 36 advanced hours (3000 or 4000 level courses).
- The minimum number of hours required for this degree program is 120. The number of free elective hours a student will complete depends on the number of hours a student may need to achieve the required 120 total or 36 advanced hours.
- Nine semester credit hours must be writing intensive (WI).

Course Requirements

		Freshman	
	First Semester Hours		Second Semester Hours
ENG 1310 (Communication Component Code 010)	3	HIST 1310 (American History Component Code 060)	3
US 1100	1	ENG 1320 (Communication Component Code 010)	3
POSI 2310 (Government/Political Science Component Code 070)	3	Life & Physical Sciences Component Code 030	3
Life & Physical Sciences Component Code 030	3	GEO 2410	4
GEO 1309 or 1310	3		
Mathematics Component Code 020	3		
	16		13

		Sophomore	
	First Semester Hours		Second Semester Hours
COMM 1310 (Component Area Option Code 090/091)	3	POSI 2320 (Government/Political Science Component Code 070)	3
ENG Literature (Component Area Option Code 090/094)	3	ENG Literature Select one of the following:	3
Modern Language 1410 (if required), or elective	4	ENG 2310	
HIST 1320 (American History Component Code 060)	3	ENG 2320	
GEO 3301	3	ENG 2330	
		ENG 2340	
		ENG 2359	
		ENG 2360	
		Modern Language 1420 (if required, or elective)	4

	PHIL 1305 or 1320 (Language, Philosophy & Culture Component Code 040)	3
	GEO Advanced Required/ Elective	3
	16	16
Junior		
	First Semester Hours	Second Semester Hours
ART 2313, DAN 2313, MU 2313, or TH 2313 (Creative Arts Component Code 050)	3 Minor	6
Social & Behavioral Sciences Component Code 080	3 Elective (as needed)	3
GEO Advanced Required/ Electives	7 GEO Advanced Required/ Electives	7
Choose one of the following:	3	
CS 1308		
CIS 1323		
MATH 1317		
MATH 2321		
MATH 2417		
	16	16
Senior		
	First Semester Hours	Second Semester Hours
Minor	6 Minor	6
Electives (as needed)	3 Elective (as needed)	3
GEO Advanced Required/ Electives	6 GEO Advanced Required/ Elective	3
	15	12

Total Hours: 120