

# GEOGRAPHIC INFORMATION SCIENCE AND TECHNOLOGY - BS

## Program Requirements

### First Year

Fall		Semester Credit Hours
GEOG 203 & GEOG 213	Planet Earth and Planet Earth Lab	4
GEOG 215	Geospatial Cornerstone	1
MATH 140	Mathematics for Business and Social Sciences	3
Life and physical sciences <sup>1</sup>		4
Select from the following:		
ATMO 201 & ATMO 202	Weather and Climate and Weather and Climate Laboratory	
BIOL 101	Botany	
BIOL 111	Introductory Biology I	
CHEM 119	Fundamentals of Chemistry I	
GEOL 101 & GEOL 102	Principles of Geology and Principles of Geology Laboratory	
PHYS 201	College Physics	
Communication ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication</a> )		3
<b>Semester Credit Hours</b>		<b>15</b>
Spring		
GEOG 201	Introduction to Human Geography	3
MATH 142	Business Calculus	3
POLS 206	American National Government	3
Life and physical sciences <sup>1</sup>		4
Select from the following:		
BIOL 107	Zoology	
BIOL 112	Introductory Biology II	
CHEM 120	Fundamentals of Chemistry II	
GEOL 106	Historical Geology	
PHYS 202	College Physics	
OCNG 251 & OCNG 252	Oceanography and Oceanography Laboratory	
Communication ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication</a> )		3
<b>Semester Credit Hours</b>		<b>16</b>

### Second Year

Fall		
GEOG 232	Cartography and Visualization	3
CSCE 110 or CSCE 111	Programming I or Introduction to Computer Science Concepts and Programming	4
POLS 207	State and Local Government	3

American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )	3
Social and behavioral sciences ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences</a> )	3

Semester Credit Hours		16
Spring		
GEOG 352/ GEOL 352	GNSS in the Geosciences	3
STAT 303	Statistical Methods	3
American history ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a> )		3
Language, philosophy and culture ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture</a> )		3
Human or physical geography elective <sup>2</sup>		3

Semester Credit Hours		15
Third Year		
Fall		
GEOG 361	Remote Sensing in Geosciences	4
GEOG 390	Principles of Geographic Information Systems	4
Creative arts ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts</a> )		3
General elective <sup>3</sup>		3

Semester Credit Hours		14
Spring		
GEOG 312	Data Analysis in Geography	3
GIST techniques elective <sup>4</sup>		4
General electives <sup>3</sup>		8

Semester Credit Hours		15
Fourth Year		
Fall		
GEOG 450	Field Geography	3
GIST techniques elective <sup>4</sup>		4
General electives <sup>3</sup>		7

Semester Credit Hours		14
Spring		
GEOG 476	GIS Practicum	3
Advanced GIST elective <sup>5</sup>		4
General electives <sup>3</sup>		8

Semester Credit Hours		15
<b>Semester Credit Hours</b>		<b>15</b>

Total Semester Credit Hours		120
<b>Total Semester Credit Hours</b>		<b>120</b>

<sup>1</sup> 8 hours required. Department requires that you take two in the same discipline to meet this requirement.

<sup>2</sup> Select from GEOG 301, GEOG 304, GEOG 305, GEOG 306, GEOG 309, GEOG 311, GEOG 320, GEOG 323, GEOG 324, GEOG 325, GEOG 327, GEOG 330, GEOG 331, GEOG 335, GEOG 355, GEOG 360, GEOG 370/ MARS 370, GEOG 380, GEOG 400, GEOG 401, GEOG 404, GEOG 406, GEOG 420, GEOG 430, GEOG 434, GEOG 435, GEOG 440, GEOG 442/ GEOS 442, GEOG 467.

- <sup>3</sup> Select any courses from 100-499 not used elsewhere. (Except AERS 100-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/aers/>); ASCC 100-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/ascc/>); ENGL 103; KINE 198, KINE 199; MATH 102; MATH 142, MATH 150, MATH 151, MATH 168, MATH 171; MLSC 100-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/mlsc/>); NVSC 100-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/nvsc/>); SOMS 100-499 (<http://catalog.tamu.edu/undergraduate/course-descriptions/soms/>); STAT 211, STAT 302, STAT 303).
- <sup>4</sup> Select from GEOG 391, GEOG 392, GEOG 398, GEOG 461, GEOG 475, GEOG 477, GEOG 478, GEOG 479.
- <sup>5</sup> Select from GEOG 461, GEOG 475, GEOG 479. A course used to fulfill this requirement cannot also be counted as fulfilling a GIST techniques elective.

Two courses in the degree plan must be Writing Intensive courses designated by the department in the schedule of classes. Also, 3 hours of International and Cultural Diversity (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) and 3 hours of Cultural Discourse (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/>) must be incorporated into the degree.