# UNIVERSITY STUDIES - BS, GEOGRAPHIC INFORMATION SCIENCE AND TECHNOLOGY CONCENTRATION

## Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 390</td>
<td>Principles of Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 361</td>
<td>Remote Sensing in Geosciences</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 352/GEOL 352</td>
<td>GNSS in the Geosciences</td>
<td>3</td>
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<tr>
<td>GEOG 475</td>
<td>Advanced Topics in GIS (Geographic Information Systems)</td>
<td>4</td>
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</tbody>
</table>

Select from the following: 6-8

- CSCE 111 Introduction to Computer Science Concepts and Programming
- ESSM 459 Programming for Spatial Data Applications
- GEOG 232 Cartography and Visualization
- GEOG 312 Data Analysis in Geography
- GEOG 392 GIS Programming
- GEOG 398 Interpretation of Aerial Photographs
- GEOG 461 Digital Image Processing in the Geosciences
- GEOG 461 Digital Image Processing in the Geosciences
- GEOG 475 Advanced Topics in GIS (Geographic Information Systems)
- GEOG 479 Principles of Geocomputation

## University and College Requirements

- GEO 213 Planet Earth Lab
- MATH 140 Mathematics for Business and Social Sciences
- MATH 142 Business Calculus
- POLS 206 American National Government
- POLS 207 State and Local Government
- Life and Physical Sciences elective

Select one of the following: 1

- ATMO 201 Weather and Climate & ATMO 202:and Weather and Climate & OCNG 251Laboratory & OCNG 252and Oceanography and Oceanography Laboratory
- BIOL 101 Botany & BIOL 107 and Zoology
- BIOL 111 Introductory Biology I & BIOL 112 and Introductory Biology II
- CHEM 119 Fundamentals of Chemistry I & CHEM 120and Fundamentals of Chemistry II

## General Electives

- GEOL 101 Principles of Geology & GEOL 102 and Principles of Geology & GEOL 106Laboratory and Historical Geology
- PHYS 201 College Physics & PHYS 202 and College Physics
- American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) 6
- Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication) 6
- Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) 3
- Cultural discourse (http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/) 2
- International and cultural diversity (http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/) 2
- Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) 3
- Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences) 3

**Minor 1** 15-18

**Minor 2** 15-18

**General electives** 26

**Total Semester Credit Hours** 120

1. Department requires that you take 8 hours of Life & Physical Sciences in the same discipline to meet this requirement.
2. A graduation requirement includes 3 hours of International and Cultural Diversity (http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/) course and 3 hours of Cultural Discourse (http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/). A course satisfying a University Core category, a college/department requirement, or a general elective may be used to satisfy this requirement.