The minor in Geographic Information Science requires 23 semester credit hours. The Geographic Information Science minor is designed for students seeking to enhance their preparation for careers or graduate work utilizing geographic information science and geospatial techniques. Students majoring in Geographic Information Science may not minor in this program. Students majoring in other Geography majors who choose the GIS minor will not be able to count GEO 2426 and GEO 3301 for credit in both the major and the minor. Those courses will count toward the minor; therefore, Geography majors must take approved Geography elective courses to satisfy the minimum credit hour requirements for their major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 2426</td>
<td>Fundamentals of Geographic Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>GEO 3301</td>
<td>Research Methods in Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEO 3411</td>
<td>Maps and Mapmaking</td>
<td>4</td>
</tr>
<tr>
<td>GEO 3416</td>
<td>Remote Sensing and Earth Observation</td>
<td>4</td>
</tr>
</tbody>
</table>

**Prescribed Electives**

Select 2 courses from the following: 8

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 3426</td>
<td>Advanced GIS</td>
</tr>
<tr>
<td>GEO 4411</td>
<td>Advanced Cartographic Design</td>
</tr>
<tr>
<td>GEO 4412</td>
<td>Digital Image Processing and Machine Learning</td>
</tr>
<tr>
<td>GEO 4420</td>
<td>GeoProgramming</td>
</tr>
<tr>
<td>GEO 4422</td>
<td>Web Mapping</td>
</tr>
<tr>
<td>GEO 4424</td>
<td>GPS and GIS</td>
</tr>
<tr>
<td>GEO 4427</td>
<td>GIS Consulting Practicum</td>
</tr>
<tr>
<td>GEO 4351</td>
<td>Geospatial Data Science and Health</td>
</tr>
</tbody>
</table>

**Total Hours** 23