Geographic Information Science, Minor

Geographic information systems (GIS), and the tools and digital spatial data that they contain, help inform major decisions on how natural resources are managed, how smart cities are built, how communities respond to natural disasters, and how the spread of disease is detected. The minor is designed to provide the knowledge and skills needed to work with geographic information and prepare individuals to work in this growing profession. Geography majors are not eligible for the geographic information science minor.

Requirements

The undergraduate minor in geographic information science requires a minimum of 16 s.h. in geographical and sustainability sciences courses, including 12 s.h. in University of Iowa courses numbered 3000 or above. Students must maintain a grade-point average of at least 2.00 in all courses for the minor and in all UI courses for the minor. Coursework in the minor may not be taken pass/nonpass.

Geography majors may not earn the minor in geographic information science.

The minor requires one core course, three mid-level specialization courses, and an advanced course that builds on one of the three mid-level courses. Students may consult with the department's academic advisor for help in selecting the advanced course.

The minor in geographic information science requires the following coursework.

Core Course

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG:2050</td>
<td>Foundations of GIS</td>
<td>4</td>
</tr>
</tbody>
</table>

Mid-Level Specialization Courses

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG:3500/IGPI:3500</td>
<td>Introduction to Environmental Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GEOG:3520/IGPI:3520</td>
<td>GIS for Environmental Studies</td>
<td>3</td>
</tr>
<tr>
<td>GEOG:3540/IGPI:3540</td>
<td>Geographic Visualization</td>
<td>3</td>
</tr>
</tbody>
</table>

Advanced Course

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG:3570</td>
<td>Light Detection and Ranging (LiDAR): Principles and Applications</td>
<td>3</td>
</tr>
<tr>
<td>GEOG:4500/IGPI:4500</td>
<td>Advanced Remote Sensing</td>
<td>4</td>
</tr>
<tr>
<td>GEOG:4520/IGPI:4520</td>
<td>GIS for Environmental Studies: Applications</td>
<td>3</td>
</tr>
<tr>
<td>GEOG:4580/IGPI:4581</td>
<td>Introduction to Geographic Databases</td>
<td>3</td>
</tr>
</tbody>
</table>

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Geographic Information Science, Minor

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG:2050</td>
<td>Foundations of GIS</td>
<td>4</td>
</tr>
</tbody>
</table>

First Year

Spring

GEOG:2050 | Foundations of GIS | 4

Second Year

Fall

GEOG:3500 | Introduction to Environmental Remote Sensing | 3

Spring

GEOG:3540 | Geographic Visualization | 3

Third Year

Spring

GEOG:3520 | GIS for Environmental Studies | 3

Fourth Year

Fall

Minor: advanced course a | 3

Total Hours | 16

a See General Catalog for list of approved courses.