Geographic Information Science, Minor

Geographic information science is the study of geography using digital technology. The field uses geographic information systems (computer-based technologies designed to facilitate the capture, organization, analysis, and display of geographic data), remote sensing (primarily interpretation of satellite imagery), and spatial modeling (viewing, analyzing, and mapping spatial data) to study geographic patterns and processes and to examine research on the nature, development, and use of these tools.

Requirements

The undergraduate minor in geographic information science requires a minimum of 15 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 g.p.a. 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>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>GEOG:1050</td>
<td>Foundations of GIS</td>
<td>4</td>
</tr>
<tr>
<td>GEOG:3010/IGPI:3010</td>
<td>Geographic Information Systems and Science</td>
<td>3</td>
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</table>

Mid-Level Specialization Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<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>
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</tbody>
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Advanced Course

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<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>GEOG:3570</td>
<td>Light Detection and Ranging (LIDAR): Principles and Applications</td>
<td>3</td>
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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.

Academic Plans

First Year

Spring

GEOG:3010 or GEOG:1050 and Science

Hours 3-4

Second Year

Fall

GEOG:3520

GIS for Environmental Studies

Hours 3

Spring

GEOG:3540

Geographic Visualization

Hours 3

Third Year

Fall

GEOG:3500

Introduction to Environmental Remote Sensing

Hours 3

Fourth Year

Fall

Minor: GIS advanced course

Hours 3

Total Hours 15-16

a Refer to the General Catalog for a list of recommended courses.