Spatial Information Systems (SIS) Individualized Curriculum Program (ICP)

No students are being accepted to program as of spring 2023.

In addition to offering the Geography major, the department coordinates an Individualized Curriculum Program (ICP) in Spatial Information Systems that combines courses in Geography and Computer Science and Information Systems, which leads to a Bachelor of Applied Science degree. A foreign language is not required to complete this degree.

The program is focused on three areas:

- Geography
- Computer Science and Information Systems
- Specialty electives

Required GEOG and CSIS courses are specified on the Curriculum Sheet.

Learning Outcomes

Spatial Information Systems majors, upon fulfilling the requirements of the major will:

- Demonstrate understanding of spatial patterns and processes in the human and physical environments.
- Demonstrate proficiency in one or more applications of geospatial technology – Geographic Information Systems, Global Positioning Systems and/or Remote Sensing.
- Complete a research proposal that requires synthesis relevant literature and development of a viable geographic research project.

Total hours required for the SIS ICP degree is 124 s.h. of which at least 48 s.h. must be at the 3000-level or higher. No minor or foreign language is required for this degree.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>S.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>YSU 1500</td>
<td>Success Seminar</td>
<td>1-2</td>
</tr>
<tr>
<td>or SS 1500</td>
<td>Strong Start Success Seminar</td>
<td></td>
</tr>
<tr>
<td>or HONR 1500</td>
<td>Intro to Honors</td>
<td></td>
</tr>
</tbody>
</table>

General Education Requirements

| ENGL 1550    | Writing 1                                  | 3    |
| ENGL 1551    | Writing 2                                  | 3    |
| CMST 1545    | Communication Foundations                  | 3    |
| Arts and Humanities courses |                             | 6    |
| Natural Science |                                        | 4    |
| GEOG 1503 meets 3 s.h. of Natural Science Requirement | 3    |
| Social Science |                                        | 3    |
| GEOG 2626 or GEOG 2640 meet 3 s.h. of the Social Scuience | 3    |

Required Geography Core Courses

- Physical Geography
- Geography Capstone
- Map Use and Interpretation
- Geospatial Foundations

Required Geospatial Core Courses

- Introduction to Geographic Information Science
- Introduction to Remote Sensing
- Advanced Geographic Information Science
- Development of Databases

Required Complementary Skill Courses

- Survey of Computer Science and Information Systems
- Programming and Problem-Solving
- Visual/Object-Oriented Programming
- Development of Databases

Select at least 6 s.h. from the following CSIS/CSCI Info elective courses:

- Graphic Design
- Computer Vision
- Artificial Intelligence
- Special Topics (with approval of the chairperson)
- Digital Image Processing
- Digital Multimedia Design & Creation

Select at least 6 s.h. from the following GEOG elective courses with approval of the chairperson:

- Geographic Information Systems
- Urban Geography
- Soils and Land Use
- Field Methods in Geography
- Seminar in Geography
- Directed Research in Geography

Electives

Select a minimum of 23 hours of outside electives.

Suggested (but not limited to) Courses

Select an additional 8-10 hours from the following:

- Archaeology (Prerequisite ANTH 1500 or ANTH 1502)
- Archaeological Techniques (Prerequisite ANTH 3702)
- New World Archaeology: Topics (Prerequisite ANTH 3702)
- Advanced Topics in Archaeology (Prerequisite ANTH 3702)
- General Ecology (Prerequisite BIOL 2602)
- (Prerequisite CCT 2602 or DDT 2602)
- (Prerequisite DDT 1503 or DDT 2602)
- Geology of Economic Mineral Deposits (Prerequisite GEOL 1505 or GEOL 2605)
- Geology and the Environment 2 (Prerequisite GEOL 2615 or ENST 2600)

Total Semester Hours: 120-125

1 Courses taken under this section allow the SIS major to choose areas of application appropriate to his/her field of interest. Or it may allow further development of the student in a direction of her/his choice, such as environmental studies, biological sciences, archeology, or drafting and...
design. The choice is left open for the student in consultation and with approval of the faculty members overseeing the ICP. Some suggested elective courses are listed but the student may also select additional courses from the GEOG and computer elective listings above. Be aware that selected courses may require prerequisites (in parentheses).

Summary:
GER hours: 40 s.h.
Total GEOG hours: 30 s.h.
Total CSIS/INFO hours: 20-22 s.h.
Total complementary skill hours: 6 s.h.
Outside elective hours: 18 s.h.
Additional hours: 8-10 s.h.