GEOSPATIAL INFORMATION SCIENCE, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2023-2024. Learn more about University Academic Regulation 3.1 (http://catalog.okstate.edu/university-academic-regulations/#matriculation).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Education Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>English Composition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 1113 or ENGL 1313</td>
<td>Composition I or Critical Analysis and Writing I</td>
<td>3</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 1213 or ENGL 1413</td>
<td>Composition II or Critical Analysis and Writing II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
<td></td>
</tr>
<tr>
<td><strong>American History &amp; Government</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 1103 or HIST 1483 or HIST 1493</td>
<td>Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1113</td>
<td>American Government</td>
<td>3</td>
</tr>
<tr>
<td><strong>Analytical &amp; Quantitative Thought (A)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 2144</td>
<td>Calculus I (A)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Humanities (H)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Courses designated (H)</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td><strong>Natural Sciences (N)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Must include one Laboratory Science (L) course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOG 1114</td>
<td>Introduction to Physical Geography (LN)</td>
<td>4</td>
</tr>
<tr>
<td>2 hours designated (N)</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Social &amp; Behavioral Sciences (S)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course designated (S)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Additional General Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Courses designated (A), (H), (N), or (S)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td><strong>Diversity (D) &amp; International Dimension (I)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May be completed in any part of the degree plan</td>
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<tr>
<td>Select at least one Diversity (D) course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select at least one International Dimension (I) course</td>
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<td></td>
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</tbody>
</table>

| **College/Departmental Requirements**             |                                                |       |
| **First Year Seminar**                           |                                                | 1     |
| (Transfer students with 15 hours exempt)          |                                                |       |
| **Arts & Humanities**                            |                                                | 3     |
| See note 2.a.                                    |                                                |       |
| **Natural & Mathematical Sciences**              |                                                |       |
| CS 1113                                          | Computer Science I (A)                         | 3     |
| Select 6 additional hours                        |                                                | 6     |
| See note 2.b.                                    |                                                |       |
| **Foreign Language**                             |                                                |       |
| See note 3                                       |                                                |       |
| 0-6 hours                                        |                                                |       |

| **Upper-Division General Education**             |                                                |       |
| Select 6 hours outside major department          |                                                |       |
| See note 2.c.                                    |                                                |       |

| **Hours Subtotal**                               |                                                | 13    |

| **Major Requirements**                           |                                                |       |
| Minimum GPA 2.50.                                |                                                |       |
| **Core courses**                                 |                                                |       |
| GEOG 2344                                        | Digital Tools for Environmental Problem-Solving (LN) | 4     |
| GEOG 3333                                        | Spatial Analysis (A)                            | 3     |
| GEOG 4203                                        | Fundamentals of Geographic Information Systems | 3     |
| GEOG 4323                                        | Mapping in Modern Society                       | 3     |
| GEOG 4383                                        | Introduction to GIS Programming                 | 3     |
| GEOG 4943                                        | Geospatial Information Science Internship/Research Capstone | 3     |
| Select three of the following:                   |                                                | 9     |
| GEOG 4263                                        | Geospatial Applications for Unmanned Aerial Systems |       |
| GEOL 4303                                        | Geophysical Field Methods                       |       |
| GEOG 4333                                        | Remote Sensing                                  |       |
| GEOG 4343                                        | Geographic Information Systems: Resource Management Applications |       |
| GEOG 4353                                        | Geographic Information Systems: Socioeconomic Applications |       |
| GEOG 4373                                        | Geographic Information Systems in Public Health |       |
| GEOG 4663                                        | Web GIS: Trends, Principles, and Applications   |       |
| Select one of the following:                     |                                                | 3     |
| CS 2133                                          | Computer Science II                             |       |
| MSIS 2203                                        | Computer Programming for Business               |       |
| MSIS 3103                                        | End User Database Systems Design and Management |       |
| Select one of the following:                     |                                                | 3     |
| STAT 2013                                        | Elementary Statistics (A)                      |       |
| STAT 2023                                        | Elementary Statistics for Business and Economics (A) |       |
| STAT 2053                                        | Elementary Statistics for the Social Sciences (A) |       |
| Select 6 hours upper-division GEOG courses        |                                                | 6     |
| Select 6 hours upper-division (non-GEOG) departmental approved related courses | 6 |
| AVED 4343                                        | Geospatial Technologies for Aerospace Managers  |       |
| CIVE 3614                                        | Engineering Surveying                           |       |
| CIVE 4033                                        | GIS Applications for Water Resources            |       |
| MSIS 3163                                        | Web Design Essentials                           |       |
### Geospatial Information Science, BS

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MSIS 3203</td>
<td>Advanced Computer Programming for Business</td>
</tr>
<tr>
<td>MSIS 4033</td>
<td>Information Systems Project Management and Communication</td>
</tr>
<tr>
<td>MSIS 4273</td>
<td>Legal and Ethical Issues in Information Systems</td>
</tr>
<tr>
<td>MSIS 4623</td>
<td>Data Science Programming</td>
</tr>
<tr>
<td>MSIS 4673</td>
<td>Data Visualization</td>
</tr>
</tbody>
</table>

And others with consent of department

<table>
<thead>
<tr>
<th>Hours Subtotal</th>
<th>46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>21</td>
</tr>
</tbody>
</table>

May need to include 6 hours of a foreign language (see note 3)

<table>
<thead>
<tr>
<th>Hours Subtotal</th>
<th>21</th>
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</table>

Total Hours

| 120 |

1 College and Departmental Requirements that may be used to meet General Education Requirements

### Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum GPA 2.00 in all GEOG courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

### College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing), HIST, MUSI, PHIL (except PHIL 1131 Logic and Critical Thinking, PHIL 3003 Symbolic Logic), and PHIL 4003 Mathematical Logic and Computability, REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOG, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student’s major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student’s degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student’s degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.

3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.).
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.).
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer documentation of meeting the foreign language competency from one of the teacher education programs in the State of Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

### Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2029.