### General Requirements

**Total Credit Hours**: 121
**Minimum Retention/Graduation Grade Point Averages**: 2.25

### University-Wide General Education (minimum 40 hours) and College of Atmospheric and Geographic Sciences Requirements

**Courses graded P/NP will not apply.**

### Core Area I: Symbolic and Oral Communication

- **A. English Composition** (6 hours, 2 courses)
  - 1. English 1113, Principles of English Composition
  - 2. English 1213, Principles of English Composition, or EXPO 1213, Expository Writing

- **B. Foreign Language** (0-10 hours in the same language)
  - Students who have not completed two years of the same foreign language in high school are required to take two college courses in the same foreign language. This additional coursework may add 6-10 hours to the minimum hours required for graduation.
  1. Beginning Course (0-5 hours)
  2. Beginning Course, continued (0-5 hours)

- **C. Mathematics** (3 hours, 1 course). *MATH 1914, Differential & Integral Calculus I

### Core Area II: Natural Science

- **Science with Lab**: *CHEM 1315, General Chemistry
- **Science without Lab**: *PHYS 2514, General Physics for Engr. & Science Majors

### Core Area III: Social Science

- **A. Political Science 1113, American Federal Government**
- **B. **

### Core Area IV: Humanities

- **a. Understanding Artistic Forms** (3 hours, 1 course)
- **b. Western Civilization and Culture** (6 hours, 2 courses)
  1. History 1483, U.S., 1492-1865, or History 1493, U.S., 1865-Present
  2. **** (excluding HIST 1483 and 1493)
- **c. Non-Western Culture** (3 hours, 1 course):

### Core Area V: Senior Capstone Experience

(3 hours, 1 course): _______________

At least three hours of Upper-Division General Education coursework must be completed outside the major.

*College of Atmospheric and Geographic Sciences requirements

### Additional College of Atmospheric and Geographic Sciences Bachelor of Science Requirements:

1. **MATH 1914, Differential & Integral Calculus I**
2. **MATH 2924, Differential & Integral Calculus II**
3. **PHYS 2524, General Physics for Engr. & Science Majors**
4. **MIS 2113, Programming for Meteorology**

**MATH 1823, 2423, and 2433 will also fulfill the college's calculus requirement.**
A minimum of 126 semester hours acceptable toward graduation must be completed.

**UPPER-DIVISION HOURS:** A minimum of 40 upper-division semester hours acceptable toward graduation must be completed. OU courses numbered 3000 or above are upper-division. Transfer work is counted as lower-division or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.

**SENIOR INSTITUTION HOURS:** A minimum of 60 semester hours applied toward graduation must be earned at senior (4-year) institutions.

**RESIDENCY:**
- A minimum of two semesters must be spent in residence in the College of Atmospheric and Geographic Sciences.
- At least 36 of the last 48 hours must be completed in residence at OU.

**INDIVIDUAL STUDIES:** No more than six hours of independent study or directed readings may be applied toward degree requirements.

**GRADE POINT AVERAGES:**
- *Upper-Division courses, and GPA for year college work is accepted only as lower-division credit.*
- Transfer work is counted as lower-division or upper-division credit depending on the level at which it was offered at the institution where it was earned. Two-year college work is accepted only as lower-division credit.

Refer to the OU General Catalog for more complete information.

### Suggested Semester Plan of Study — Bachelor of Science in Geographic Information Science (B452)

This plan shows one possible grouping of courses that would allow students to graduate in four years. Please refer to the front of the degree checksheet for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Geoinformatics Program academic advisers to verify that courses selected each semester fulfill the recommended plan and satisfy university, College of Atmospheric & Geographic Sciences, and Geographic Information Science major requirements.

<table>
<thead>
<tr>
<th>Year</th>
<th>FIRST SEMESTER</th>
<th>Hours</th>
<th>SECOND SEMESTER</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FRESHMAN</strong></td>
<td><strong>PHYS 2514, General Physics for Science &amp; Engr. Majors</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>CHEM 1315, General Chemistry (Core II)</strong>&lt;br&gt;<strong>HIST 483, United States 1492-1865 or 1493, United States 1865-Present (Core IV)</strong>&lt;br&gt;<strong>MATH 1914, Differential &amp; Integral Calculus I (Core I)</strong></td>
<td>15</td>
<td><strong>PHYS 2524, General Physics for Science &amp; Engr. Majors</strong>&lt;br&gt;<strong>ENGL 1213, Principles of English Composition (Core I), or 1213, Expository Writing (Core I)</strong>&lt;br&gt;<strong>EXPO 1213, Expository Writing (Core I)</strong>&lt;br&gt;<strong>MATH 2924, Differential &amp; Integral Calculus II</strong></td>
<td>16</td>
</tr>
<tr>
<td><strong>SOPHOMORE</strong></td>
<td><strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>MATH 1914, Differential &amp; Integral Calculus I (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>PHYS 2514, General Physics for Science &amp; Engr. Majors</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong></td>
<td>16</td>
<td><strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong></td>
<td>16</td>
</tr>
<tr>
<td><strong>JUNIOR</strong></td>
<td><strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong></td>
<td>16</td>
<td><strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>SENIOR</strong></td>
<td><strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong></td>
<td>15</td>
<td><strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong>&lt;br&gt;<strong>ENGL 1113, Principles of English Composition (Core I)</strong></td>
<td>12</td>
</tr>
</tbody>
</table>

**Remote-Sensing (6 hours, 2 courses)**
- GIS 4133, Fund. of Remote Sensing
- GIS 4233, Digital Image Processing
- GIS 4393, Automated Analysis of Spatial Grids
- GIS 4970, Topics (Remote Sensing)

**Statistics (7 hours, 2 courses)**
- GEOG 3924, Quantitative Methods
- GIS 4923, Spatial Statistics

**Computer-Related (6 hours, 2 courses)**
- CS 1313, Programming for Non-Majors
- MIS 2113, Computer-Based Info. Systems
- MIS 3013, Intro, to Programming

**Cognate Courses**
- Twelve hours (12 hours, 4 courses) in the same area, to be chosen from the following:
  - economics, geography, geology, journalism, meteorology, political science, psychology, regional & city planning, sociology, or an adviser-approved area.

**Upper-Division Science Electives**
- A minimum of 15 hours of 3000-4000-level courses in botany, chemistry, computer science, engineer ing, geology, geophysics, mathematics, management information systems, meteorology, microbiology, or physics.