

# 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**

Code	Title	Hours
<b>General Education Requirements</b>		
<i>English Composition</i>		
See Academic Regulation 3.5 ( <a href="http://catalog.okstate.edu/university-academic-regulations/#english-composition">http://catalog.okstate.edu/university-academic-regulations/#english-composition</a> )		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
<i>American History &amp; Government</i>		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
<i>Analytical &amp; Quantitative Thought (A)</i>		
MATH 2144	Calculus I (A) <sup>1</sup>	4
<i>Humanities (H)</i>		
Courses designated (H)		6
<i>Natural Sciences (N)</i>		
Must include one Laboratory Science (L) course		
GEOG 1114	Introduction to Physical Geography (LN) <sup>1</sup>	4
2 hours designated (N)		2
<i>Social &amp; Behavioral Sciences (S)</i>		
Course designated (S)		3
<i>Additional General Education</i>		
Courses designated (A), (H), (N), or (S)		9
<b>Hours Subtotal</b>		<b>40</b>
<b>Diversity (D) &amp; International Dimension (I)</b>		
May be completed in any part of the degree plan		
Select at least one Diversity (D) course		
Select at least one International Dimension (I) course		
<b>College/Departmental Requirements</b>		
<i>First Year Seminar</i>		
(Transfer students with 15 hours exempt)		1
<i>Arts &amp; Humanities</i>		
See note 2.a.		3
<i>Natural &amp; Mathematical Sciences</i>		
CS 1113	Computer Science I (A)	3

Select 6 additional hours		6
See note 2.b.		
<i>Foreign Language</i>		
See note 3		
0-6 hours		
<i>Upper-Division General Education</i>		
Select 6 hours outside major department		
See note 2.c.		
<b>Hours Subtotal</b>		<b>13</b>
<b>Major Requirements</b>		
Minimum GPA 2.50.		
<i>Core courses</i>		
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	

MSIS 3203	Advanced Computer Programming for Business	
MSIS 4033	Information Systems Project Management and Communication	
MSIS 4273	Legal and Ethical Issues in Information Systems	
MSIS 4623	Data Science Programming	
MSIS 4673	Data Visualization	
And others with consent of department		
<b>Hours Subtotal</b>		<b>46</b>
<b>Electives</b>		
Select 21 hours		21
May need to include 6 hours of a foreign language (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 7 additional upper-division hours		
<b>Hours Subtotal</b>		<b>21</b>
<b>Total Hours</b>		<b>120</b>

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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

- 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.
- A&S College/Departmental Requirements**
  - 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 1313 Logic and Critical Thinking (A), PHIL 3003 Symbolic Logic (A) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
  - Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
  - Six upper-division hours are required from General Education or any CAS courses outside the student's major department. 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).
  - 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).

- 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.
- Foreign Language Proficiency**
    - 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.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
    - 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.). Computer Science courses may not be used to satisfy this requirement.
    - 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 of 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.
  - 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.

# Example Plan of Study

## Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
<b>Freshman</b>		
<b>Fall</b>		
MATH 2144	Calculus I (A)	4
GEOG 1114	Introduction to Physical Geography (LN)	4
General Education Courses		6
<b>Hours</b>		<b>14</b>
<b>Spring</b>		
STAT 2013 or STAT 2053	Elementary Statistics (A) or Elementary Statistics for the Social Sciences (A)	3
GEOG 2344	Digital Tools for Environmental Problem-Solving (LN)	4
CS 1113	Computer Science I (A)	3
General Education Courses		6
<b>Hours</b>		<b>16</b>
<b>Sophomore</b>		
<b>Fall</b>		
GEOG 3333	Spatial Analysis (A)	3
College and Elective courses		9
CS 2133	Computer Science II	3
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
GEOG 4203	Fundamentals of Geographic Information Systems	3
Major, College, and Elective courses		12
<b>Hours</b>		<b>15</b>
<b>Junior</b>		
<b>Fall</b>		
GEOG 4333	Remote Sensing	3
GEOG 4383	Introduction to GIS Programming	3
Major, College, and Elective courses		9
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
GEOG 4323	Mapping in Modern Society	3
Major, College, and Elective courses		12
<b>Hours</b>		<b>15</b>
<b>Senior</b>		
<b>Fall</b>		
GEOG 4343	Geographic Information Systems: Resource Management Applications	3
GEOG 4353	Geographic Information Systems: Socioeconomic Applications	3
GEOG 4943	Geospatial Information Science Internship/Research Capstone	3
Major, College, and Elective courses		6
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
Major, College, and Elective courses		15
<b>Hours</b>		<b>15</b>
<b>Total Hours</b>		<b>120</b>