

REQUIREMENTS FOR THE BACHELOR OF SCIENCE
COLLEGE OF ATMOSPHERIC AND GEOGRAPHIC SCIENCES
THE UNIVERSITY OF OKLAHOMA

Academic Year
For Students Entering the Oklahoma State System for Higher Education Summer 2024 through Spring 2025

General Requirements	
Minimum Total Credit Hours	121
Minimum Upper-Division Hours	40
Minimum Retention/Graduation Grade Point Averages:	
Overall - Combined and OU	2.25
Major - Combined and OU	2.25

Program
Geographic Information Science
B452
Bachelor of Science

OU encourages students to complete at least 31 hours of applicable coursework each year to have the opportunity to graduate in 4 years.

GENERAL EDUCATION AND COLLEGE REQUIREMENTS

Courses for fulfillment of General Education and college requirements must be from the approved General Education course list at <http://www.ou.edu/content/gened/courses.html>. **Courses graded P/NP will not apply**

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

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

Code	Title	Credit Hours
Core Area I: Symbolic and Oral Communication		
<i>English Composition (6 hours)</i>		
ENGL 1113	Principles of English Composition	3
ENGL 1213	Principles of English Composition	3
or EXPO 1213	Expository Writing	
<i>Language (0-10 hours)</i>		
(0-10 hours in the same language) Students who have not completed two years of the same language in high school are required to take two college courses in the same language		
Beginning Course		0-5
Beginning Course, continued		0-5
<i>Mathematics (minimum 3 hours)</i>		
MATH 1743	Calculus I for Business, Life and Social Sciences ^{1,2}	3
or MATH 1823	Calculus and Analytic Geometry I	
Core Area II: Natural Science (minimum 7 hours)		
CHEM 1315	General Chemistry (Science with Lab) ¹	5
PHYS 2414	General Physics for Life Science Oriented Majors ¹	4
or PHYS 2514	General Physics for Engineering and Science Majors	
Core Area III: Social Science (6 hours)		
P SC 1113	American Federal Government	3
Choose one course from the General Education Social Science list		3
Core Area IV: Arts and Humanities		
<i>Artistic Forms (3 hours)</i>		
Choose one course from the General Education Artistic Forms list		3
<i>Western Culture (6 hours)</i>		
HIST 1483	United States to 1865	3
or HIST 1493	United States, 1865 to the Present	
Choose one course from the General Education Western Culture list (excluding HIST 1483 & HIST 1493)		3
<i>World Culture (3 hours)</i>		
Choose one course from the General Education World Culture list		3
Core Area V: First Year Experience (3 hours)		
Choose one course		3
Total Credit Hours		39-49

- College of Atmospheric and Geographic Sciences requirements.
- MATH 1914 will also fulfill the College's calculus requirement.

ADDITIONAL COLLEGE BACHELOR OF SCIENCE REQUIREMENTS

Code	Title	Credit Hours
PHYS 2424	General Physics for Life Science Oriented Majors	4
or PHYS 2524	General Physics for Engineering and Science Majors	
Total Credit Hours		4

FREE ELECTIVES

Electives to bring total applicable hours to 121 including 40 upper-division hours.

MAJOR REQUIREMENTS

- Courses required for the major may also fulfill University-Wide General Education Requirements.

Code	Title	Credit Hours
Core		
GIS 2023	Introduction to Spatial Thinking and Computer Mapping	3
GEOG 3773	Geography of the United States	3
GIS 4013	Fundamentals of Geographic Information Systems	3
GIS 4253	GIS Applications	3
GIS 4453	Advanced GIS and Spatial Analysis	3
GIS 4653	Spatial Programming and GIS	3
GEOG 4893	Research and Professional Development	3
GEOG 4953	Capstone	3
Remote Sensing		
Choose 6 hours (2 courses) from the following:		6
GIS 4133	Fundamentals of Remote Sensing	
GIS 4233	Digital Image Processing	
GIS 4970	Special Topics/Seminar (Remote Sensing)	
Statistics		
GEOG 3924		4
GIS 4923	Spatial Statistics	3
Computer Related		
Choose 3 hours from the following:		3
C S 1213	Programming for Non-Majors with Python	
C S 1313	Programming for Non-Majors with C	
METR 1313	Introduction to Programming for Meteorology	
MIS 2113	Computer-Based Information Systems	
MIS 3013	Introduction to Programming	
Total Credit Hours		40

MAJOR SUPPORT REQUIREMENTS

- Courses required for major support may *not* also fulfill University-Wide General Education Requirements.

Code	Title	Credit Hours
Cognate		
Choose four courses in the same area, to be chosen from the following: economics, geography, geology, journalism, meteorology, political science, psychology, regional & city planning, sociology, or another advisor-approved area		12
Upper-Division Science Electives		
Choose a minimum of 15 hours of 3000-4000- level courses in botany, chemistry, computer science, engineering, geology, geophysics, mathematics, management information systems, meteorology, microbiology or physics		15
Total Credit Hours		27

More information in the catalog: (<http://ou-public.courseleaf.com/atmospheric-geographic-sciences/geography-environmental-sustainability/geographic-information-science-bachelor-science/>).

INFORMATION CONCERNING GENERAL RULES, REGULATIONS AND MINIMUM REQUIREMENTS FOR UNDERGRADUATE DEGREES

Total Hours: A minimum of 120 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: Students must earn a minimum overall 2.25 for each of the following: Combined Retention GPA (all college grades), OU Retention GPA, GPA for all major courses, and GPA for all major courses taken at OU.

SUGGESTED SEMESTER PLAN OF STUDY

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 checklist for official requirements. Students must consult with College of Atmospheric and Geographic Sciences and/or Geoinformatics Program academic advisors 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.

Year	FIRST SEMESTER		Hours	SECOND SEMESTER		Hours
FRESHMAN	ENGL 1113	Principles of English Composition (Core I)	3	ENGL 1213 or EXPO 1213	Principles of English Composition (Core I) or Expository Writing	3
	CHEM 1315	General Chemistry (Core II)	5	P SC 1113	American Federal Government (Core III)	3
	HIST 1483 or HIST 1493	United States to 1865 (Core IV) or United States, 1865 to the Present	3		First Year Experience (Core V)	3
	MATH 1823 or MATH 1743	Calculus and Analytic Geometry I or Calculus I for Business, Life and Social Sciences	3		Free Elective, lower- or upper-division	3
		Free Elective, lower- or upper-division	1		Free Elective, lower- or upper-division	4
	CREDIT HOURS		15	CREDIT HOURS		16
SOPHOMORE	PHYS 2414 or PHYS 2514	General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors	4	PHYS 2424 or PHYS 2524	General Physics for Life Science Oriented Majors or General Physics for Engineering and Science Majors	4
	GIS 2023	Introduction to Spatial Thinking and Computer Mapping	3	GEOG 3773	Geography of the United States	3
		Social Science (Core III) ¹	3		Cognate Course ²	3
		Artistic Forms (Core IV) ¹	3		Computer Related Course	3
		Free Elective, lower- or upper-division	3		Western Culture (Core IV) ¹	3
	CREDIT HOURS		16	CREDIT HOURS		16
JUNIOR	GEOG 3924		4	GIS 4253	GIS Applications	3
	GIS 4013	Fundamentals of Geographic Information Systems	3		Remote-Sensing Course Requirement	3
		Remote-Sensing Course Requirement	3		Cognate Course ²	3
		Cognate Course ²	3		Upper Division Science Elective ³	3
		Upper Division Science Elective ³	3		World Culture (Core IV) ¹	3
	CREDIT HOURS		16	CREDIT HOURS		15
SENIOR	GIS 4653	Spatial Programming and GIS	3	GEOG 4953	Capstone	3
	GIS 4923	Spatial Statistics	3	GIS 4453	Advanced GIS and Spatial Analysis	3
	GEOG 4893	Research and Professional Development	3		Upper Division Science Elective ³	3
		Cognate Course ²	3		Upper Division Science Elective ³	3
		Upper Division Science Elective ³	3			
	CREDIT HOURS		15	CREDIT HOURS		12

¹ To be chosen from the University-Wide General Education Approved Course List. Three hours of general education must be upper-division outside the major.

² Choose four courses in the same area, to be chosen from the following: economics, geography, geology, journalism, meteorology, political science, psychology, regional & city planning, sociology, or another advisor-approved area.

³ Choose a minimum of 15 hours of 3000-4000- level courses in botany, chemistry, computer science, engineering, geology, geophysics, mathematics, management information systems, meteorology, microbiology or physics.