

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

For Students Entering the Oklahoma State System for Higher Education:

Summer 2015 through Spring 2016

GENERAL REQUIREMENTS

Total Credit Hours	124
Total Upper-Division Credit Hours	40
Minimum Retention/Graduation Grade Point Averages:	
Minimum in OU Coursework	2.25
Minimum in Major Coursework – Combined and OU	2.25
Overall – Combined and OU	2.25

Geographic Information Science

B452

Bachelor of Science in Geographic Information Science

OU encourages students to complete at least 30 hours of applicable coursework each year to have the opportunity to graduate in four years.

GENERAL EDUCATION AND COLLEGE REQUIREMENTS
Courses graded P/NP will not apply.

Courses for fulfillment of General Education and College of Atmospheric & Geographic Sciences requirements must be from the approved General Education course list at <http://www.ou.edu/content/gened/courses.html>.

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 (9-19 hours, 3-5 courses)

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 (7 hours, 2 courses) including one laboratory component.

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

Core Area III: Social Science (6 hours, 2 courses)

1. Political Science 1113, American Federal Government
2. _____

Core Area IV: Humanities (12 hours, 4 courses)

- 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. C S 1313, Programming for Non-Majors, or METR 1313, Programming for Meteorology

MATH 1823, 2423, and 2433 will also fulfill the College's calculus requirement.

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

MAJOR REQUIREMENTS	MAJOR SUPPORT REQUIREMENTS
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CORE (27 hours, 9 courses)	Cognate
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GIS 2013, Geospatial Tech. & Society 3 GIS 2023, Intro. to Spatial Thinking 3 GEOG 3773, Geography of the U.S. 3 GIS 4013, Fundamentals of GIS 3 GIS 4253, GIS Applications 3 GIS 4453, Adv. GIS and Spatial Analysis 3 GIS 4653, Spatial Programming 3 GEOG 4893, Research Methods and Professional Development 3 GIS 4953, Geoinformatics Capstone Seminar 3	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 another adviser-approved area.
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Remote Sensing (6 hours, 2 courses)	
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GIS 4133, Fund. of Remote Sensing GIS 4233, Digital Image Processing GIS 4393, Automated Analysis of Spatial Grids GIS 4970, Topics (Remote Sensing)	_____ 3 _____ 3 _____ 3
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Statistics (7 hours, 2 courses)	
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GEOG 3924, Quantitative Methods GIS 4923, Spatial Statistics	_____ 3 _____ 3
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Computer-Related (6 hours, 2 courses)	
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C S 1323, Intro. to Computer Prog. MIS 2113, Computer-Based Info. Sys. MIS 3013, Intro. to Programming	_____ 3 _____ 3 _____ 3
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	Free Electives
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Electives to bring total applicable hours to 124 including 40 upper-division hours.

INFORMATION CONCERNING GENERAL RULES, REGULATIONS AND MINIMUM REQUIREMENTS

TOTAL HOURS: 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.

GRADEPOINT 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.

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.

Year	FIRST SEMESTER	Hours	SECOND SEMESTER	Hours
FRESHMAN	ENGL 1113, Principles of English Composition (Core I)	3	ENGL 1213, Principles of English Composition (Core I), or	3
	CHEM 1315, General Chemistry (Core II)	5	EXPO 1213, Expository Writing (Core I)	4
	HIST 1483, United States 1492-1865, or	3	MATH 2924, Differential & Integral Calculus II	3
	1493, United States 1865-Present (Core IV)	4	C S 1313, Programming for Non-Majors, or	3
	MATH 1914, Differential & Integral Calculus I (Core I)	4	METR 1313, Programming for Meteorology	3
			P SC 1113, American Federal Government (Core III)	3
			Cognate Course	3
	TOTAL CREDIT HOURS	15	TOTAL CREDIT HOURS	16
SOPHOMORE	PHYS 2514, General Physics for Science & Engr. Majors	4	PHYS 2524, General Physics for Science & Engr. Majors	4
	Social Science (Core III)	3	Western Civilization & Culture (Core IV)	3
	Understanding Artistic Forms (Core IV)	3	GIS 2023, Intro. to Spatial Thinking	3
	GIS 2013, Geospatial Technologies & Society	3	Cognate Course	3
	Free Elective	3	Free Elective	2
	TOTAL CREDIT HOURS	16	TOTAL CREDIT HOURS	15
JUNIOR	GEOG 3773, Geography of the U.S.	3	GIS 4253, GIS Applications	3
	GIS 3924, Quantitative Methods	4	Remote-Sensing Course Requirement	3
	GIS 4013, Fundamentals of GIS	3	Computer-Related Course Requirement	3
	Remote-Sensing Course Requirement	3	Upper-Division Science Elective	3
	Computer-Related Course Requirement	3	Non-Western Culture (Core IV)	3
	Upper-Division Science elective	3		
	TOTAL CREDIT HOURS	19	TOTAL CREDIT HOURS	15
SENIOR	GIS 4453, Adv. GIS and Spatial Analysis	3	GIS 4953, Capstone	3
	GIS 4653, Spatial Programming	3	Upper-Division Science Elective	3
	GIS 4923, Spatial Statistics	3	Upper-Division Science Elective	3
	GEOG 4893, Research Methods	3	Cognate Course	3
	Upper-Division Science Elective	3	Cognate Course	3
	TOTAL CREDIT HOURS	15	TOTAL CREDIT HOURS	15

Bachelor's degrees require a minimum of 48 hours of upper-division (3000-4000) coursework.

This plan of study should not be used in lieu of academic advisement.

Remote-Sensing (6 hours, 2 courses)	Statistics (7 hours, 2 courses)	Computer-Related (6 hours, 2 courses)	
GIS 4133, Fund. of Remote Sensing	GEOG 3924, Quantitative Methods	C S 1323, Intro. to Computer Programming	
GIS 4233, Digital Image Processing	GIS 4923, Spatial Statistics	MIS 2113, Computer-Based Info. Systems	
GIS 4393, Automated Analysis of Spatial Grids		MIS 3013, Intro. to Programming	
GIS 4970, Topics (Remote Sensing)			
Cognate Courses		Upper-Division Science Electives	
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.		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.	
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