

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 2012 through Spring 2013

GENERAL REQUIREMENTS

| | |
|---|------------|
| Total Credit Hours | 124 |
| Total Upper-Division Credit Hours | 48 |
| Minimum Retention/Graduation Grade Point Averages: | |
| Minimum in OU Coursework | 2.00 |
| Minimum in Major Coursework – Combined and OU | 2.00 |
| Overall – Combined and OU | 2.00 |

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 required for the major or major support may not also fulfill University-Wide General Education Requirements | |
|---|--|---|---|
| UNIVERSITY-WIDE GENERAL EDUCATION (minimum 40 hours) and College of Atmospheric and Geographic Sciences Requirements Courses graded P/NP will not apply | | MAJOR REQUIREMENTS | MAJOR SUPPORT REQUIREMENTS |
| <p>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/enrollment/home/classes_offered/general_education.html.</p> <p>University-Wide General Education (minimum 40 hours) and College of Atmospheric and Geographic Sciences Requirements Courses graded P/NP will not apply</p> <p>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</p> <p>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. 1. Beginning Course (0-5 hours) _____ 2. Beginning Course, continued (0-5 hours) _____</p> <p>C. Mathematics (3 hours, 1 course). *MATH 1823, Calculus & Analytic Geometry I</p> <p>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</p> <p>Core Area III: Social Science (6 hours, 2 courses) 1. Political Science 1113, American Federal Government 2. _____</p> <p>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): _____</p> <p>Core Area V: Senior Capstone Experience (3 hours, 1 course): _____</p> <p>At least three hours of Upper-Division General Education coursework must be completed outside the major.</p> <p>* College of Atmospheric and Geographic Sciences requirements</p> | | <p>CORE (24 hours, 8 courses)</p> <p>GIS 2013, Intro. to Geoinformatics 3 GIS 2023, Spatial Thinking and GIS Visualization 3 GIS 3023, Research Methods for Geoinformatics 3 GIS 4013, GIS Principles & Applications 3 GIS 4200, GIS Internship 3 GIS 4453, GIS and Spatial Analysis 3 GIS 4653, Spatial Programming 3 GIS 4953, GIS Capstone 3</p> <p>Remote Sensing (6 hours, 2 courses)</p> <p>GEOG 4133, Fund. of Remote Sensing GEOG 4233, Digital Image Processing GIS 4393, Automated Analysis of Spatial Grids GIS 4970, Topics (Remote Sensing) _____ 3</p> <p>Statistics (3 hours, 1 course)</p> <p>ANTH 4713, Stat. Concepts in Anth. ECON 2843, Elements of Statistics ECON 4223, Econometric Analysis ECON 4233, Intro. to Applied Econometrics GIS 3923, Intro. Statistics for Geoinformatics MATH 4753, Applied Stat. Methods METR 4313, Statistical Meteorology P SC/SOC 3123, Social Statistics PSY 2003, Understanding Statistics PSY 2113, Research Methods I: Stats. _____ 3</p> <p>Computer-Related (6 hours, 2 courses)</p> <p>C S 1323, Intro. to Computer Prog. MIS 2113, Computer-Based Info. Sys. MIS 3013, Intro. to Programming _____ 3 _____ 3</p> | <p>Cognate</p> <p>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. _____ 3 _____ 3 _____ 3 _____ 3</p> <p>Upper-Division Science Electives</p> <p>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. _____ 3 _____ 3 _____ 3 _____ 3</p> <p align="center">Free Electives</p> <p>Electives to bring total applicable hours to 124 including 48 upper-division hours.</p> |
| <p align="center">Additional College of Atmospheric and Geographic Sciences Bachelor of Science Requirements:</p> <p>1. MATH 2423, Calculus & Analytic Geometry II (carries General Educ. credit) 2. MATH 2433, Calculus & Analytic Geometry III 3. MATH 2443, Calculus & Analytic Geometry IV 4. PHYS 2524, General Physics for Engr. & Science Majors 5. C S 1313, Programming for Non-Majors</p> <p>MATH 1914, 2924, and 2934 will also fulfill the College's calculus requirement.</p> | | | |

INFORMATION CONCERNING GENERAL RULES, REGULATIONS AND MINIMUM REQUIREMENTS

TOTAL HOURS: A minimum of 124 semester hours acceptable toward graduation must be completed.

UPPER-DIVISION HOURS: A minimum of 48 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 2.00 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) | 3 |
| | HIST 1483, United States 1492-1865, or | 3 | MATH 2423, Calculus & Analytic Geometry II | 3 |
| | 1493, United States 1865-Present (Core IV) | 3 | C S 1313, Programming for Non-Majors | 3 |
| | MATH 1823, Calculus & Analytic Geometry I (Core I) | 3 | P SC 1113, American Federal Government (Core III) | 3 |
| | Free Elective | 2 | Cognate Course | 3 |
| | TOTAL CREDIT HOURS | 16 | TOTAL CREDIT HOURS | 15 |
| SOPHOMORE | MATH 2433, Calculus & Analytic Geometry III | 3 | MATH 2443, Calculus & Analytic Geometry IV | 3 |
| | 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, Spatial Thinking & GIS Visualization | 3 |
| | GIS 2013, Intro. to Geoinformatics | 3 | GIS 3023, Research Methods for Geoinformatics | 3 |
| | TOTAL CREDIT HOURS | 16 | TOTAL CREDIT HOURS | 16 |
| JUNIOR | GIS 3923, Intro. Statistics for Geoinformatics (Statistics Requirement) | 3 | GIS 4453, GIS and Spatial Analysis | 3 |
| | GIS 4013, GIS Principles & Applications | 3 | Remote-Sensing Course Requirement | 3 |
| | Remote-Sensing Course Requirement | 3 | Computer-Related Course Requirement | 3 |
| | Cognate Course | 3 | Upper-Division Science Elective | 3 |
| | Computer-Related Course Requirement | 3 | Cognate Course | 3 |
| | TOTAL CREDIT HOURS | 15 | TOTAL CREDIT HOURS | 16 |
| SENIOR | GIS 4653, Spatial Programming | 3 | GIS 4200, GIS Internship | 3 |
| | Upper-Division Science Elective | 3 | GIS 4953, GIS Capstone | 3 |
| | Upper-Division Science Elective | 3 | Upper-Division Science Elective | 3 |
| | Cognate Course | 3 | Upper-Division Science Elective | 3 |
| | Non-Western Culture (Core IV) | 3 | Free Elective | 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 (3 hours, 1 course) | Computer-Related (6 hours, 2 courses) | |
|--|--|--|--|
| GEOG 4133, Fund. of Remote Sensing GEOG 4233, Digital Image Processing GIS 4393, Automated Analysis of Spatial Grids GIS 4970, Topics (Remote Sensing) | ANTH 4713, Stat. Concepts in Anthropology ECON 2843, Elements of Statistics ECON 4223, Econometric Analysis ECON 4233, Intro. to Applied Econometrics GIS 3923, Intro. Statistics for Geoinformatics MATH 4753, Applied Statistical Methods METR 4313, Statistical Meteorology P SC/SOC 3123, Social Statistics PSY 2003, Understanding Statistics PSY 2113, Research Methods I: Statistics | C S 1323, Intro. to Computer Programming MIS 2113, Computer-Based Info. Systems MIS 3013, Intro. to Programming | |
| 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. | |
| _____ | | _____ | |
| _____ | | _____ | |