

# GEOGRAPHY & GEOGRAPHIC INFORMATION SCIENCE: PHYSICAL GEOGRAPHY, BSLAS

for the degree of Bachelor of Science in Liberal Arts & Sciences in Geography & Geographic Information Science, Physical Geography Concentration

A Bachelor of Science in Geography & Geographic Information Science with the Physical Geography concentration will prepare students to examine the environmental sciences including patterns of climate, landforms, vegetation, soils, and water.

Graduates will be equipped for careers in environmental science and consulting, land and water resource management, and remote sensing using satellite data and UAVs (drones).

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## Graduation Requirements

Minimum hours required for graduation: 120 hours

Minimum required major and supporting coursework: A minimum of 35 credit hours of Geography & Geographic Information Science courses. Twelve (12) hours of 300- and 400-level courses in the major must be taken on this campus.

## University Requirements

Minimum of 40 hours of upper-division coursework, generally at the 300 and 400 level. These hours can be drawn from all elements of the degree, including courses outside of GIS. Students should consult their academic advisor for additional guidance in fulfilling this requirement.

The university and residency requirements can be found in the Student Code (<https://studentcode.illinois.edu/article3/part8/3-801/>) (§ 3-801) and in the Academic Catalog (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

## General Education Requirements

Follows the campus General Education (Gen Ed) requirements (<https://courses.illinois.edu/gened/DEFAULT/DEFAULT/>). Some Gen Ed requirements may be met by courses required and/or electives in the program.

Code	Title	Hours
	Composition I	4-6
	Advanced Composition	3
	Humanities & the Arts (6 hours)	6
	Natural Sciences & Technology (6 hours)	6
	Social & Behavioral Sciences (6 hours)	6

fulfilled by GIS 101, GIS 104, GIS 106, GIS 210, GIS 221, or GIS 254 and any other course approved Social & Behavioral Sciences

Cultural Studies: Non-Western Cultures (1 course)	3
Cultural Studies: US Minority Cultures (1 course)	3
Cultural Studies: Western/Comparative Cultures (1 course)	3
Quantitative Reasoning (2 courses, at least one course must be Quantitative Reasoning I)	6-10
Language Requirement (Completion of the fourth semester or equivalent of a language other than English, or completion of the third semester in two different languages other than English is required)	0-20

Code	Title	Hours
<b>Orientation and Professional Development</b>		
LAS 101	Design Your First Year Experience	1
OR		
LAS 100 & LAS 101	Success in LAS for International Students and Design Your First Year Experience	3
OR		
LAS 102	Transfer Advantage	1

## Major Requirements

Code	Title	Hours
<b>Geography &amp; GIS Core Requirements</b>		<b>6-8</b>
Physical Geography Course (Select 1):		
ATMS/GGIS 100	Introduction to Meteorology	
GGIS 103	Earth's Physical Systems	
GGIS 220	Landscapes, Ecosystems and Environmental Change	
GGIS 222	Big Rivers of the World	
Human Geography Course (Select 1):		
GGIS 101	Global Development & Environment	
GGIS 104	Social and Cultural Geography	
GGIS 106	Geographies of Globalization	
GGIS 210	Social & Environmental Issues	
GGIS 221	Geographies of Global Conflict	
GGIS 254	People, Places, and Environments of the US	

## Physical Geography Concentration Requirements

Code	Title	Hours
<b>Total Concentration Hours</b>		<b>29-31</b>
<b>GIS Courses (Select 1):</b>		
GGIS 371	Spatial Analysis	4
GGIS 379	Introduction to Geographic Information Systems	4

**200- to 400-level Geography and Geographic Information Science Courses (at least 8 hours must be at the 300- or 400- level) selected from the following:**

GGIS 220	Landscapes, Ecosystems and Environmental Change (if not taken to satisfy the Physical Core course requirement in the major)
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GGIS 222	Big Rivers of the World (if not taken to satisfy the Physical Core course requirement in the major)
GGIS 223	Geopolitics & Technology
GGIS 224	Environmental Data Science
SOC/GGIS 280	Intro to Social Statistics
ESE 320/GGIS 370	Water Planet, Water Crisis
GGIS 371	Spatial Analysis (if not taken to satisfy the GIS Core Course requirement in the major)
GGIS 379	Introduction to Geographic Information Systems (if not taken to satisfy the GIS Core Course requirement in the major)
GGIS 380	Geographic Information Systems II
GGIS 381	Enterprise GIS
GGIS 390	Independent Study
GGIS 391	Honors Independent Study
NRES/GGIS 401	Watershed Hydrology
GGIS 403	Geographic Information Science and Systems
GGIS 405	Geography Field Course
GGIS 406	Fluvial Geomorphology
GGIS 407	CyberGIS & Geospatial Data Science
GGIS 408	Humans and River Systems
GGIS 412	Geospatial Technologies & Society
ATMS/GGIS 421	Earth Systems Modeling
IB 439/GGIS 436	Biogeography
GGIS 439	Health Applications of GIS
CEE/GGIS 459	Ecohydraulics
GGIS 460	Aerial Photo Analysis
GGIS 473	Digital Cartography & Map Design
GGIS 476	Environmental Remote Sensing
GGIS 477	Introduction to Remote Sensing
GGIS 478	Techniques of Remote Sensing
GGIS 479	Advanced Topics in GIS
GGIS 480	Principles of Geographic Information Science
GGIS 489	Programming for GIS

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## Sample Sequence

This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

Students must fulfill their Language Other Than English requirement by successfully completing a fourth level of a language other than English. See the corresponding section on the Degree and General Education

Requirements page (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

First Year	
First Semester	Hours
LAS 101	1
Physical Geography course	3
Composition I or General Education course	4
Language Other Than English (3rd level)	4
Free Elective course	3
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<b>15</b>	

Total Hours 15	
First Year	
Second Semester	Hours
Human Geography course	4
GGIS Coursework (200- to 400-level)	3
General Education course or Composition I	3
Language Other Than English (4th level)	4
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<b>14</b>	

Total Hours 14	
Second Year	
First Semester	Hours
GGIS Coursework (200- to 400-level)	3
GGIS Coursework (200- to 400-level)	3
General Education course	3
General Education course	3
Free Elective course	3
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<b>15</b>	

Total Hours 15	
Second Year	
Second Semester	Hours
GGIS Coursework (200- to 400-level)	3
GGIS Coursework (200- to 400-level)	4
General Education course	3
Free Elective course	3
Free Elective course	3
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<b>16</b>	

Total Hours 16	
Third Year	
First Semester	Hours
GGIS 371 or 379	4
GGIS Coursework (200- to 400-level)	4
General Education course	3
General Education course	3

Free Elective course	3
	<b>17</b>

**Total Hours 17****Third Year**

First Semester	Hours
GGIS Coursework (300-/400-level)	4
General Education course	3
General Education course	3
Free Elective course	3
Free Elective course	3
	<b>16</b>

**Total Hours 16****Fourth Year**

First Semester	Hours
GGIS Coursework (300-/400-level)	4
General Education course	3
General Education course	3
Free Elective course	2
Free Elective course	2
	<b>14</b>

**Total Hours 14****Fourth Year**

Second Semester	Hours
General Education course	3
Free Elective course	3
Free Elective course	3
Free Elective course	4
	<b>13</b>

**Total Hours 13****Total Hours: 120**

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## Geographic Understanding

GGIS students will understand the interconnectedness of places and scales in human-environmental systems, including the sustainability of those systems.

## Spatial Patterns and Processes

GGIS students will be able to analyze spatial patterns, distributions, processes, and connections within and among different human-environmental systems, using qualitative, quantitative, computational, and/or spatial methods of research appropriate to their level of training and their field of geographic inquiry.

## Problem-Solving and Communication

GGIS students will be able to formulate and conduct geographic analyses and communicate the results in verbal, written, and visual form.

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## For the Degree of Bachelor of Science in Liberal Arts and Sciences

- Major in Computer Science & Geography & GIS, BSLAS ([http://catalog.illinois.edu/undergraduate/eng\\_las/computer-science-geography-geographic-information-science-bslas/](http://catalog.illinois.edu/undergraduate/eng_las/computer-science-geography-geographic-information-science-bslas/))
- Major in Geography & Geographic Information Science, Geographic Information Science Concentration, BSLAS (<http://catalog.illinois.edu/undergraduate/las/geography-geographic-information-science-bslas/geographic-information-science/>)
- Major in Geography & Geographic Information Science, Physical Geography Concentration, BSLAS (p. 1)

## For the Degree of Bachelor of Arts in Liberal Arts and Sciences

- Major in Geography & Geographic Information Science, General Geography Concentration, BALAS (<http://catalog.illinois.edu/undergraduate/las/geography-geographic-information-science-balas/general-geography/>)
- Major in Geography & Geographic Information Science, Human Geography Concentration, BALAS (<http://catalog.illinois.edu/undergraduate/las/geography-geographic-information-science-balas/human-geography/>)

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## Department of Geography & Geographic Information Science (<https://ggis.illinois.edu/>)

Faculty directory (<https://ggis.illinois.edu/directory/faculty/>)  
Undergraduate advising (<https://ggis.illinois.edu/academics/undergraduate/advising/>)

## College of Liberal Arts & Sciences

College of LAS homepage (<https://las.illinois.edu/>)  
Admissions & Requirements (<http://catalog.illinois.edu/schools/las/academic-units/>)

## Admissions

University of Illinois Urbana-Champaign Undergrad Admissions (<https://www.admissions.illinois.edu/>)