

# Geography, B.A.

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## Degree Offered

- Bachelor of Arts

## Nature of the Program

Geography teaches you how the world works. Geographers use spatial concepts and tools to examine problems that face communities around the world, such as protecting vulnerable landscapes and species, the local and global effects of climate change, and the connections between people across the globe.

Our students study aspects of the natural sciences, social sciences, and humanities while developing skills in spatial investigation and problem-solving that are valuable assets in a variety of careers. Geography graduates are qualified for many careers in both the private and public sectors. In industry, geographers are hired as geographic information system analysts, business location researchers, environmental impact consultants, market analysts, and cartographers. In government, geographers work as local urban planners, regional and state economic development specialists, environmental and resource development analysts, land-use planners, international development agency advisors, teachers and trainers, researchers, cartographers, as well as geographic information system analysts. Some graduates may also use their training to pursue careers as environmental or community activists in non-profit organizations. Finally, many geography students go on to graduate school to obtain further training, most commonly in geography or planning but also in fields as diverse as law, information science, and environmental studies.

Geography students receive specialized training in areas such as:

- Geographic Information Science (GISc)
- Globalization and Development
- Global Environmental Change

Students who earn a degree in the Eberly College of Arts and Sciences must complete the University requirements, the College requirements for their specific degree program, and their major requirements.

## Internship

An internship is a field-based academic option that uses the workplace as an extended classroom/laboratory. As part of the internship, students usually spend summer months or a semester working at a public agency, private business, or non-profit organization where they are supervised by experts in such areas as GIS, planning, the physical environment, international affairs, or economic development. The professional learning experience is recommended for majors in geography with at least forty-five total credit hours and twelve credit hours in geography. See the geography internship advisor for additional information.

## Honors Program

Qualified students in geography are encouraged to participate in the University's honors program. Geography honors students in their senior year are encouraged to take Honors Thesis.

## Minors

All students have the possibility of earning one or more minors; follow the link for a list of all available minors and their requirements (<http://catalog.wvu.edu/undergraduate/minors/>). Please note that students may not earn a minor in their major field.

## FACULTY

### CHAIR

- Brent McCusker - Ph.D. (Michigan State University)

### ASSOCIATE CHAIR

- Jaime Toro - Ph.D. (Stanford University)

### PROFESSORS

- Kathleen Benison - Ph.D. (The University of Kansas)  
Regular Graduate Faculty, Sedimentary Geology - Planetary Geology
- Dengliang Gao - Ph.D. (Duke University)  
Regular Graduate Faculty, Exploration Geophysics, Petroleum and Structural Geology
- Amy Hessel - Ph.D. (University of Arizona)

Regular Graduate Faculty, Biogeography, Forest Ecosystems, Climate Variability

- Brent McCusker - Ph.D. (Michigan State University)  
Regular Graduate Faculty, Land Use Change, Africa, Policy Making
- Shikha Sharma - Ph.D. (University of Lucknow)  
Regular Graduate Faculty, Isotope Geochemistry
- Jaime Toro - Ph.D. (Stanford University)  
Regular Graduate Faculty, Structure and Tectonics
- Dorothy Vesper - Ph.D. (Pennsylvania State University)  
Regular Graduate Faculty, Aqueous Geochemistry, Hydrogeology

## **ASSOCIATE PROFESSOR**

- Jamison Conley - Ph.D. (Pennsylvania State University)  
Regular Graduate Faculty, Spatial Analysis, Geocomputation, Health Geography
- Karen Culcasi - Ph.D. (Syracuse University)  
Regular Graduate Faculty, Geopolitics, Identity, Middle East
- Cynthia Gorman - Ph.D. (Rutgers University)  
Regular Graduate Faculty, Gender, Migration, Human Rights, Refugee Communities
- James Lamsdell - Ph.D. (The University of Kansas)  
Regular Graduate Faculty, Paleobiology, Arthropods, Macroevolution, Heterochrony, Paleoecology, Phylogenetics
- Joseph Lebold - Ph.D. (West Virginia University)  
Regular Graduate Faculty, Paleoecology, Paleontology, Regional Geology
- Brenden McNeil - Ph.D. (Syracuse University)  
Regular Graduate Faculty, GIS, Environmental modeling, Forest Ecosystem Services
- Maria Alejandra Perez - Ph.D. (University of Michigan)  
Regular Graduate Faculty, Cultural Geography, Science & Technology Studies, Speleology, Latin America and the Caribbean
- Amy Weislogel - Ph.D. (Stanford University)  
Regular Graduate Faculty, Sedimentology
- Bradley Wilson - Ph.D. (Rutgers University)  
Regular Graduate Faculty, Social Movements, Local/Global Food Systems, Food Justice

## **ASSISTANT PROFESSOR**

- Vikas Agrawal - Ph.D. (West Virginia University)  
Associate Graduate Faculty, Chemical Hygiene Officer, Isotopic and Biogeochemical Characterization of Geological Materials, Energy and Environment
- Michael Harman - Ph.D. (West Virginia University)  
3D visualization, modeling complex landforms and processes, GIS
- Aaron Maxwell - Ph.D. (West Virginia University)  
Regular Graduate Faculty, Geospatial Instruction, Remote Sensing, Image Analysis, Spatial Modeling
- Charles Shobe - Ph.D. (University of Colorado - Boulder)  
Regular Graduate Faculty, Geomorphology, Earth Surface Processes, Landscape Evolution, Rivers, Source-to-Sink, Numerical Modeling

## **PROFESSOR EMERITI**

- Robert Behling - Ph.D. (The Ohio State University)
- Timothy Carr - Ph.D. (University of Wisconsin - Madison)
- Joe Donovan - Ph.D. (Pennsylvania State University)
- Greg Elmes - Ph.D. (Pennsylvania State University)
- Trevor Harris - Ph.D. (University of Hull)
- Thomas Kammer - Ph.D. (Indiana University)
- Steven Kite - Ph.D. (University of Wisconsin)
- Kenneth C. Martis - Ph.D. (Michigan University)
- Henry Rauch - Ph.D. (Pennsylvania State University)
- Robert C. Shumaker - Ph.D. (Cornell University)
- Richard Smosna - Ph.D. (University of Illinois)
- Timothy Warner - Ph.D. (Purdue University)
- Thomas Wilson - Ph.D. (West Virginia University)

## Admissions

- First-Time Freshmen are admitted directly into the Geography major.
- Students transferring from within WVU to the Geography major must have a minimum overall GPA of 2.0.
- Students transferring from another institution must have a minimum GPA of a 2.0.

## ADMISSION REQUIREMENTS 2024-2025

The Admission Requirements above will be the same for the 2024-2025 Academic Year.

Major Code: 1444

[Click here to view the Suggested Plan of Study \(p. 5\)](#)

## General Education Foundations

Please use this link to view a list of courses that meet each GEF requirement. (<http://registrar.wvu.edu/gef/>)

NOTE: Some major requirements will fulfill specific GEF requirements. Please see the curriculum requirements listed below for details on which GEFs you will need to select.

Code	Title	Hours
<b>General Education Foundations</b>		
F1 - Composition & Rhetoric		3-6
ENGL 101 & ENGL 102 or ENGL 103	Introduction to Composition and Rhetoric and Composition, Rhetoric, and Research Accelerated Academic Writing	
F2A/F2B - Science & Technology		4-6
F3 - Math & Quantitative Reasoning		3-4
F4 - Society & Connections		3
F5 - Human Inquiry & the Past		3
F6 - The Arts & Creativity		3
F7 - Global Studies & Diversity		3
F8 - Focus (may be satisfied by completion of a minor, double major, or dual degree)		9
Total Hours		31-37

Please note that not all of the GEF courses are offered at all campuses. Students should consult with their advisor or academic department regarding the GEF course offerings available at their campus.

## Degree Requirements

Students must complete WVU General Education Foundations requirements, College B.A. requirements, major requirements, and electives to total a minimum of 120 hours. For complete details on these requirements, visit the B.A. Degrees tab on the Eberly College of Arts and Sciences (<http://catalog.wvu.edu/undergraduate/eberlycollegeofartsandsciences/#bachelorofartstext>) page.

## Departmental Requirements for the B.A. in Geography

- **Capstone Requirement:** The university requires the successful completion of a Capstone requirement. In GEOG, students will take GEOG 496 simultaneously with either GEOG 491 or any GEOG 400 level course.\*
- **Writing and Communication Requirement:** Geography Bachelor of Arts students fulfill the Writing and Communication Skills requirement by completing ENGL 101 and ENGL 102 (or ENGL 103), and two additional **SpeakWrite Certified Courses™**: GEOG 496 and a 2<sup>nd</sup> course selected from GEOG 205, GEOG 243, GEOG 300, GEOG 302, GEOG 303, GEOG 307, GEOG 393, GEOG 412, GEOG 415, GEOG 443, GEOG 452, GEOG 454, GEOG 455, GEOG 462.
- **Calculation of Major GPA:** A minimum GPA of a 2.0 is required in all courses applied to major requirements. If a course is repeated, all attempts will be included in the calculation of the GPA, unless the course is eligible for a D/F repeat.

## Curriculum Requirements

Code	Title	Hours
	University Requirements	76
	ECAS B.A. Requirements	12

Geography Major Requirements	32
Total Hours	120

## University Requirements

Code	Title	Hours
General Education Foundations (GEF) 1, 2, 3, 4, 5, 6, 7, and 8 (31-37 Credits)		
Outstanding GEF Requirements 1, 3, 4, 5, 6, and 8		27
GEOG 191	First-Year Seminar	1
General Electives		48
Total Hours		76

## ECAS Bachelor of Arts Requirements

Code	Title	Hours
Fine Arts Requirement		
Foreign Language		12
Global Studies and Diversity Requirement		
Total Hours		12

## Geography Major Requirements

Code	Title	Hours
<b>CORE COURSES:</b>		<b>10</b>
GEOG 102 or GEOG 108	World Regions Human Geography	
GEOG 107 & 107L	Global Climate System and Global Climate System Laboratory	
Select one of the following:		
GEOG 150 & 150L	Digital Earth and Digital Earth Laboratory	
GEOG 205	Climate and Sustainability	
GEOG 209	Economic Geography	
<b>GEOSPATIAL TECHNIQUES REQUIREMENT:</b>		<b>3</b>
Select one of the following:		
GEOG 300	Geographical Data Analysis	
GEOG 350	Geographic Information Systems and Science	
GEOG 455	Introduction to Remote Sensing	
GEOG 457	Open-Source Spatial Analytics	
GEOG 462	Digital Cartography	
<b>UPPER-DIVISION ELECTIVES:</b>		<b>12</b>
Select 4 courses from the following list. A minimum of 6 credits must be in GEOG.		
Any GEOG course at the 300 level or above *		
ANTH 457	Social Movements	
ANTH 458	Environmental Anthropology	
BIOL 463	Global Ecology	
ENGL 338	Environmental Criticism	
RESM 440	Foundations of Applied Geographic Information Systems	
RESM 455	Practice of Land Use Planning	
WGST 345	Women in International Development	
<b>GEOGRAPHY ELECTIVE:</b>		<b>3</b>
Any additional GEOG course		
<b>CAPSTONE EXPERIENCE:</b>		<b>4</b>
GEOG 496	Senior Thesis	
Select one of the following:		

GEOG 491	Professional Field Experience
OR	
Any GEOG course at the 400 level *	
Total Hours	32

\*

GEOG course(s) selected to fulfill this requirement should not already fulfill another GEOG requirement and also exclude 490, 492, 494, 495, 496, 497, 498, 499.

## Suggested Plan of Study

### First Year

Fall	Hours	Spring	Hours
GEOG 191		1 ENGL 101 (GEF 1)	3
Foreign Language 101		3 Foreign Language 102	3
GEOG 102 or 108 (GEF 7)		3 GEOG 107 & 107L	4
F8 Course 1		3 F8 Course 2	3
General Elective		3 General Elective	3
General Elective		3	
		16	16

### Second Year

Fall	Hours	Spring	Hours
ENGL 102 (GEF 1)		3 Foreign Language 204	3
Foreign Language 203		3 GEF 5	3
GEF 3		3 ECAS Fine Arts Requirement (GEF 6)	3
GEF 4		3 GEOG Elective	3
Final GEOG Core Course		3 General Elective	3
		15	15

### Third Year

Fall	Hours	Spring	Hours
GEOG Geospatial Techniques Requirement		3 GEOG Upper-Division Elective 2	3
GEOG Upper-Division Elective 1		3 GEOG Upper-Division Elective 3	3
GEF 8 Course 3		3 General Elective	3
General Elective		3 General Elective	3
General Elective		3 General Elective	3
		15	15

### Fourth Year

Fall	Hours	Spring	Hours
GEOG Capstone Requirement (1 credit in 496 + additional 400 level course) *		4 GEOG Upper-Division Elective 4	3
General Elective		3 General Elective	3
General Elective		3 General Elective	3
General Elective		3 General Elective	3
General Elective		1 General Elective	2
		14	14

Total credit hours: 120

\*

GEOG course(s) selected to fulfill this requirement should not already fulfill another GEOG requirement and also exclude 490, 492, 494, 495, 496, 497, 498, 499.

## Degree Progress

- Geography majors are expected to maintain 2.0 GPA overall and in geography courses.
- All majors must meet with Geography adviser each semester.

Students who do not meet these benchmarks may be removed from their major.

## Major Learning Outcomes

### GEOGRAPHY

Upon successful completion of the B.A. degree, **Geography** majors will be able to use key geographic concepts to critically analyze diverse topics and processes. Specifically, geography graduates will be able to:

1. Define the range of issues and topics relevant to geographic inquiry and analysis.
2. Apply qualitative and quantitative geographic analytical methods.
3. Collect, organize, summarize, and synthesize geographic information.
4. Demonstrate an understanding of the geographic nature and complexity of human environment relationships, environmental systems, and the patterns of human activities.
5. Apply geospatial technologies, and critically explain their role in modern society.
6. Connect everyday issues to geographic concepts, and situate these issues within the local to global continuum of scales.
7. Present geographic ideas and concepts effectively in oral, written, cartographic and other visual forms.