

Interested in This Major?

Current Students: Visit us in Bolton Hall, Room 410, call us at 414-229-4866, or email npapakis@uwm.edu

Not a UWM Student yet? Call our Admissions Counselor at 414-229-7711 or email let-sci@uwm.edu

web: uwm.edu/geography



What is Geography?

Many students believe that geography is just about maps. Geographers indeed design and use maps (specialists in this area are called cartographers), but the field is much broader than this.

Geography is sometimes described as the science that bridges the physical world and the human world.

Geography encompasses a wide field of inquiry that draws on the physical and social sciences, and the humanities.

One important tradition is the focus on human relationships with human-made and natural environments and how those relationships have changed over time. Long-range climate predictions, population growth and shifts, land use change, and animal migration patterns are just a few examples of the issues geographers study to better understand the planet's impact on people and vice versa.

Other types of geographers analyze spatial patterns of social, economic, political, cultural, ecological and environmental characteristics and how these patterns change over time. The field addresses not just the pinpoints on a map, but also how they got there and where they might be going.

Human geographers focus on place, territory, and landscapes, seeking to understand how cultural and economic practices are reshaping boundaries, environments, and "sense of place" in an age of rapid globalization and continuing development.

Physical geographers study landforms, climate, plants, animals, and interactions. Their research is integrated with the research of archaeologists, biologists, geologists, and meteorologists.

Technology has changed how some geographers conduct their research. Geographic Information Science (GIS) is a high-tech approach to mapping and analyzing data. Satellite images (remote sensing) allow collection and processing of large sets of information about the Earth's surface. Some geographers use GIS and remote sensing to plot data to observe and interpret patterns and trends, creating easily-understood communication tools.

Careers for Geographers

Very few students will end up with a job title of "geographer." However, people with an education in geography are found in a number of different positions across many industries.

Geography students graduate with an exceptional ability to process spatial data, as well as the capacity to think critically about the complexities of space, place and the environment. They understand how to make sense of seemingly unrelated pieces of information and create a problem-solving plan that is based on a consideration of both facts and diverse values. They also are adept at presenting information visually and knowing the value of this type of communication to customers, colleagues, government agencies and community members.

Students with a bachelor's degree find employment as:

- Urban planners
- Construction / architectural project managers
- Transportation / logistics managers
- Environmental monitors or protection officers
- Researchers or laboratory technicians
- Emergency management planners
- Librarians and teachers
- Real estate developers and appraisers
- GIS technicians or analysts
- Marketing specialists
- Utility managers

Geography at UWM

Students choose from one of five tracks:

Geographic information science. Focuses on GIS and other techniques for data management.

Urban. Focuses on cities and metropolitan areas.

Environmental. Ideal for the student who is interested in natural resources and urban environmental problems.

Physical systems. Includes the study of climate, soil, land forms and biological features of the earth.

Globalization, Cultures, and Societies. Ideal for the student interested in a wide range of topics in human geography.

Geography majors may earn either a Bachelor of Arts or Bachelor of Science degree depending on their track and course selection. In general, the BS is for students in the physical systems track. Students in the other tracks may choose between the BA or BS degree. Students are encouraged to consult with their advisor early in the planning process.

Core Requirements of the Major

The geography major requires a minimum of 37 credits, eighteen of which must be at or above the 300-level, and fifteen of which must be taken at UWM. A minimum 2.5 GPA is required for all courses in the major. Regardless of which track is chosen, all students complete the 24-25 credits that make up the core curriculum:

Course #	Course Title
3 credits in human geography chosen from an approved list	
3 credits in physical or environmental geography chosen from an approved list	
3 credits in a regional or world geography course chosen from an approved list	
Geog 215	Intro to Geographic Information Science
Geog 247	Quantitative Analysis in Geography
3 to 4 credits in an upper-level techniques course chosen from an approved list	
Geog 600	Perspectives on Geography
3 credits in a fieldwork research experience	

The remaining credits are comprised of required and elective courses within the chosen track.

Minor in Geography

The geography minor requires 18 credits, 9 of which must be at the 300-level or above taken at UWM. A minimum 2.5 GPA is required in all geography courses. Minors take:

3 credits in human geography
3 credits in a physical geography course
1 geographic analysis course

Minor in Geographic Information Science (GIS)

The Geographic Information Science minor also requires 18 credits, 9 of which must be at the 300-level or above taken at UWM. A minimum 2.5 GPA is required in all geography courses. Minors take:

Course #	Course Title
Geog 215	Intro to Geographic Information Science
Geog 525	Geographic Information Science
Geog 698	GIS/Cartography Internship
Two additional 4-credit courses in GIS	

A certificate is similar to a minor in the number of credits but involves classes from many different areas. UWM has a number of undergraduate certificates that complement geography including urban studies and urban planning.

Research Facilities

Students have access to many on campus resources that supply the tools and opportunities for gaining research experience.

The *American Geographical Society Library* is world-renowned and is one of the largest collections of maps, geographic volumes, photographs, atlases and globes.

The *Cartography and Geographic Information Science Center* contains a laboratory where professional quality maps and graphics are compiled, designed and produced. The Center also creates geographic and attribute files for analysis with Geographic Information Systems.

The *Soils and Physical Geography Laboratory* provides space and equipment for physical geographers.

Mary Jo Read Geography Fund

The Mary Jo Read Geography Fund provides scholarships, fellowships and awards to undergraduate and graduate students who demonstrate academic excellence in the field.

Events

The department hosts multiple colloquia each semester on a variety of geographical topics and featuring both local and national speakers. Graduate students also present their thesis or dissertation topics, and undergraduates present their senior research projects at department events.

Revised 09/2018



This sample four-year plan shows just one possible pathway to earning a degree with this major in four years. This plan **does not** replace the advice of your advisor, and students are cautioned to meet regularly with their advisor to create a personalized plan that matches their particular circumstances. This plan also follows the degree requirements for students who began their college education in Fall of 2013 or later. If you started college prior to Fall of 2013, your degree requirements may be different.

Degree Requirements for a Bachelor of Arts with a Geography major (brief summary):

(Geography is also available as a Bachelor of Science degree with a different set of requirements than listed below.)

1. English Proficiency and UWM Oral and Written Communication (OWC) GER - English 102 (fulfills Part A) and one OWC-Part B course.
2. Math Proficiency, UWM Quantitative Literacy (QL) GER, and Formal Reasoning – two courses can satisfy all three requirements. Some courses have prerequisites, however, so a student may end up taking more than two total classes depending on his/her placement test scores. Students will usually take Math 103 or 105 AND three credits in either a 200-level or above math course, Philosophy 211, or an approved Letters & Science statistics course.
3. Foreign Language – 4 semesters of a single Foreign Language (or 3 semesters of one language and 2 semesters of another language) (May be satisfied through 4 years of a single Foreign Language in high school.)
4. L&S Humanities (HU) – 12 credits
5. L&S Social Sciences (SS) – 12 credits
6. L&S Natural Science (NS) – 12 credits including one lab
7. L&S International (Int'l) – 9 credits usually accomplished in conjunction with Humanities and/or Social Science courses
8. UWM Arts GER – 3 credits
9. UWM Cultural Diversity GER (CD) – 3 credits usually accomplished in conjunction with a Humanities or Social Science course
10. 120 credits including 90 credits in L&S and with 36 of the 90 credits in L&S upper-level (numbered above 300) courses
11. Complete the Geography major requirements
 - 37-38 credits with at least 18 at the 300-level or above and with 15 completed at UWM
 - All tracks
 - » Geog 215, 247, and 600
 - » One of Geog 403, 405, 437, 525, or 547 (Geographic Information track must take 525)
 - » One of Geog 650 or 654 (Geog 489 or 497 may be substituted with faculty approval prior to enrollment)
 - Geographic Information track
 - » Two of Geog 403, 405, 437, 547
 - » Geog 625 and 698
 - Urban track
 - » Two of Geog 430, 441, 443, 540
 - » One of Geog 464, 520, 564
 - Environmental track
 - » Three of Geog 350, 464, 520, 564
 - Physical Systems track
 - » Three of Geog 310, 340, 415, 420, 424, 475
 - » 6 credits Electives in Geography numbered 300 or above that are approved for natural science
 - Globalization, Cultures, and Societies
 - » Any four courses from Geog 213, 231, 309, 330, 400, 410, 421, 430, 441, 443, 464, 470, 531, 540, 564, with at least two of them at the 400- or 500- level

Sample Four Year Plan – BA Geography:

There are hundreds of courses that satisfy various requirements and courses can count towards more than one requirement. For example, Geog 105 counts towards the major and as a social science course. (This sample assumes no high school Foreign Language was taken and that the student placed into college-level math and English.)

	Semester 1	Semester 2
Year 1	English 101	English 102 (OWC-A)
	Math 103 or 105 (QL-A)	Arts GER
	1st semester Foreign Language	2nd semester Foreign Language
	L&S Humanities/Cultural Diversity	Elective
	Geog 105 (SS) (Int'l)	Geog 120 (NS+)
Year 2	OWC-B course	L&S Humanities
	3rd semester Foreign Language (Int'l)	4th semester Foreign Language (Int'l)
	L&S Humanities	L&S Natural Science
	Geog 247 (SS) (QL-B)	Elective
	Geog 215	Geog 309 (SS)
Year 3	L&S Social Science, not Geog	L&S Social Science, not Geog
	L&S Natural Science	L&S Natural Science
	Geog upper-level track course	Geog upper-level track course
	Geog elective	Geog 403
	L&S upper-level	Elective
Year 4	Geog 600	Geog 650
	Geog upper-level track course	Geog upper-level (in the chosen track if needed)
	L&S upper-level	Elective
	L&S upper-level	L&S upper-level
	L&S Humanities	L&S upper-level

This sample four-year plan shows just one possible pathway to earning a degree with this major in four years. This plan **does not** replace the advice of your advisor, and students are cautioned to meet regularly with their advisor to create a personalized plan that matches their particular circumstances. This plan also follows the degree requirements for students who began their college education in Fall of 2013 or later. If you started college prior to Fall of 2013, your degree requirements may be different.

Degree Requirements for a Bachelor of Science with a Geography major (brief summary):

(Geography is also available as a Bachelor of Arts degree with a different set of requirements than listed below.)

1. English Proficiency and UWM Oral and Written Communication (OWC) GER - English 102 (fulfills Part A) and one OWC-Part B course.
2. Math Proficiency and UWM Quantitative Literacy (QL) GER, and Formal Reasoning - two courses are required for the Bachelor of Science. All BS students will take Math 211, 221, or 231 as part of the degree. They will also take one additional 200-level Math course, or Philosophy 212, or a Letters and Science statistics course. (A student may end up taking more than 2 classes, though, depending on placement test scores.)
3. Foreign Language – 2 semesters of a single Foreign Language (may be satisfied through 2 years of a single Foreign Language in high school)
4. L&S Humanities – 12 credits
5. L&S Social Sciences – 12 credits
6. L&S Natural Science – 12 credits including a laboratory course in three distinct natural science areas (NS or NS+)
7. L&S International – 9 credits usually accomplished in conjunction with Humanities and/or Social Science courses
8. UWM Arts GER – 3 credits
9. UWM Cultural Diversity GER – 3 credits usually accomplished in conjunction with a Humanities or Social Science course
10. 120 credits including 90 credits in L&S and with 36 of the 90 credits in L&S upper-level (numbered 300 and above) courses and 30 of those 36 credits in designated upper-level Natural Science
11. Complete the Geography major requirements
 - 37-38 credits with at least 18 at the 300-level or above and with 15 completed at UWM
 - All tracks
 - » One of Geog 105, 110, 114, or 140 (Urban track must take 140)
 - » Geog 120 or 125 (Physical Systems track must take 120, and Environmental track must take 125)
 - » One of Geog 115, 213, 214, 216, 231, 309, 330, 400, 410, 421, or 470
 - » Geog 215, 247, and 600
 - One of Geog 403, 405, 437, 525, or 547 (Geographic Information track must take 525)
 - One of Geog 650 or 654 (Geog 489 or 497 may be substituted with faculty approval prior to enrollment)
 - Geographic Information track
 - » Two of Geog 403, 405, 437, 547
 - » Geog 625 and 698
 - Urban track
 - » Two of Geog 430, 441, 443, 540
 - » One of Geog 464, 520, 564
 - Environmental track
 - » Three of Geog 350, 464, 520, 564
 - Physical Systems track
 - » Three of Geog 310, 340, 415, 420, 424, 475
 - » 6 credits Electives in Geography numbered 300 or above that are approved for natural science
 - Globalization, Cultures, and Societies
 - » Any four courses from Geog 213, 231, 309, 330, 400, 410, 421, 430, 441, 443, 464, 470, 531, 540, 564, with at least two of them at the 400- or 500- level

Sample Four Year Plan – BS Geography:

There are hundreds of courses that satisfy various requirements and courses can count towards more than one requirement. For example, Geog 105 counts towards the major and as a social science course. (This sample assumes no high school Foreign Language was taken and that the student placed into college-level math and English.)

	Semester 1	Semester 2
Year 1	English 101	English 102 (OWC-A)
	Math 105 (QL-A)	Math 211 (QL-B)
	1st semester Foreign Language	2nd semester Foreign Language
	L&S Humanities/Cultural Diversity	Elective
	Geog 105 (SS) (Int'l)	Geog 120 (NS+)
Year 2	OWC-B course	L&S Humanities
	L&S Natural Science with lab, not Geog	L&S Natural Science with lab, not Geog
	Geog 215	Geog 213 (SS) (Int'l)
	Geog 247 (formal reasoning)	L&S Social Science, not Geog
	L&S Humanities	Elective
Year 3	Arts GER	Geog 403
	Geog 310 (NS)	upper-level Geography natural science
	Geog 340 (NS)	L&S upper-level natural science
	L&S upper-level	L&S upper-level natural science
	Elective	Elective
Year 4	L&S Social Science, not Geog	L&S Humanities/International
	Geog 600	Geog fieldwork course
	upper-level Geography natural science	Geog 475 (NS)
	L&S upper-level natural science	L&S upper-level natural science
	Elective	Elective