

GEOGRAPHY, BS

In high school, your geography class probably focused on maps and locations – but the field is so much broader than that. Geography bridges the physical and human world, using both scientific and humanistic methods to explain, predict, and interpret people's impact on the planet and the planet's impact on people.

UWM's geography students graduate with exceptional abilities, both intellectual and technological, to analyze data about space, place, and people - and how they relate to each other. They understand how to make sense of seemingly unrelated pieces of information by bringing together diverse facts and values. They also are adept at presenting information visually - for example, maps!

Some examples of research topics that today's geographers are tackling include climate change, land use patterns, environmental justice, racial segregation, migration and refugees, natural hazards, and animal migration.

Geographic Information Science (GIS) is a growing specialty within geography. GIS is a technical system for capturing, storing, and analyzing diverse types of data in relation to location on Earth, and it enhances decision-making in both the private and public sectors. For example, a small town may use GIS data to determine where to place fire stations and personnel based on patterns of forest fires and populations; or a corporation may use GIS to plan the location of a new store based on shopping and traffic patterns.

At UWM, students can either focus on GIS or choose another specialty track: the urban track, investigating the dynamics of cities and urbanization; the climate-environment track, for those interested in climate change, natural hazards, and environmental problems and policy; or the globalization, societies and cultures track, for a broad approach to human geography and issues like economic, social, and racial inequality; migration; and cultural change.

Course of Study – Bachelor of Science Degree

Complete 120 credits including 75 credits in the College of Letters & Science and with 36 of the 75 credits in L&S upper-level (numbered above 300) courses and 30 of those 36 credits in designated L&S Advanced Natural Science courses (<https://catalog.uwm.edu/letters-science/approved-courses-advanced-natural-science/>).

The College requires that students complete in residence at UWM at least 15 credits in upper-division (numbered 300 or above) courses in their major. The College also requires that students complete at least 30 credits overall in residence at UWM. For additional residency and transfer credit limitations, see L&S Undergraduate Policies and Regulations (<https://catalog.uwm.edu/letters-science/#policiesandregulationstext>).

Students are also required to complete University-wide General Education Requirements (<https://catalog.uwm.edu/policies/undergraduate-policies/#bachelorsdegreegeneraleducation>) and the specific L&S requirements listed below.

To complete a major, students must satisfy all the requirements of the major as stated in this catalog. Students who declare their majors within five years of entering the UW System as a degree candidate may satisfy the requirements outlined in any catalog issued since the time they

entered. Credits used to satisfy the major also may be used to satisfy other degree requirements.

University General Education Requirements (GER)

Code	Title	Credits
Oral and Written Communication		
<i>Part A</i>		
Achieve a grade of C or better in the following course:		
ENGLISH 102	College Writing and Research (or equivalent)	
<i>Part B</i>		
Course designated as OWC-B; may be completed through a major-specific course requirement		
Quantitative Literacy		
<i>Part A</i>		
Earn at least 3 credits with a grade of C or higher in one of the following courses or an equivalent course, or achieve a placement code of at least 30 on the mathematics placement test (or other appropriate test, as determined by the Mathematical Sciences Department)		
MATH 102	Mathematical Literacy for College Students II	
MATH 103	Contemporary Applications of Mathematics	
MATH 105	Introduction to College Algebra	
MATH 108	Algebraic Literacy II	
MATH 111	Introduction to Logic - Critical Reasoning ¹	
or PHILOS 111	Introduction to Logic - Critical Reasoning	
MATH 116	College Algebra	
Or equivalent course		
<i>Part B</i>		
Course designated as QL-B; may be completed through a major-specific course requirement		
Arts		
Select 3 credits		3
Humanities		
Select 6 credits		6
Social Sciences		
Select 6 credits		6
Natural Sciences		
Select 6 credits (at least two courses including one lab)		6
UWM Foreign Language Requirement		
Complete Foreign Language Requirement through:		
Two years (high school) of a single foreign language		
Two semesters (college) of a single foreign language		
Or equivalent		
UWM Cultural Diversity Requirement		
One course from the Arts, Humanities, or Social Sciences must also satisfy UWM's Cultural Diversity requirement		

¹ Math 111 and Philosophy 111 are jointly offered and count as repeats of one another. Students cannot receive credit for both courses.

College of Letters & Science Requirements

The degree requirements in the College of Letters and Science build on the University General Education Requirements to provide a broad base of knowledge as well as an array of skills cited by employers as critical to professional success: critical thinking, problem solving, oral and written communication, ability to work well with others, and adaptability to change.

For the Bachelor of Science (B.S.), you must complete the UWM General Education Requirements as well as these L&S requirements: the International requirement, the Breadth requirement, and the Research requirement. The International requirement develops your potential for cross-cultural understanding in a globalizing world. The Breadth requirement ensures that you take classes in a wide variety of subjects, across humanities, natural sciences, and social sciences. The Research requirement calls for you to build your critical thinking and oral and written communication skills through conducting an independent research project, usually in your major.

For the Bachelor of Science (B.S.) you will complete additional coursework in L&S Advanced Natural Science courses (<https://catalog.uwm.edu/letters-science/approved-courses-advanced-natural-science/>).

I. Total Credits and Upper-Division Courses Requirement

Students must complete 120 credits including 75 credits in the College of Letters & Science and with 36 of the 75 credits in L&S upper-level (numbered above 300) courses.

II. L&S Advanced Natural Sciences Requirement

For the Bachelor of Science, students must complete 30 credits of the 36 credits in upper-division courses in designated L&S Advanced Natural Science courses (<https://catalog.uwm.edu/letters-science/approved-courses-advanced-natural-science/>).

III. International Requirement

To meet the International Requirement, students must successfully complete some three course (minimum 9 credits) combination of

- 1. language other than English (*not* including American Sign Language) at 3rd semester level or above, *and/or*
- 2. non-language courses with L&S approved international content (see Courses Approved for the L&S International Requirement (<https://catalog.uwm.edu/letters-science/approved-courses-international-requirement/>) for course options).

IV. Breadth Requirement

In addition to completing the University General Education Requirements, L&S students must complete the Breadth requirement.

The L&S Breadth requirement calls for 6 credits each in L&S courses designated L&S Humanities, L&S Natural Sciences, and L&S Social Sciences breadth. One of the L&S Natural Science breadth courses must be a laboratory or fieldwork course. These courses must be beyond and in addition to courses in those areas used to satisfy General Education Requirements.

Please refer to the list of Courses Approved for the L&S Breadth Requirement (<https://catalog.uwm.edu/letters-science/breadth-requirement-course-list/>).

V. The Major

The College requires that students attain at least a 2.0 GPA in all credits in the major attempted at UWM. In addition, students must attain a

2.0 GPA on all major credits attempted, including any transfer work. Individual departments or programs may require higher GPAs for graduation. Some departmental majors require courses from other departments. Contact your major department for information on whether those credits will count as part of the major GPA. The College requires that students must complete in residence at UWM at least 15 credits in upper-division (numbered 300 or above) courses in their major.

Research Requirement

Within their majors, students must complete a research experience approved by the L&S faculty. A list of courses satisfying the research requirement in each major can be found here (<https://catalog.uwm.edu/letters-science/approved-courses-research-requirement/>).

VI. The Minor

Students are encouraged to consider completing a minor, but it is not required. To complete a minor, the College of Letters and Science requires that students attain at least a 2.0 GPA in all credits in the minor attempted at UWM. In addition, students must attain a 2.0 GPA on all minor credits attempted, including any transfer work. The minor must contain at least 9 credits in upper-division (numbered 300 and above) courses.

Geography Major Requirements

Students must meet with the department’s undergraduate advisor to declare geography as a major.

Geography majors may earn either a Bachelor of Arts or Bachelor of Science degree. In satisfying their major requirements, all students must complete at least 30 credits in geography, 18 of which must be at or above the 300 level, with at least 15 of those taken in residence at UWM. Courses taken outside geography that fulfill geography requirements will be included in the major GPA. Majors must have a 2.0 GPA in all geography credits attempted at UWM, as well as in any transfer work counting toward the Geography major.

Code	Title	Credits
Core Curriculum		
Select one of the following courses in human geography:		3
GEOG 105	Introduction to Human Geography	
GEOG 110	The World: Peoples and Regions	
GEOG 114	Geography of Race in the United States	
GEOG 115	Globalization and Economic Development	
GEOG 213	Geography of Asia	
Select one of these courses in physical or environmental geography:		3
GEOG 120	Our Physical Environment	
GEOG 125	Introduction to Environmental Geography ¹	
The following courses are required for all majors:		
GEOG 215	Introduction to Geographic Information Science	3
GEOG 247	Quantitative Analysis in Geography ²	3
GEOG 600	Perspectives on Geography (satisfies L&S research requirement)	3
Select one of the following upper-level experiential learning courses: ³		3
GEOG 650	Geography Field Work	

GEOG 489	Internship in Geography, Upper Division ⁴	
GEOG 497	Study Abroad:	
GEOG 698	GIS/Cartography Internship ⁴	
GEOG 699	Independent Work ⁴	
Electives		
Select 12 credits in geography electives numbered 300 or above		12
Total Credits		30

¹ In order to fulfill the physical/environmental geography requirement for the major, CES 210 Introduction to Conservation and Environmental Science will be accepted as a substitute for GEOG 125.

² PSYCH 210, SOCIOL 261, or MTHSTAT 215 shall be accepted as a substitute for GEOG 247 to fulfill the statistics requirement for students majoring in geography. With the approval of the undergraduate advisor, majors may substitute a different elementary statistics course from another discipline for the GEOG 247 requirement.

³ CES 489 (Internship in Environmental Studies, Upper Division) or CES 451 (Field Methods in Conservation) will be accepted to fulfill this requirement.

⁴ Students must obtain approval from their **faculty advisor and the undergraduate coordinator** to select one of these courses.

Cross-listed Course

The following course offered by the Department of Geosciences may be used to fulfill the requirements of the undergraduate major or minor in geography.

Code	Title	Credits
GEO SCI 409	Process Geomorphology	4

Geography BA/BS Learning Outcomes

Students graduating from the Geography Bachelor's programs will be able to:

1. Identify and explain patterns and processes of human and physical geography including the diversity of the earth's peoples and environments, and the interactions between humanity and the earth's environments.
2. Demonstrate competency in comprehending, constructing, and processing spatial information in maps, graphs, and spatial datasets.
3. Evaluate and interpret contemporary problems contextually at local, regional, and global scales.
4. Design and complete a guided research project in their area of concentration, using appropriate geographic research skills and methods, such as GIS, spatial analysis and/or other quantitative methods, or qualitative methods (including archival research, interviews, etc.).
5. Clearly and effectively communicate geographic knowledge and research in writing, orally, and/or visually.
6. Understand and position themselves within the range of careers or professional work that employ geographic skills.

Letters & Science Advising

During your time at UWM, you may have multiple members of your success team, including advisors, peer mentors and success coaches. Letters & Science students typically work with at least two different types of advisors as they pursue their degrees: professional college advisors

and faculty advisors. L&S college advisors advise across your entire degree program while departmental faculty advisors focus on the major.

College advisors are located in Holton Hall (or virtually for online students) and serve as your primary advisor. They are your point person for your questions about navigating college and completing your degree. College advisors will:

- Assist you in defining your academic and life goals.
- Help you create an educational plan that is consistent with those goals.
- Assist you in understanding curriculum, major and degree requirements for graduation, as well as university policies and procedures.
- Provide you with information about campus and community resources and refer you to those resources as appropriate.
- Monitor your progress toward graduation and completion of requirements.

Faculty advisors mentor students in the major and assist them in maximizing their development in the program. You will begin working with a faculty advisor when you declare your major. Faculty advisors are an important partner and will:

- Help you understand major requirements and course offerings in the department.
- Explain opportunities for internships and undergraduate research and guide you in obtaining those experiences.
- Serve as an excellent resource as you consider potential graduate programs and career paths in your field.

Students are encouraged to meet with both their college advisor and faculty advisor at least once each semester. Appointments are available in-person, by phone or by video.

Currently enrolled students should use the Navigate360 website (<https://uwm.navigate.eab.com/>) to make an appointment with your assigned advisor or call (414) 229-4654 if you do not currently have an assigned Letters & Science advisor. Prospective students who haven't enrolled in classes yet should call (414) 229-7711 or email let-sci@uwm.edu.

Honors in the Major

Geography majors who have maintained at least a 3.0 GPA overall and a 3.5 GPA in all courses taken for the major, including a 3.5 GPA in all advanced courses in the major, are awarded the distinction 'Honors in the Major' when they graduate.

High Honors in the Major

Geography majors who have met the minimum stated above and achieved a 3.75 or higher GPA in all courses taken for the major are awarded the distinction 'High Honors in the Major' when they graduate.

College of Letters and Science Dean's Honor List

GPA of 3.750 or above, earned on a full-time student's GPA on 12 or more graded credits in a given semester.

Honors College Degree and Honors College Degree with Distinction

Granted to graduating seniors who complete Honors College requirements, as listed in the Honors College (<https://catalog.uwm.edu/honors-college/>) section of this site.

Commencement Honors

Students with a cumulative GPA of 3.500 or above, based on a minimum of 40 graded UWM credits earned prior to the final semester, will receive all-university commencement honors and be awarded the traditional gold cord at the December or May Honors Convocation. Please note that for honors calculation, the GPA is **not** rounded and is truncated at the third decimal (e.g., 3.499).

Final Honors

Earned on a minimum of 60 graded UWM credits: Cum Laude - 3.500 or above; Magna Cum Laude - 3.650 or above; Summa Cum Laude - 3.800 or above.