Geography

Overview and Contact Information
Geography is an integrated discipline that studies the relationships between people, places, society, and the environment. Mount Holyoke College geography majors and minors learn about the impacts of social, economic, environmental, and political processes that shape spaces and places, the science of earth systems, the human dimensions of global environmental and climate change, and the use of geographic information science (GIS) and remote sensing techniques to represent and analyze data and knowledge at different spatial scales.

Please note that the departments of Geology, Geography and Environmental Studies plan to launch a new department and a new major and minor. Details of the transition plan to the new major and minor are awaiting final approval, but current and matriculating students will remain eligible to complete the existing majors/minors in Geology, in Geography, and in Environmental Studies.

Contact Information
Jared Schwartzer, Chair
Debra LaBonte, Academic Department Coordinator
304 Clapp Laboratory
413-538-2278
https://www.mtholyoke.edu/academics/find-your-program/geography

Learning Goals
Students majoring/minoring in geography draw upon their individual interests and passions to chart unique paths through the discipline. Yet, within this diversity, students take courses that are informed by the following key learning goals:

• Understand and use geographic concepts of place, space, and scale to explore human-environment relations.
• Recognize the physical processes that shape the patterns of the earth’s surface, including landforms, climate, and ecosystems.
• Explore the many sub-disciplines of geography.
• Apply geographic methods, theories, and perspectives to critically tackle pressing societal questions.
• Articulate geographic research questions and demonstrate effective reading and writing skills.
• Apply mapping and geospatial technologies to analyze geographic data and solve geographic problems.
• Understand and utilize basic quantitative and qualitative research methods.

Faculty
This area of study is administered by the Department of Geology and Geography:
Michelle Markley, Professor of Geology, On Leave 2023-2024
Mark McMenamin, Professor of Geology
Thomas Millette, Director of the Geo-Processing Lab; Professor of Geography, Teaching Fall Only
Alan Werner, Professor of Geology, Teaching Fall Only
Serin Houston, Associate Professor of Geography and International Relations, On Leave 2023-2024
Marsha Allen, Assistant Professor of Earth Science
Dinko Hanaan Dinko, Assistant Professor of Geography
Phillip Campanile, Visiting Instructor in Geography
Eugenio Marcano, Manager of the Geo-Processing Lab; Instructor in Geology and Geography

Requirements for the Major
A minimum of 36 credits:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GEOG-105</td>
<td>World Regional Geography</td>
<td>4</td>
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<tr>
<td>GEOG-107</td>
<td>Introduction to the Physical Environment</td>
<td>4</td>
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<tr>
<td>or GEOL-107</td>
<td>Environmental Geology</td>
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<tr>
<td>GEOG-205</td>
<td>Mapping and Spatial Analysis</td>
<td>4</td>
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<tr>
<td>or GEOG-210</td>
<td>GIS for the Social Sciences and Humanities</td>
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<tr>
<td>Any four of the following 200-level thematic and regional courses:</td>
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<tr>
<td>GEOG-202</td>
<td>Cities in a Global Context</td>
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<td>GEOL-203</td>
<td>The Earth’s Surface</td>
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<tr>
<td>GEOG-204</td>
<td>Human Dimensions of Environmental Change</td>
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<td>GEOG-206</td>
<td>Political Geography</td>
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<td>GEOG-208</td>
<td>Global Movements: Migrations, Refugees and Diasporas</td>
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<tr>
<td>ENVST-210</td>
<td>Political Ecology</td>
<td></td>
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<tr>
<td>ENVST-216</td>
<td>Global Environmental Justice</td>
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<tr>
<td>GEOG-224</td>
<td>Atmosphere and Weather</td>
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<td>GEOG-230</td>
<td>Environmental Soil Science</td>
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<td>GEOG-295</td>
<td>Independent Study</td>
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<tr>
<td>Any two 300-level seminar courses in Geography.</td>
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<td>GEOG-304UP</td>
<td>Planning and the Environment: 'Urban Planning'</td>
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<td>GEOG-312</td>
<td>Seminar in Geography</td>
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<td>GEOG-313</td>
<td>Third World Development</td>
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<td>GEOG-319</td>
<td>Africa: Problems and Prospects</td>
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<td>GEOG-320</td>
<td>Research with Geospatial Technologies</td>
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<td>ENVST-321CP</td>
<td>Conference Courses in Environmental Studies: 'Political Economy of the Environment: Capitalism and Climate Change'</td>
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<tr>
<td>ENVST-321EQ</td>
<td>Conference Courses in Environmental Studies: 'Food Equity and Empowerment' Change'</td>
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<td>GEOG-328</td>
<td>Climate Migration</td>
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<td>GEOG-395</td>
<td>Independent Study</td>
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Total Credits 36

Additional Specifications
• Many geography courses are offered in alternate years. Students should consult the department when planning their major.
• Courses from other departments, the Five Colleges, and abroad may also apply toward the 300-level course requirement in the major.

Requirements for the Minor
A minimum of 20 credits:
**Course Offerings**

**GEOG-105 World Regional Geography**  
*Fall and Spring. Credits: 4*  
This course surveys the major geographic regions of the world in terms of environmental features and resource distributions, economic mainstays, population characteristics, cultural processes, social relationships, and patterns of urbanization and industrial growth. In addition to these topical foci, we use various sub-fields of geography to animate different regions. This approach provides a sense of depth while we also pursue a breadth of knowledge about the world.  
*Applies to requirement(s): Social Sciences; Multicultural Perspectives*  
P. Campanile

**GEOG-107 Introduction to the Physical Environment**  
*Not Scheduled for This Year. Credits: 4*  
A systematic introduction to the ecological processes operating on the surface of the earth, their spatial variation and their contribution to the spatial patterning of life on earth. The course stresses interactions among the earth’s energy balance, weather, ecological resources and human impacts on environmental systems.  
*Applies to requirement(s): Math Sciences*  
T. Millette

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**Additional Specifications**

- Many geography courses are offered in alternate years. Students should consult the department when planning their minor.

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**GEOG-202 Cities in a Global Context**  
*Fall. Credits: 4*  
Cities are dynamic landscapes informed by myriad economic, political, social, environmental, and cultural processes. This course delves into the forces of urbanization and examines how cities have been investigated, built, experienced, and lived in throughout history and around the globe. By accenting a geographic perspective and drawing upon an array of theoretical ideas and empirical examples, this class grapples with the fascinating complexities of the urban context.  
*Applies to requirement(s): Social Sciences; Multicultural Perspectives*  
P. Campanile

**GEOG-204 Human Dimensions of Environmental Change**  
*Not Scheduled for This Year. Credits: 4*  
Using regional case studies from across the world, this course examines some of the causes and consequences of human-induced environmental changes. The course explores the fundamental relationships and processes involved in human-environmental interactions; the various impacts that humans have had over time upon soils, water, flora, fauna, landforms, and the atmosphere; and possible alternative development strategies that could create a balance between human needs and environmental sustainability.  
*Applies to requirement(s): Social Sciences; Multicultural Perspectives*  
The department

**GEOG-205 Mapping and Spatial Analysis**  
*Fall. Credits: 4*  
Provides a comprehensive introduction to maps, including their design, compilation, and computer production. Introduces students to the principles of abstracting the Earth’s surface into spatial databases using GIS, remote sensing, and Global Positioning Satellites.  
*Applies to requirement(s): Meets No Distribution Requirement*  
T. Millette

**GEOG-206 Political Geography**  
*Fall and Spring. Credits: 4*  
Systemically studies political phenomena and their geographic expression, at a variety of spatial scales – national, regional, and international. Major themes include nation-state formation, boundary, territory, and ethnic issues, regional blocs and spheres of influence, and conflicts over access to and use of resources.  
*Applies to requirement(s): Social Sciences*  
K. Surprise

**GEOG-208 Global Movements: Migrations, Refugees and Diasporas**  
*Not Scheduled for This Year. Credits: 4*  
The voluntary and involuntary movement of people around the globe is the focus of this course on migrations, refugees, and diasporas. Questions of borders, nativism, transnationalism, the global economy, and legality thread through this course as we consider the many social, cultural, environmental, economic, and political factors shaping decisions to leave a home or homeland. Historical and contemporary case studies, compelling theoretical texts, and geographic perspectives on these topics collectively animate our discussions.  
*Applies to requirement(s): Social Sciences; Multicultural Perspectives*  
The department
GEOG-210 GIS for the Social Sciences and Humanities  
Spring. Credits: 4  
This course introduces the use of Geographic Information Systems (GIS) and other geospatial technologies in the social sciences and the humanities. The student will learn to collect, process, and analyze quantitative data within the spatial (geographic) context where they occur. Course content may include research topics from current faculty.  
Applies to requirement(s): Meets No Distribution Requirement  
E. Marcano  
Advisory: Proficiency with computers and quantitative data analysis

GEOG-223 Development Geography  
Spring. Credits: 4  
This course explores the major trends and changes in development theory and their bearings on development policy and practice, critically discussing concepts of development and the emergence and evolution of paradigms in development thinking. We will explore what and who drives (under)development, where (location and scales), and what can be done. The course integrates hands-on experiential learning through case studies and guest lectures to enable students to analyze what theoretical foundations informed past and current development thinking and their prospects and limits.  
Applies to requirement(s): Social Sciences  
Other Attribute(s): Speaking-Intensive, Writing-Intensive  
D. Dinko

GEOG-224 Atmosphere and Weather  
Not Scheduled for This Year. Credits: 4  
This course provides a detailed introduction to the earth’s atmosphere with particular emphasis on the troposphere extending from the surface to 10km in elevation. Topics include the earth’s solar energy budget, atmospheric pressure and wind systems, global and local meteorological processes, and weather forecasting. The class will make significant use of meteorological data and satellite imagery taken from NOAA’s National Weather Service to study seasonal weather patterns, rain and snow events, and catastrophic hurricanes.  
Applies to requirement(s): Math Sciences  
M. Allen  
Prereq: Any 100-level natural science course.  
Advisory: Students who have taken high school earth science but not a college-level natural science course are welcome to request instructor permission to enroll.

GEOG-230 Environmental Soil Science  
Spring. Credits: 4  
Introduction to the physical, chemical, and biological properties of soils and their relationship to environmental quality, agricultural production, and land management. This course will also describe the processes of origin and development of soils as natural entities and how they affect the different ecosystems where they are located. Some field work required.  
Applies to requirement(s): Meets No Distribution Requirement  
E. Marcano  
Prereq: Any 100 or 200 level science course or GEOG-107.

GEOG-241GR Topics in Geography: ‘Global Radical Geographic Imaginaries: 19th Century to Present’  
Spring. Credits: 4  
This survey of radical geographic thought highlights liberatory geographic imaginaries from across the globe from the past two centuries. Radical geographers have developed powerful critiques of capitalism, empire, and modernization. They have also reimagined places capable of supporting deeply democratic social formations. This course will examine the political, economic, and cultural geographical concerns embedded in these critiques and counter-proposals. Among them, we will study 19th century Euro-Asian anarchism, Marx’s late work on the “archaic commune,” state resistance in Asia, post-colonial nation building in Africa, and feminist re-imaginings of sex, gender, and domesticity.  
Applies to requirement(s): Social Sciences  
P. Campanile

GEOG-295 Independent Study  
Fall and Spring. Credits: 1 - 4  
The department  
Instructor permission required.

GEOG-304 Planning and the Environment  
GEOG-304UP Planning and the Environment: ‘Urban Planning’  
Fall. Credits: 4  
This course examines in detail the fabric of urban and suburban settlement and commerce in the pre and post WW II U.S. Field trips to the greater Springfield area are used to allow students to develop firsthand understanding of interactions between urban and suburban areas and to recognize the major changes to the human landscape driven by suburbanization and urban abandonment. This class will examine the section of Springfield slated for the MGM Casino Development.  
Applies to requirement(s): Social Sciences  
T. Millette  
Prereq: Any 200-level Geography course.

GEOG-312 Seminar in Geography  
These seminars present selected topics in geography that reflect contemporary problems, current geographical ideas, philosophical and methodological trends in geography, and/or the history and development of geographical thought.
GEOG-312NC Seminar: "The Nature of Cities"
Spring. Credits: 4
This course critically examines the past, present, and future of thinking about the city from an ecological point of view. For a century, urban ecologists have thought about the city as an ecosystem; it follows the laws of all natural systems. While illuminating, this naturalistic idea has obscured certain historical, social, and political economic forces of urbanization. This is evident today in efforts to make cities more "resilient" and "sustainable." By intersecting urban ecology, urban political economy, and environmental history, this course reassesses the prospects of the ecological city in light of contemporary environmental crisis. Examples will be from across the globe.
Applies to requirement(s): Social Sciences
Other Attribute(s): Speaking-Intensive, Writing-Intensive
P. Campanile
Restrictions: This course is open to juniors and seniors
Prereq: 4 credits in Geography or related social science course.

GEOG-313 Third World Development
Not Scheduled for This Year. Credits: 4
This course critically examines the past, present, and future of thinking about the city from an ecological point of view. For a century, urban ecologists have thought about the city as an ecosystem; it follows the laws of all natural systems. While illuminating, this naturalistic idea has obscured certain historical, social, and political economic forces of urbanization. This is evident today in efforts to make cities more "resilient" and "sustainable." By intersecting urban ecology, urban political economy, and environmental history, this course reassesses the prospects of the ecological city in light of contemporary environmental crisis. Examples will be from across the globe.
Applies to requirement(s): Social Sciences
Other Attribute(s): Speaking-Intensive, Writing-Intensive
P. Campanile
Restrictions: This course is open to juniors and seniors
Prereq: 4 credits in Geography or related social science course.

GEOG-314 China in the Global South
Spring. Credits: 4
China is at the heart of development in the 21st century. In other words, it is impossible to understand the twenty-first century without understanding China. But is China a partner or a neocolonial exploiter in the Global South? How can we make sense of China's current record of infrastructure lending in Africa or the recent uptick in China-Africa trade? What is the geography of China's economic statecraft in Africa? To provide some answers, we will explore the on-the-ground realities of China's increasingly complex engagement with developing countries in aid, trade, investment, agribusiness, and technology transfer. We will examine China's emerging role by focusing on the spatial economic statecraft and geostrategic politics of Chinese capital flow.
Applies to requirement(s): Social Sciences; Multicultural Perspectives
Other Attribute(s): Speaking-Intensive, Writing-Intensive
D. Dinko
Restrictions: This course is open to juniors and seniors
Prereq: 4 credits in Geography or a related 200-level social science course.

GEOG-319 Africa: Problems and Prospects
Not Scheduled for This Year. Credits: 4
This course intends to offer an interdisciplinary perspective on selected contemporary development problems in Africa south of the Sahara. Central to the course will be an examination of the social, economic, and political consequences of colonialism, the physical resource base and ecological crisis, agrarian systems and rural development, gender relations and development, urbanization and industrialization, and the problems and prospects of regional cooperation and integration.
Applies to requirement(s): Social Sciences; Multicultural Perspectives
Other Attribute(s): Speaking-Intensive
The department
Restrictions: This course is open to juniors and seniors
Prereq: 4 credits in a related 200-level social science course.

GEOG-320 Research with Geospatial Technologies
Not Scheduled for This Year. Credits: 4
Geographic Information Systems (GIS) and remote sensing are essential tools for geographic analysis in both the biophysical and social sciences. This course uses a semester-long project that includes field and laboratory instruction to allow students to develop hands-on skills with spatial data and analysis software. Students will be able to present potential employers with a portfolio containing examples of their ability to develop and execute a GIS/remote sensing application project.
Applies to requirement(s): Math Sciences
T. Millette
Prereq: GEOG-205 or GEOG-210.

GEOG-328 Climate Migration
Not Scheduled for This Year. Credits: 4
This seminar focuses on climate change-induced human migration from both theoretical and applied perspectives. It examines the predicted scope of this population movement and considers international instruments that could shape responses to this growing category of migrants. A set of contemporary case studies from around the world animate our investigation into what it means to adapt to an altered environment and inform our questions about responsibility for climate change. Throughout the semester, students will grapple with the complex environmental, economic, cultural, and political intersections of migration and Earth's changing climate system.
Applies to requirement(s): Social Sciences; Multicultural Perspectives
Other Attribute(s): Speaking-Intensive, Writing-Intensive
The department
Restrictions: This course is open to juniors and seniors
Prereq: 4 credits in a related 200-level social science course.
GEOG-331 Water, People, and Politics in the Anthropocene

Fall. Credits: 4

Water is not simply a natural biophysical element that flows neutrally through landscapes. In this course, we will focus on the political, ecological, and historical dimensions of human water use in a changing climate. Throughout the course, we will examine ways in which water crises are produced and play out at various scales, ranging from the macro (global) to the micro (household) and human body. We will begin by strengthening our foundational understanding of water resources and laws that affect distribution, quality, use, and sustainability. Then, we'll dig deeper into the complexities that link water, people, and politics. In the last weeks of the course, we'll work on applying these ideas to dissect real-world issues such as the Flint and the Jackson water crisis. We'll also think about how to harness the newest and best ideas to sustainably and inclusively meet societal and ecological water needs now and in the future.

Applies to requirement(s): Social Sciences
Other Attribute(s): Speaking-Intensive, Writing-Intensive

D. Dinko

Restrictions: This course is open to juniors and seniors

Prereq: One course in geography or one related social science course.

GEOG-395 Independent Study

Fall and Spring. Credits: 1 - 8

The department

Instructor permission required.