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 in Fall 2023 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 students who entered the College before Fall 2023 will at least remain eligible to complete the existing majors/minors in Geology, in Geography, and in Environmental Studies.

Contact Information
Michelle Markley, 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:

Steven Dunn, Professor of Geology, Teaching Spring Only
Michelle Markley, Professor of Geology
Mark McMenamin, Professor of Geology

Thomas Millette, Director of the Geo-Processing Lab; Professor of Geography, Teaching Fall Only
Alan Werner, Professor of Geology
Serin Houston, Associate Professor of Geography and International Relations
Marsha Allen, Assistant Professor of Earth Science
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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<tr>
<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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<tr>
<td>GEOG-206</td>
<td>Political Geography</td>
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<tr>
<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>
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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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<td>Any two of the following 300-level seminar courses:</td>
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<tr>
<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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<tr>
<td>GEOG-328</td>
<td>Climate Migration</td>
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<tr>
<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.

Requirements for the Minor
A minimum of 20 credits:
GEOG-328 Climate Migration 4
GEOG-395 Independent Study 4

Total Credits 20

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

Course Offerings

GEOG-105 World Regional Geography 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 S. Houston

GEOG-107 Introduction to the Physical Environment 4
Any three of the following 200-level thematic and regional courses: 12
GEOG-202 Cities in a Global Context 4
GEOL-203 The Earth’s Surface 4
GEOG-204 Human Dimensions of Environmental Change 4
GEOG-206 Political Geography 4
GEOG-208 Global Movements: Migrations, Refugees and Diasporas 4
ENVST-210 Political Ecology 4
ENVST-216 Global Environmental Justice 4
GEOG-224 Atmosphere and Weather 4
GEOG-230 Environmental Soil Science 4
GEOG-295 Independent Study 4

Any one of the following 300-level courses: 4
GEOG-304UP Planning and the Environment: ‘Urban Planning’ 4
GEOG-312 Seminar in Geography 4
GEOG-313 Third World Development 4
GEOG-319 Africa: Problems and Prospects 4
GEOG-320 Research with Geospatial Technologies 4
ENVST-321CP Conference Courses in Environmental Studies: ‘Political Economy of the Environment: Capitalism and Climate Change’ 4
ENVST-321EQ Conference Courses in Environmental Studies: ‘Food Equity and Empowerment’ Change’ 4
GEOG-328 Climate Migration 4
GEOG-395 Independent Study 4

GEOG-202 Cities in a Global Context 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 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 S. Houston

GEOG-204 Human Dimensions of Environmental Change 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 4
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 4
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 4
Fall. 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 S. Houston
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
Coreq: GEOG-210L.
Advisory: Proficiency with computers and quantitative data analysis

GEOG-224 Atmosphere and Weather
Fall. 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
Fall. 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-241GC Topics in Geography: Gender, Intersectionality, and Climate Change
Spring. Credits: 4
This course examines the gendered causes and consequences of climate change through a feminist and intersectional lens. Using empirical case studies, we will investigate how lived experience and knowledge of climate change is shaped by multiple axes of social identity (e.g., gender, race, sexuality, ethnicity, class) and interrogate how prevailing notions of ‘masculinity’ and ‘femininity’ influence climate mitigation and adaptation processes across a variety of locations, scales, and contexts. As we strive to uncover the epistemological roots of the discourses that frame gender and climate politics, we will also consider how alternative ways of being, knowing, and acting challenge and transform conventional approaches to climate science and policymaking.
Applies to requirement(s): Social Sciences
M. Bollman

GEOG-241RE Topics in Geography: ‘Geographies of Renewable Energy Transition’
Spring. Credits: 4
This course explores the variety of ways renewable energy transitions are imagined, planned, implemented, and contested throughout the world. Through empirical case studies, we examine how renewable energies offer new possibilities for restructuring societies but can also perpetuate social practices and worldviews that sustain relations of inequality. We draw on the geographic concepts of landscape, scaling, and spatial embeddedness to investigate why energy transition dynamics vary across space, and consider how cultural frameworks influence climate policies and individual energy choices.
Applies to requirement(s): Social Sciences
M. Bollman

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-312QM Seminar: ‘Queer Mapping’
Spring. Credits: 4
The ability for LGBTQ+ people to claim, develop, and sustain spaces has been a highly contentious process. Due to shifts in political ideologies, cultural mores, and communications, media, and technology, the ability to record the existence of LGBTQ+ places has grown but only in certain locations for certain groups, especially in the US. Reading from queer, feminist, and trans geographic theory and methods, how can we make use of mapping techniques to render LGBTQ+ publics? What are the ethical concerns of LGBTQ+ mapping projects? Drawing on basic GIS techniques to create our own queer maps, how do may we theorize the present and future of queer and trans public and private space?
Applies to requirement(s): Social Sciences; Multicultural Perspectives
Other Attribute(s): Speaking-Intensive, Writing-Intensive
J. Gieseke
Restrictions: This course is open to juniors and seniors
Prereq: 4 credits in a related 200-level social science course.
GEOG-313 Third World Development
Not Scheduled for This Year. Credits: 4
Offers an interdisciplinary perspective on social, economic, and political features of contemporary development in Africa, Asia, and Latin America, regions referred to as the Third World or the South, and provides an introduction to theoretical origins and definitions of economic growth, development, and underdevelopment. It then addresses more specific aspects of development such as trends in population growth, migration, and urbanization; agrarian change; livelihood strategies and aspects of social welfare such as health, education, and shelter; poverty and the environment; and social justice. The latter part of the course draws extensively on selected case studies.
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-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
Spring. 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
S. Houston, B. Wheeler
Restrictions: This course is open to juniors and seniors
Prereq: 4 credits in a related 200-level social science course

GEOG-395 Independent Study
Fall and Spring. Credits: 1 - 8
The department
Instructor permission required.