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.

Contact Information
Steven Dunn, Chair
Debra LaBonte, Academic Department Coordinator
304 Clapp Laboratory
413-538-2278
https://www.mtholyoke.edu/acad/geography

Faculty
This area of study is administered by the Department of Geology and Geography:
Steven Dunn, Professor of Geology
Girma Kebbede, Professor of Geography, Teaching Fall Only
Michelle Markley, Professor of Geology
Mark McMenamin, Professor of Geology
Thomas Millette, Professor of Geography; Director of the Geo-Processing Lab, Teaching Spring Only
Alan Werner, Professor of Geology, Teaching Spring Only
Serin Houston, Assistant Professor of Geography and International Relations
J. Michael Rhodes, Five College Professor of Geosciences
Samuel Tuttle, Visiting Assistant Professor of Data Science
Kinuyo Kanamaru, Visiting Lecturer in Geology
Thomas Rowland, Visiting Lecturer in Geography
Jacob Chamberlain, Visiting Instructor in Geography
Eugenio Marcano, Manager of the Geo-Processing Lab; Instructor in Geology and Geography
Brittany Wheeler, Visiting Instructor in Geography

Requirements for the Major
A minimum of 36 credits:

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<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>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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Any four of the following 200-level thematic and regional courses: 16
- GEOG-202  Cities in a Global Context
- GEOG-203  The Earth’s Surface
- GEOG-204  Human Dimensions of Environmental Change
- GEOG-206  Political Geography
- GEOG-208  Global Movements: Migrations, Refugees and Diasporas
- ENVST-210  Political Ecology
- GEOG-213  Sustainable Cities
- GEOG-217  The African Environments
- GEOG-224  Atmosphere and Weather
- GEOG-230  Environmental Soil Science
- GEOL-247  Environmental Modeling & Statistics
- GEOG-295  Independent Study

Any two of the following 300-level seminar courses: 8
- GEOG-304UP  Planning and the Environment: ‘Urban Planning’
- GEOG-313  Third World Development
- GEOG-319  Africa: Problems and Prospects
- GEOG-320  Research with Geospatial Technologies
- GEOG-325  Conflict and Displacement in Africa
- GEOG-328  Climate Migration
- GEOG-395  Independent Study

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:

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<tr>
<td>GEOG-105</td>
<td>World Regional Geography</td>
<td>4</td>
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</table>
| Any three of the following 200-level thematic and regional courses: 12
- GEOG-202  Cities in a Global Context
- GEOG-203  The Earth’s Surface
- GEOG-204  Human Dimensions of Environmental Change
- GEOG-206  Political Geography
- GEOG-208  Global Movements: Migrations, Refugees and Diasporas
- ENVST-210  Political Ecology
- GEOG-213  Sustainable Cities
- GEOG-217  The African Environments
- GEOG-224  Atmosphere and Weather
- GEOG-230  Environmental Soil Science
- GEOG-295  Independent Study

Any one of the following 300-level courses: 4
- GEOG-304UP  Planning and the Environment: ‘Urban Planning’
- GEOG-313  Third World Development
- GEOG-319  Africa: Problems and Prospects
- GEOG-320  Research with Geospatial Technologies
- GEOG-325  Conflict and Displacement in Africa
Course Offerings

GEOG-105 World Regional Geography
Fall. 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
S. Houston

GEOG-107 Introduction to the Physical Environment
Fall. 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
J. Rowland

GEOG-202 Cities in a Global Context
Spring. 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
S. Houston

GEOG-204 Human Dimensions of Environmental Change
Fall. 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
G. Kebbede

GEOG-205 Mapping and Spatial Analysis
Spring. 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
Spring. Credits: 4
Systematically 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
J. Chamberlain

GEOG-208 Global Movements: Migrations, Refugees and Diasporas
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-213 Sustainable Cities
Not Scheduled for This Year. Credits: 4
Based on present estimates, for the first time in human history, more people now live in urban than rural areas, and population growth projections for the next century indicate that most growth will take place in urban areas. Given this context, this course examines the social, economic, and environmental dimensions of urban sustainability. Topics explored in the course include urban and ecological systems, air and water quality, green design, energy and transportation systems, demographic trends, climate change impacts, and the role of technology in promoting urban sustainability.

Applies to requirement(s): Social Sciences
Other Attribute(s): Speaking-Intensive
T. Millette

GEOG-217 The African Environments
Not Scheduled for This Year. Credits: 4
The course provides an integrated analysis of biogeography, environmental change, and hydrology within each of the biomes found in the African continent: forest, savanna, desert, coast, wetland, mountain, and Mediterranean environments. It also discusses the impact and significance of human activity on African environments by exploring debates about land degradation, climate change, biodiversity and depletion, and conservation and development.

Applies to requirement(s): Social Sciences; Multicultural Perspectives
G. Kebbede
GEOG-224 Atmosphere and Weather
Spring. 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
T. Millette
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-241 Topics in Geography
GEOG-241WH Topics in Geography: 'Water and Historical Settlements in India'
Spring. Credits: 4
The objective of the course is to familiarize students with the complex intertwining of political, religious, social and ecological factors that framed the evolution of historic regions in South Asia. By exploring the cultural landscape of Ellora-Khulabad-Daulatabad in Maharashtra, India, they will be exposed to diverse methodological approaches such as Historical Anthropology, Comparative Religion and Human Geography, and will be encouraged to raise questions regarding the inter-disciplinary perspective through which such sites may be approached. The course will explore the interplay between historic practice and contemporary development paradigms, raising questions about current water scarcity that could impact many similar sites.
Crosslisted as: ASIAN-211WH
Applies to requirement(s): Humanities; Multicultural Perspectives
Y. Mubayi

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'
Not Scheduled for This Year. 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-313 Third World Development
Fall. 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
G. Kebbede
Restrictions: This course is open to juniors and seniors
Prereq: One course in geography or one related social sciences 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
G. Kebbede
Restrictions: This course is open to juniors and seniors
Prereq: One course in geography or one related social sciences 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-325 Conflict and Displacement in Africa
Not Scheduled for This Year. Credits: 4
This course provides an analytical approach to the study of civil/armed conflicts and displacement in post-independent Africa. Using cases from West Africa, Horn of Africa, and the Great Lake region, the course examines geographic, political and economic contexts in which armed conflicts occur by identifying and evaluating competing explanations of the underpinnings of civil conflicts. It analyzes the role of some of the widely debated features of Africa’s civil conflicts, including systems of governance, impact of natural resources, questions of sovereignty and self-determination, construction and manipulation of ethnic/cultural identities, impact of religion, and regional inequalities.
Applies to requirement(s): Social Sciences; Multicultural Perspectives
Other Attribute(s): Speaking-Intensive
G. Kebbede
Restrictions: This course is open to juniors and seniors

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
Restrictions: This course is open to juniors and seniors
Prereq: 4 credits in a related 200-level social science course

GEOG-342 Seminar in Geography
GEOG-395 Independent Study
Fall and Spring. Credits: 1 - 8
The department
Instructor permission required.

GEOG-399 Getting Ahead in Geology and Geography
Not Scheduled for This Year. Credits: 1
This course provides mentoring for geology and geography majors as they pursue internships, summer jobs, independent research, graduate study, and careers. Experiences include: resume and communication workshops; self-reflection and sharing opportunities for students returning from internships, work experiences, and semesters abroad; guidance on preparing for, selecting, and applying to graduate school; and unconditional support for career exploration.
Crosslisted as: GEOL-399
Applies to requirement(s): Meets No Distribution Requirement
M. Markley
Restrictions: This course is limited to Geography and Geology majors and minors
Notes: Repeatable. Credit/no credit grading. Course meets on Fridays after Earth Adventures