

## Fall 2017 Geography Courses

<p>GEOGRAPH 102 <b>Diversity, Sustainability &amp; Globalization: Introduction to Human Geography</b></p>	<p>MoWeFr 11:15 - 12:05</p>	<p>Applegate</p>	<p>A wide-ranging introduction to the ways people shape the world they live in. We will study the themes and concepts of human geography through the current issues and large questions which guide them. Lectures and reading will focus on the geographic aspects of cultural diversity, population issues, states vs. nations, the global economy, development, urbanization and the human transformation of the earth. We will cover major subdivisions of human geography including cultural geography, population geography, economic geography, social geography, urban geography and political geography. (Gen.Ed. SB, G)</p>
<p>GEOGRAPH 110 <b>Global Environmental Change</b></p>	<p>TuTh 4:00- 5:15</p>	<p>Staff</p>	<p>The natural relationships between the atmosphere, hydrosphere, biosphere, and lithosphere; human impact on the natural environment. Global environmental issues: global warming, sea-level rise, and ozone depletion in the stratosphere. Global changes of the past also studied to give perspective to forecasted changes. Includes writing exercises. (Gen.Ed. PS)</p>
<p>GEOGRAPH 220 <b>World Regional Geography</b></p>	<p>TuTh 2:30 - 3:45</p>	<p>Toby Applegate</p>	<p>Survey of world physical and human geography, highlighting regional diversity and variation in globalization processes and outcomes. Introduces geographical theories, concepts, and methods while exploring nine major world regions. (GenEd SB, G)</p>
<p>GEOGRAPH 352 <b>Computer Mapping</b></p>	<p>TuTh 1:00 - 2:15</p>	<p>Donald Sluter</p>	<p>Mapping projects through the use of software mapping packages. Students select their own final projects.</p>
<p>GEOGRAPH 354 <b>Climatology</b></p>	<p>MoWeFr 9:05 - 9:55</p>	<p>Michael Rawlins</p>	<p>Fundamentals of the earth/atmosphere energy balance, the hydrologic cycle, atmospheric motion, and the general circulation of the atmosphere. Regional and local climates. How climate affects people's activities and how people influence climate. Climate change, its causes, and its effects. Prerequisite: introductory course in weather and climate (e.g., GEO-SCI 100 or ASTRON 105)</p>
<p>GEOGRAPH 360 <b>Economic Geography</b></p>	<p>TuTh 1:00- 2:15</p>	<p>Toby Applegate</p>	<p>Economic Geography is the study of how humans struggle to live on our planet. The course examines economic activities in space, place, and location through three lens: globalization, unequal development, and sustainability. Students will learn not just the "why" of economics, but how "where" complicates understanding the economy.</p>
<p>GEOGRAPH 370 <b>Urban Geography</b></p>	<p>MWF 10:10- 11:00</p>	<p>Piper Gaubatz</p>	<p>Survey of urban geographical analysis and the development of the world's cities. Theoretical and methodological approaches of urban geography used to explore cities as they shape and are shaped by their social, cultural, economic, and physical contexts. Topics include pre-industrial cities, industrial cities, the evolution of American cities, and contemporary urban issues in both developed and developing countries. (Gen.Ed. SB, U)</p>
<p>GEOGRAPH 397G <b>Introduction to GIS</b></p>	<p>Th 11:30- 12:45; Lab 2:30- 5:30</p>	<p>Forrest Bowlick</p>	<p>This course introduces fundamental concepts and methods of geographic information system. Emphasis on developing skills using GIS to solve typical spatial problems in the geosciences and environmental sciences.</p>

<p>GEOGRAPH 397WG <b>Water Geographies</b></p>	<p>MW 2:30-3:45</p>	<p>Eve Vogel</p>	<p>Water Geographies focuses on current issues related to water, and individual and group action that can make a difference to improve water sustainability. It is a service learning class. We will read several journalistic books as well as news articles to explore current issues. We will think about the ways that people cause and face conflict over water, and how they strive to improve sustainability. Focus issues will include: freshwater sustainability and development; bottled water; dams, energy &amp; rivers; marine fisheries; and the Connecticut River. One third of the grade is for student-led action projects. Based on their own interests, skills, and passions, students will plan, carry out and reflect upon individual projects to advance water sustainability.</p>
<p>GEOGRAPH 426 <b>Remote Sensing &amp; Image Interpretation</b></p>	<p>TuTh 10:00 - 11:15A M; Lab Tu 2:30-4:30</p>	<p>Qian Yu</p>	<p>This course introduces the principles of digital image analysis for interpreting remotely sensed data for environmental, resource and urban studies. Emphasis will be given to the processing and information extraction from optical and thermal imagery.</p>
<p>GEOGRAPH 440 <b>Political Geography</b></p>	<p>TuTh 11:30-12:45</p>	<p>Eve Vogel</p>	<p>An analysis of how and why we organize the world into political territories and into geographically based political alliances and systems, and the consequences of this organization for people and environments. The first half of the course focuses on the practice of organizing the world into bordered political units, emphasizing especially the history and consequences of the nation-state system. The second half of the class focuses on the politics of development and the globalizing economy. Throughout the course, case studies will pay particular attention to issues of global inequality and environmental challenges.</p>
<p>GEOGRAPH 486 <b>Field Methods in Geography</b></p>	<p>MWF 1:25-2:15</p>	<p>Piper Gaubatz</p>	<p>This class has two goals: introduce students to research design and field research methods in geography, and explore ways of integrating knowledge gained across a college education, from general courses to more specialized departmental courses, in approaching analysis of the "real-world". We will focus particularly on field techniques which are most effectively learned on the ground, such as analytical observation, mapping, photography and interviewing, and the linkages between those methodologies and context/background research. Students will have opportunities both to work in groups and to design and carry out their own research projects. This course satisfies the Integrative Experience requirement for BA-Geog and BS-Geog majors.</p>
<p>GEOGRAPH 497C <b>Climate Crisis</b></p>	<p>TuTh 10:00 - 11:15</p>	<p>Stan Stevens</p>	<p>This course is an introduction to the political ecology of climate change, response, and justice. It provides an opportunity to engage in critical reading and discussion about the great moral, political, economic, and environmental challenge of our time. We will explore climate crisis narratives; mitigation, adaptation, and climate justice issues; policy and social/economic reform debates; and climate activism. Reading will range from IPCC reports to work by Bill McKibben, Naomi Klein, and Indigenous activists.</p>

## Courses to fulfill the Quantitative Analysis requirement for geography majors

SOCIOLOGY 212 <b>Elementary Statistics</b>	MW 4:00 5:15	David Cort	Introduction to basic statistics employed in the sociological analyses. Descriptive statistics, probability, sampling distributions, inferential statistics, tests of significance, contingency tables, measures of correlation, etc. (Gen.Ed. R2)
STATISTIC 240 <b>Intro To Statistics</b>	TuTh 11:30 - 12:45	Joanna Jeneralczuk	Basics of probability, random variables, binomial and normal distributions, central limit theorem, hypothesis testing, and simple linear regression. (Gen.Ed. R2)
RES-ECON 212 <b>Intro to Statistics for Social Science</b>	Mo 4:00 5:15	Wayne-Roy Gayle	Introduction to basic statistical methods used to collect, summarize, and analyze numerical data. Emphasis on application to decision making; examples from the social sciences and business. Topics include: common statistical notation, elementary probability theory, sampling, descriptive statistics, statistical estimation and hypothesis testing. Basic algebra and familiarity with computer and internet necessary. (Gen.Ed. R1, R2). This is a blended class. Lectures will be posted online. Students will complete online homework and will then attend a team based learning (TBL) section where they will work in teams on exercises that reinforce and apply the concepts from the online lectures and homework exercises. The online lectures and homework will be completed before attending the TBL section. NOTE: TBL sections also offered Tu 10-11:15, Tu 2:30-3:45, We 4-5:15, Th 10-11:15, or Th 2:30-3:45.

## Upper-division Cognate Courses (may have enrollment limits/conditions/prerequisites)

ANTHRO 208 <b>Human Ecology</b>	MWF 11:15- 12:05	Thomas Leatherman	The study of human/environmental interactions. Emphasis on biological and cultural responses by contemporary human groups to pervasive environmental problems. Examples from mountains, grasslands, deserts, and tropical forests. (Gen.Ed. SB, G)
ANTHRO 270 <b>North American Indians</b>	TuTh 2:30- 3:45	Jean Forward	Survey of the indigenous people of America north of Mexico; their regional variations and adaptations, their relationship to each other, and the changes taking place in their lifeways. (Gen.Ed. SB, U)
BIOLOGY 287 <b>Intro Ecology</b>	TuTh 1:00 - 2:15	Christiane Healey	The scope of ecology; how organisms cope with environmental challenges; population dynamics; species interactions of competition, predation, and mutualism; community ecology; biodiversity; biogeochemical cycles; selected topics in evolutionary and behavioral ecology. Basic concepts related to practical applications in harvesting, biological control, conservation, pollution, and global change.
BIOLOGY 426 <b>New England Flora</b>	MoWe 12:20 - 1:35	Tristram Seidler	Learn the vascular plants of the region in their natural habitats through field trips and in the laboratory with the use of botanical keys and manuals. Field experience will include some collecting and pressing of specimens. The class also visits the herbarium and greenhouses. Recognition of certain plant families and familiarity with terminology will be gained. Prerequisite: Introductory biology. or consent of instructor.

ECON 308 <b>Political Economy of the Environment</b>	TuTh 2:30 - 3:20	James Boyce	Application of the theories of political economy to environmental problems and issues. Topics include regulatory and market approaches to pollution and natural resource depletion; cost-benefit analysis and its economic and political foundations; and case studies of specific environmental problems such as acid rain, deforestation, and global warming. Prerequisite: RES-ECON 102 or ECON 103. Open only to Econ, Res-Econ, and STPEC majors until juniors have registered.
ENVIRSCI 213 <b>Intro to Environmental Policy</b>	TuTh 11:30 - 12:45PM	Anita Milman	An overview of the environmental policy process covering the roles of major players at community, state, and federal levels, and emphasizing the role of environmental science. Covers the major environmental laws and recent amendments, the role of policy analysis, and international environmental policy.
HISTORY 260 <b>Power &amp; Violence in South Africa</b>	MoWeFr 11:15 - 12:05PM	John Higginson	The social origins and historic evolution of the present situation in South Africa; the course disentangles apartheid's causes from its description. (Gen Ed. HS, G)
HISTORY 359 <b>Modern Brazil</b>	MoWe 2:30PM - 3:45PM	Joel Wolfe	This course will examine modern Brazil from 1800 to the present, concentrating on the making of the nation given its massive geographical size and diverse population. Topics studied include Brazil's status as the world's largest slave holding society in the nineteenth century, and twentieth-century attempts to establish democracy.
HISTORY 391N <b>Conservation of Nature</b>	MWF 10:10- 11:00	David Glassberg	This course will explore the history of various efforts around the world to conserve nature and culture. Students will learn about the history of the Conservation Movement in North America, but also to think broadly about what the idea of conservation means in archeology, folklore, historic preservation, and the arts, especially in a time of globalization and climate change.
HISTORY 394EI <b>Human Rights and Energy in Eurasia</b>	TuTh 1:00PM - 2:15PM	Audrey Altstadt	This course examines the politics and impact of energy resources on human rights and democratization in th Caspian Basin in historical and current strategic context
LEGAL 432 <b>Environmental Justice</b>	Tu 4:00 - 6:00	A Wing	This course examines the U.S. environmental justice (EJ) movement. Central to our study is: environmental degradation and pollution and their relationship to racism and poverty; as well as globalization's effect on international EJ. We critically analyze multiparty disputes considering the role of grassroots activism, the law, and ADR in the redress of environmental injustice. Coursework relies on relevant scholarship, case studies, and a site visit. Non Majors by Instructor Consent at <a href="mailto:lwing@legal.umass.edu">lwing@legal.umass.edu</a>

<p>MIDEAST 290C <b>Environmental History of the Middle East</b></p>	<p>MW2:30-3:45</p>	<p>Malissa Taylor</p>	<p>The effects of global warming and its alarming potential to remake our planet have caused historians and other social scientists to think more carefully about how the environment has influenced the course of human history. For many scholars in this relatively new field of inquiry, the environment has played an underappreciated role in everything from economic patterns to political crises; and from cultural diffusion to nation building. In this class, we will examine the often neglected role of nature in the history of the Middle East. Frequently, religion and culture are presented as the crucial forces driving events in this region. Environmental history presents a very different analysis of change and continuity in the Middle East and North Africa and can enrich our understanding of what factors have shaped the region. The course is an introduction to the discipline of history and fulfills the General Education requirement in Historical Studies. As such, it emphasizes change over time and examines who or what is responsible for change. Students will explore how arguments about the importance of the environment make use of newly discovered primary sources as well as sources known to the field that have received innovative new readings. (Gen. Ed. HS, G)</p>
<p>NRC 297R <b>Renewable Energy &amp; Sustainability</b></p>	<p>TuTh 10:00-11:15</p>	<p>Alison Bates</p>	<p>This course will introduce students to major themes of renewable energy systems. Students will analyze alternative energy solutions for a sustainable future. Emphasis will be on the different forms of renewable energy, within the context of the existing energy mix, energy policy, resource potential, and institutional opportunities and barriers. We will explore renewable energy potential and solutions through textbook and supplemental readings, current event briefings, group work and activities. The culmination of the course is a group research project to evaluate strategies and envision creative solutions.</p>
<p>POLISCI 343 <b>Gov &amp; Politics of East Africa</b></p>	<p>TuTh 2:30--3:45</p>	<p>Carlene Edie</p>	<p>Comparative analysis of the politics of change in Tanzania and Kenya. Economic dependency and underdevelopment; decolonization and liberation; ideology and practice; democratization and economic liberalization. Emphasis on interaction between domestic and external politics. Prerequisite: upper-division standing, POLISCI 111 or consent of instructor.</p>
<p>SUSTCOMM 205 <b>Dynamics of Human Habitation</b></p>	<p>TuTh 11:30 - 12:45</p>	<p>Michael DiPasquale</p>	<p>How the built environment is shaped by humans. The forces that go into developing human settlements, how these environments change, how different groups experience the environment, and how environmental designers work within this context. (Gen.Ed. I, U)</p>