

Summer 2021 courses in Geography and Geology at the University of Massachusetts Amherst!

The Department of Geosciences at the University of Massachusetts Amherst is offering a number of courses in geography and geology in both summer sessions in 2020. All classes are online!

Summer I classes start May 17th; summer II classes start July 6th.

For more information, including cost and how to enroll, please visit the links below.

Diversity, Globalization, and Sustainability: Introduction to Human Geography (GEOGRAPH 102)

4 Credits

Gen.Ed. SB, DG

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.

- Online Summer I: <https://www.umass.edu/uww/class/summer-2021/86769/diversity-globalization-and-sustainability-introduction-to-human-geography>

Intro Oceanography (GEOLOGY 103)

4 Credits

Gen.Ed. PS

The natural processes of the ocean, including earthquakes and volcanoes, the hydrologic cycle and weather, ocean circulation and the global energy balance, the carbon cycle and productivity, biodiversity and marine food webs, coastal dynamics. Also, global warming, sea-level rise, environmental degradation and the ocean system response to human activity and global change. Interactive class sessions, with considerable participation by students in problem solving, discussions, and demonstrations. Exams and grades based on teamwork as well as on individual performance. Students needing or wanting a laboratory component may register for GEO-SCI 131.

- Online Session I: <https://www.umass.edu/uww/class/summer-2021/86973/intro-oceanography>

Global Environmental Change (GEOGRAPH 110)

4 Credits

Gen.Ed. PS

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.

- Online Summer I: <https://www.umass.edu/uww/class/summer-2021/86770/global-environment-change>

Geography of US and Canada (GEOGRAPH 200)

4 Credits

Gen. Ed. SB, DU

This course provides a survey of the geography of US and Canada, starting with core integrative themes and methods of analysis, and then moving into a region-by-region overview. Special emphasis will be on historical development, environmental change and sustainability, and the diversity of peoples and cultures and their relationships with landscapes and each other. Short of literally traveling the continent, the class aims to immerse you in the images, sounds, data, and experiences of places, regions, and people's lives, so they come to life. Every week you will have at least one movie and/or Google Earth exercise that virtually transports you to a new location of study. You'll take different perspectives, try out new skills, dive into data, and think critically. Most weeks you will write reflectively about a movie, Google Earth exercise, and/or experience.

- Online Session II: <https://www.umass.edu/uww/class/summer-2021/87198/geography-of-us-and-canada>

World Regional Geography (GEOGRAPH 220)

4 Credits

GenEd SB, DG

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.

- Online Session I: <https://www.umass.edu/uww/class/summer-2021/87632/world-regional-geography>

Seminar- Geographies of Climate Justice (GEOGRAPH 393C)

3 Credits

Climate change is one of the greatest challenges facing the planet, and it is intimately connected to uneven and inequitable social, political, economic and environmental geographies. In this course we explore climate justice in relation to climate science including greenhouse gas emissions and ongoing and likely future impacts; differential experiences and narratives of climate change; the ways that climate solutions may reinforce or improve social and economic

difference and marginalization; more-than-human geographies of climate change; and possibilities for democratic and just responses. Students will leave this course with a broader understanding of the necessity and practice of climate justice.

- Online Session II: <https://www.umass.edu/uww/class/summer-2021/87635/seminar--geographies-of-climate-justice>

Seminar- Diverse Community Economies (GEOGRAPH 393D)

3 Credits

This course considers different ways of thinking about economic activity that can help us address the global economic, environmental, and equity crises we are facing. We will broaden our concept of the economy to include new visions of economic development, and look at economic experiments from a hopeful and experimental perspective as we seek a more sustainable and socially just approach toward economic activity.

- Online Session I: <https://www.umass.edu/uww/class/summer-2021/87634/seminar--diverse-community-economies>

Special Topics- Introduction to GIS (GEOGRAPH 593G)

4 Credits

- Online Session I: <https://www.umass.edu/uww/class/summer-2021/87133/special-topics--introduction-to-gis>
- Online Session II: <https://www.umass.edu/uww/class/summer-2021/87650/special-topics--introduction-to-gis>

Seminar- GIS Programming (GEOGRAPH 691P)

3 Credits

This course will explore programming methods and applications in geographic information science. Basic automation methods of repetitive or complex tasks using Model Builder and Python scripting will be explored through the lens of spatial thinking and computational thinking. Fundamentals of Python will also be explored for use inside and outside of the GIS environment.

- Online session I: <https://www.umass.edu/uww/class/summer-2021/87651/seminar--gis-programming>