# UMBC Graduate Programs in Geography and Environmental Systems

The **Department of Geography and Environmental Systems** (GES) at the University of Maryland, Baltimore County (UMBC) is a multi-disciplinary department with an emphasis on examining the dynamic relationship between social and natural processes. GES recognizes that human-environment relationships encompass a wide range of political, social, cultural, economic, chemical, biological, economic, and atmospheric phenomena, and we are committed to integrative research and graduate training that reflects the current complexity of environmental and social issues today.

Our faculty members maintain active research and teaching agendas related to all these areas. We practice a broad range of methodological techniques that include field and laboratory studies, community geography, ethnography, interviews, spatial statistics, critical GIS, remote sensing, modeling, historical research, and document analysis. Our research seeks to contribute to cutting edge debates across the natural and social sciences, as well as inform policy through our empirical findings. Our program of graduate study is designed to train graduate students aligned with these same goals.

## A hallmark of the Department of Geography & Environmental Systems is its broadly integrative nature, drawing on the expertise of faculty with diverse backgrounds but with a common mission.

GES offers MS and funded Ph.D. graduate degrees. Both non-thesis and thesis MS options are available. The application deadline for Fall admission to our graduate program is February 1. Applications can be completed online through the UMBC Graduate School: https://gradschool.umbc.edu/admissions/apply

**Environmental Systems**
- Water Resources
- Geomorphology
- Conservation
- Ecosystem Science
- Landscape Ecology
- Atmospheric Science
- Urban Ecology

**Critical Human Geography**
- Political Ecology & Environmental Justice
- Black & Latinx Geographies
- Historical Geography
- Climate & Conservation Policy
- Digital Geographies
- Migration Geographies

**Geographic Information Science**
- Critical GIS
- Environmental Modeling
- Remote Sensing & Land Use/Cover Change
- Community Cartography
- Big Spatial Data and Advanced Geospatial Analysis

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**What is graduate study at UMBC like?** Graduate students at UMBC form a small but collegial and dynamic group. All students receive training in a common set of core courses inclusive of guiding theories of human geography, physical geography, and environmental science. Students receive training on research methods and techniques and the art of proposal writing. Faculty provide mentorship to guide students' scholarly and professional development.

**What kind of financial support do students receive?** Accepted doctoral students receive 4-year teaching assistantships providing tuition remission, a monthly salary, and health insurance. Many students earn additional support through faculty research grants, ranging from the National Science Foundation to the Environmental Protection Agency and the US Forest Service. GES provides students with dedicated office and lab space.

Master's students interested in community-led responses to urban ecosystems may apply for funding through the Interdisciplinary Consortium for Applied Research in the Environment (ICARE) program (icare.umbc.edu).

**What other opportunities are available?** In addition to financial support, there are several opportunities for research collaborations through partnerships established with our Department.

- Faculty have established international research programs in Costa Rica, Ecuador, and China.
- UMBC is the field headquarters of the Baltimore Ecosystem Study, one of only two NSF Urban Long-term Ecological Research Sites in the country.
- The Center for Urban Environmental Research and Education (CUERE) is located at UMBC. CUERE is focused on the environmental consequences of social and environmental transformations associated with urban development.
- Geography at UMBC has a partnership with NASA's Goddard Earth Sciences and Technology Center, and the Joint Center for Earth Systems Technology (JCET).
- Host to the U.S Geological Survey Water Science Center.

**What kinds of things do graduate students do after graduating?**

- **Sam Dupre** (Ph.D.), Survey Statistician at the U.S. Census Bureau. *Coffee Leaf Rust in Eastern Guatemala, small holder response following a climate driven disease outbreak.*
- **Travis Lageman** (Master's), Environmental Policy Analyst at US Environmental Protection Agency (EPA). *Defining Baltimore's Greenspace-Health Link in the Context of Redlining*.
- **Clare Maffei** (Master's), Bee Taxonomist and Pollinator Biologist at the Northeast Regional Conservation Needs Grant Program. *Relationships between Vegetation and Pollinator Communities in Established Meadows in Agricultural Landscape.*
- **Jared Margulies** (Ph.D.), Assistant Professor of Geography at the University of Alabama. *Unruly Animals: multispecies politics and the governing of wildlife space.*
- **Laura Merner** (Ph.D.), Lead Science Hub for Climate Litigation at Union of Concerned Scientists. *Power and knowledge: Flood hazard in the coalfields of southern West Virginia*.
- **Laura Riddering** (Ph.D.), Research Translation Advisor at Catholic Relief Services. *The Care Squeeze: An Institutional Ethnography of a Nonprofit to Investigate the Diverse Labors Undertaken "To Fight for Better" in Coffee Markets.*
- **Mariya Shcheglovitova** (Ph.D.), Assistant Professor of Environment and Society at Utah State University. Dissertation: *Dead Wood: Growing, Wasting, and Harvesting Baltimore's Urban Forest*.

**Talk to us!**

Reach out to faculty directly (ges.umbc.edu/faculty-pages), or contact the Graduate Program Director or Department Chair with any questions.

- David Lansing, Graduate Program Director (dlansing@umbc.edu)
- Alan Yeakley, Chair (yeakley@umbc.edu)