

GISCIENCE AND REMOTE SENSING

GlScience and Remote Sensing geographers apply the world's most advanced Earth observation and spatial analytical technologies to address crucial issues concerning socio-economic development and environmental science and policy. You will acquire strong working knowledge of remote sensing, spatial analysis, decision science, image processing, dynamic modeling, time series analysis, geostatistics, and the global positioning system. Special opportunities also exist in Conservation and Earth System Science or GlScience and Remotely Sensed Image Processing software development.

AREAS OF EXPERTISE

- Conservation GIScience
- Land change mapping and modeling
- Image time series analysis
- Image classification
- Spatial decision support
- Software/System development
- Remote sensing of the cryosphere
- Remote sensing of forest and agricultural ecosystems

HUMAN-ENVIRONMENT GEOGRAPHY

Human-Environment geographers draw from social theory, ecological sciences, land system science, development studies, decision science, law, and ethics to examine relationships between people and environments. We focus on how these relationships influence processes shaping: (1) land use, land cover and their long-term legacies; (2) the use and control of natural resources; (3) socio-ecological vulnerability and resilience; and (4) patterns of environmental justice, conflict and uneven development.

AREAS OF EXPERTISE

- Environmental policy and practice
- Food systems and agriculture
- Human dimensions of global environmental change
- International development
- Natural resource extraction
- Socio-environmental movements and conflicts
- Sustainability, land use and environmental change
- Vulnerability, resilience and hazards
- Political ecology

EARTH SYSTEM SCIENCE

Clark University Earth System Science geographers benefit from an interdisciplinary approach to study the complex, interrelated physical and biological components of the Earth's land surface, atmosphere, biosphere, cryosphere, and oceans, placing an emphasis on observing, understanding, and predicting global environmental changes.

AREAS OF EXPERTISE

- Terrestrial ecosystems and global change
- Climate and global environmental change
- Polar climate change
- Forest ecology
- Terrestrial and marine biogeochemistry
- Landscape and disturbance ecology
- Surface water and cold-region hydrology

URBAN-ECONOMIC GEOGRAPHY

At Clark University, we draw on a diverse range of theoretical and methodological approaches — from economic sociology to political geography — to examine the processes that drive change, conflict, innovation, and uneven development across the world. You will acquire the skills needed to analyze the forces that structure and guide the development of communities, industries, cities, and the global economy.

Since 1925, Clark has been home of *Economic Geography*, an internationally peer-reviewed, cutting edge research journal.

AREAS OF EXPERTISE

- Urban, industrial, and regional development
- International development and political economy
- Innovation and entrepreneurship
- Social movements, legal geographies, and place-making processes
- Critical race and social theories
- Urban politics
- Globalization and its uneven consequences
- Critical mobilities
- Sustainability and technological change



GET STARTED

Join our global community of passionate scholars whose creativity, intellectual daring, collaborative spirit, and commitment to progress are transforming lives in the neighborhood and around the world. Visit **clarku.edu/gradapply** for dates and admission requirements.

Financial Support

At Clark, we provide tuition remission and a stipend during the academic year to every doctoral student accepted into the program who does not hold an outside fellowship or stipend. This award is renewable each year, for up to four years, as long as the student remains in good academic standing and is making timely progress. The tuition remission and stipend awards are not based on financial need; it has been our policy to fund graduate students in the Ph.D. program equally because it contributes to a sense of community among our students. The stipend for the academic year (September through May) involves a teaching or research assistantship of 17.5 hours per week.

A variety of additional fellowships are also available. Please contact us for more information.

There's never been a better time to be a change-maker.

clarku.edu/geography

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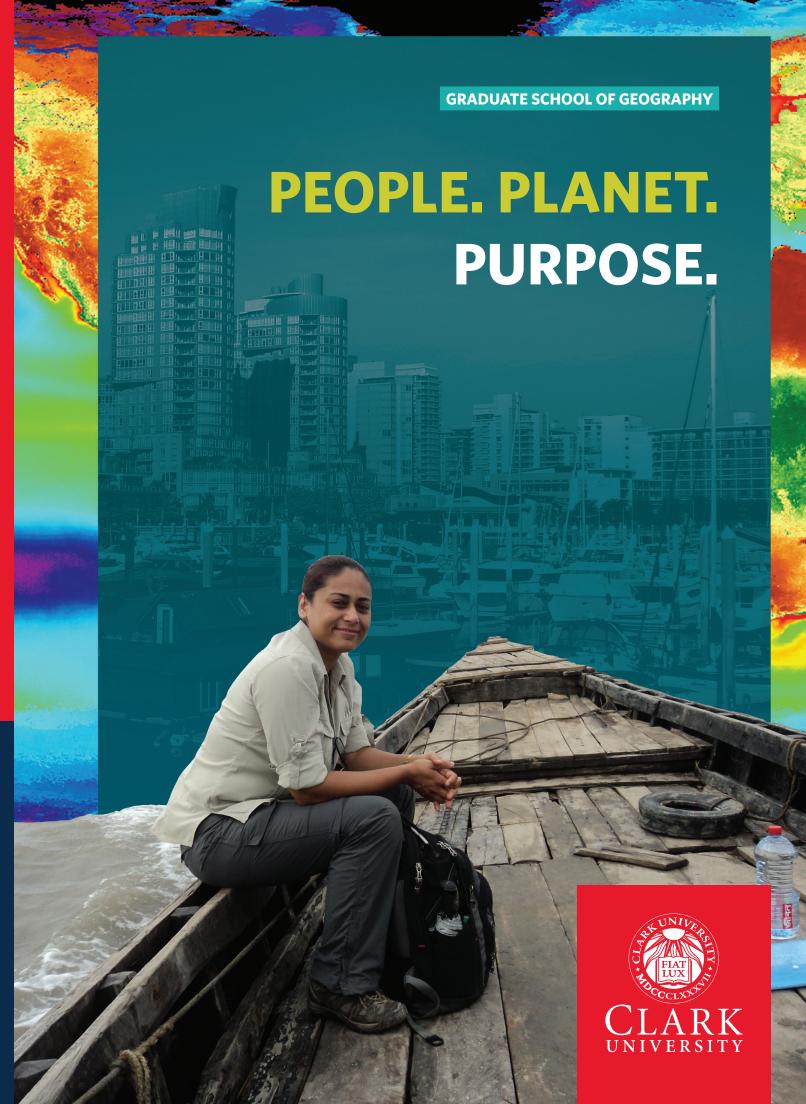
The Heart of the Commonwealth As New England's second-largest city, Worcester makes an ideal home base for Clark's ambitious entrepreneurial and societal endeavors. Here are just a few of the features that make our location ideal for graduate work and life. WORCESTER BOSTON 47mi (1 hr)



- 20 trains daily to and from Boston
- 38k students at 12 colleges and universities
- Top 40 U.S. city to live and launch a business, CNNMoney.com

PROVIDENCE

40mi (45 mins)



Work with the best.

Consistently ranked as one of the top ten research/doctorate geography programs by the U.S. National Research Council, Clark University offers you the opportunity to train with experts in the field and participate in world-class research on the undergraduate and graduate levels. Join other Clark geographers in becoming a significant contributor to scholarly and policy debates on the geographical drivers and consequences of socio-economic development, political struggle, and environmental change. Having awarded more doctorates than any other geography program in the U.S., Clark Geography has a reputation for training future leaders in the field.

AREAS OF STUDY

The Graduate School of Geography encourages study at the cutting edge of geography. We creatively work across the lines between disciplines and within geography's subdisciplines to tackle the challenges that humanity faces. While we are inherently defined by our collaborative, interdisciplinary approach, the School's research and graduate training is organized around four subfields. They include:

- Earth System Science
- GIScience and Remote Sensing
- Human-Environment Geography
- Urban-Economic Geography

UNDERGRADUATE PROGRAMS

- B.A. in Geography
- B.A. in Global Environmental Studies
- B.A. in Earth System Science (track in Environmental Science major)

Minors in Geography, Global Environmental Studies, and Environmental Science; Concentration in Urban Development and Social Change

GRADUATE PROGRAMS

- Ph.D. in Geography
- M.S. in Geographic Information Science
- Accelerated B.A./M.S. program in Geographic Information Science
- 2-year M.S. program in Geographic Information Science

100,000+

licensed users of TerrSet, the pioneering GIScience software system developed by Professor Ron Eastman in 1987.



Ours is the only geography program in the nation to have 5 members elected to the National Academy of Sciences.



The Clark Mountains in Antarctica were named after our highly regarded geography program by Clark graduate and famed meteorologist Paul Siple.

years Clark has been educating women geographers (since the 1920s); we are honored to have the first female geographer elected to the U.S. National Academy of Sciences.



EARTH SYSTEM SCIENCE

Climate and global environmental change, polar climate change, land-ocean linkages, terrestrial and marine biogeochemistry, sea ice variability, remote sensing, spatial analysis (also in GIScience and Remote Sensing)

Dominik Kulakowski, Ph.D.

Karen Frey, Ph.D.

Forest ecology, mountain forest ecosystems, disturbance ecology

Christopher A. Williams, Ph.D.

Land surface hydrology, ecosystem ecology, hydroclimatic variability and change, global water, carbon cycles (also in GIScience and Remote Sensing)



GISCIENCE AND REMOTE SENSING Lyndon Estes, Ph.D. Global change, agricultural ecology, land change,

conservation, Earth observation, GIScience

land change science, spatial statistics

Robert Gilmore Pontius Jr., Ph.D. GIScience, quantitative environmental modeling,

John Rogan, Ph.D.

Landscape ecology, fire ecology, remote sensing, GIScience (also in Earth System Science)

Florencia Sangermano, Ph.D.

GIScience, remote sensing, species distribution modeling, landscape ecology, conservation biology (also in Earth System Science)

HUMAN-ENVIRONMENT GEOGRAPHY

Anthony Bebbington, Ph.D.

Development geography, political ecology, social movements, natural resource extraction, agrarian

Rinku Roy Chowdhury, Ph.D.

Land system science, cultural and political ecology, institutional theory, agrarian decisionmaking and change, urban ecology and climate resilience, mixed-methods research (also in GIScience and Remote Sensing)

Youjin Chung, Ph.D.

Political economy of development, feminist and historical political ecology, food and agrarian studies, critical social/feminist theory, African studies, critical visual ethnography (also in Urban-Economic Geography)

James McCarthy, Ph.D.

Political ecology, political economy, environmental politics, policy, and governance, social theory (also in Urban-Economic Geography)

URBAN-ECONOMIC GEOGRAPHY

Yuko Aoyama, Ph.D.

Economic/industrial geography, global economic change, technology and culture

Asha Best, Ph.D.

Urban geography, informality, mobilities, postcolonial and critical race theory

Mark Davidson, Ph.D.

Urban politics, critical urban theory, gentrification, urban development, state restructuring

Deborah G. Martin, Ph.D.

Urban geography, social movements (particularly neighborhood activism), place identity, local politics, legal geography, qualitative methodologies

James T. Murphy, Ph.D.

Economic geography, technological change, sustainable development, developing economies (also in Human-Environment Geography)

Where will Clark take you?

Our graduates work as leading scholars, activists, and policymakers in academia, governments, nongovernmental organizations, and private sectors across the globe. Employers of recent geography alumni include:

AIR Worldwide

Brown University European Forestry Institute

Harvard University Institute for Health Metrics

& Evaluation Lancaster University, U.K.

London School of Economics NASA

NOAA

Penn State University Temple University

Trinity College, Dublin **UC** Berkeley

University of Hawaii University of Manchester, U.K. University of Singapore

U.S. Census Bureau

U.S. Fish and Wildlife Service U.S. Geological Survey

U.S. National Park Service

Wageningen University & Research

Woods Hole Oceanographic Institution

Woods Hole Research Center

Worcester Polytechnic Institute

World Bank