



Geography & Earth Science

College of Science & Health

What is geography? Geography is the science of place and space. Geographers ask where things are located on the surface of the earth, why they are located where they are, how places differ from one another, and how people interact with the environment. There are two main branches of geography: human geography and physical geography. Human geography is concerned with the spatial aspects of human existence - how people and their activity are distributed in space, how they use and perceive space, and how they create and sustain the places that make up the earth's surface. Human geographers work in the fields of urban and regional planning, transportation, marketing, real estate, tourism, and international business. Physical geographers study patterns of climates, land forms, vegetation, soils, and water. They forecast the weather, manage land and water resources, and analyze and plan for forests, rangelands, and wetlands. Many human and physical geographers have skills in cartography and Geographic Information Systems (GIS). Geographers also study the linkages between human activity and natural systems.

How do you know if you want to be a Geographer? Are you curious about places? Do you like to study maps? Are you interested in the constantly changing pattern of human activity and natural phenomena on the landscape? Are you interested in foreign areas? Do you like to work outside? Are you a problem solver? Are you good at seeing connections among seemingly unrelated processes? Can you adapt to rapid technological change? Do you try to see the big picture? Are you interested in connections between humans and the environment?

Undergraduate Programs

Majors

- Geography*

With concentrations in:

Environmental Science

Geographic Information Science

Minors

- Earth Science*
- Geographic Information Science
- Geography*
- Geoarchaeology

**Teacher certification available*

The Geography Major is designed to provide students with a strong, broad background in Geography and Earth Science while offering them flexibility in choosing relevant electives in Geography and in related support areas. The goal of this curriculum is to prepare students for (1) entry-level positions in business and government, and (2) graduate programs in geography and earth science. The program also encourages and provides ample opportunity for students to participate in internship programs and to conduct undergraduate research.

Department Features

The department has dedicated instructors, willing to devote considerable amounts of their time to individual students in order to enhance their educational experience at UW-L. There are opportunities to work with faculty members on undergraduate research projects, or to participate in small group extended field trips to selected parts of the United States and abroad. The department has its own well-equipped laboratories for instruction in cartography, remote sensing and GIS, as well as a soil laboratory and an on-campus weather station.

Internships

The Department of Geography/Earth Science encourages, promotes, and assists students to seek internship opportunities in the private sector as well as all levels of government agencies. There are a wide variety of organizations within the La Crosse area that provide geography internships. These include grass-root non-profit organizations, private companies, and city, county, state, and federal government offices.

Faculty

Rafique Ahmed, Professor, Ph.D., Ohio State University, Physical Geography, Conservation, Meteorology and Climatology.

Colin Belby, Assistant professor, Ph.D., University of Wisconsin – Madison, Physical Geography, Fluvial Geomorphology, Soils, GIS, Environmental Science.

Cynthia Berlin, Professor, Ph.D., Indiana State University, Remote Sensing, Environmental Science, GIS, Biogeography.

Georges Cravins, Professor, Ph.D., Clark University, Political, Population, Cultural Geography.

Wen Lin, Assistant professor, Ph.D., University of Wisconsin -- Milwaukee, GIS, Urban Geography, Environmental Science.

Ian Muehlenhaus, Assistant professor, Ph.D., University of Minnesota. Map Design, GIS and Society, Central Europe and Political Geography.

Ryan Perroy, Assistant professor, Ph.D., University of California—Santa Barbara, Geomorphology, Soils, GIS, Remote Sensing, Environmental Science.

Rachel Slocum, Assistant professor, Ph.D., Clark University, Cultural Geography, Environmental Issues, Race, Gender and Food Systems.

Sample Courses

- Earth Environments
- World Cultural Regions
- Geography of the United States and Canada
- Geography of the Middle East
- Political Geography
- Geography of Europe
- Economic Geography
- Maps & Society
- Geography of Wisconsin
- Biogeography
- Conservation of Global Environments
- Fundamentals of Cartography
- Geographic Information Systems, Intro & Advanced
- Remote Sensing of the Environment, Intro & Advanced
- Meteorology and Weather Forecasting
- Environmental Hazards
- Geomorphology
- Global Warming & Climate Change

Career Opportunities

For students planning to end their formal education with the bachelor's degree, a geography major provides marketable skills and the broad perspectives on environment and society that enable graduates to move beyond entry-level positions. For similar reasons, geography provides a sound foundation for students who plan to enter graduate work in a variety of fields.

- Business Site Selector
- Cartographer
- Census Surveyor
- County Land Information Technician
- Demographer
- DNR Resource Planner

- Environmental Impact Statement Writer
- Field Technician
- Foreign Service Officer
- GIS Technician
- Land Use Planner
- Meteorologist
- Pollution Control Specialist
- Satellite and Air Photo Image Interpreter
- Teacher
- Urban Planner

Graduate Education

While there is not a graduate program in geography or earth science at UW-L, the undergraduate program is of such breadth that a well-qualified graduate would find no difficulty being accepted into graduate school. Students seeking advanced degrees frequently have college or university teaching as a career goal, but may also be seeking additional training in an applied geography or earth science field.

Occupational Outlook

Geography is an attractive major for students. Its theories and methods provide analytical techniques applicable to a wide range of questions asked over a broad spectrum of occupations. The potential for practicing geography in private enterprise and government has grown considerably in recent years, although few such positions are designated with the title of geographer. Roughly a quarter of all geographers work in the private and public sectors. Career opportunities exist in areas where the spatial perspective and the facility of using maps, aerial photographs, and satellite images are especially useful. Included are such areas as city and regional planning, environmental management, market research, map design and publication, international business, and many state and national governmental agencies such as the U.S. Geological Survey, the Natural Resources Conservation Service, the National Weather Service, the National Park Service, and the National Biological Survey.

Graduating majors have not had difficulty obtaining employment because of the variety of jobs available to people with geographic training. Most recently, the need for environmental planners in both government and industry has resulted in tremendous demand for our graduates with applied geography skills. The long-term opportunities for geographers and earth scientists are the brightest they have been in years, given the needs our society has placed on understanding our environment and for careful planning of our land, both locally and internationally.

Job Titles of UW-L Graduates in Geography

- Air Traffic Controller
- Business Trade Area Analyst
- Cartographer, Department of Defense
- Educational Media Specialist, National Geographic Society
- GIS, Soil Conservation Service
- GIS Technician, Department of Transportation (MN)
- GIS Technician, Wisconsin Department of Administration
- GIS Technician, private development company
- GIS, Wisconsin Department of Natural Resources
- Instructor, U.S. Military Academy, West Point
- Meteorologist, National Weather Service
- Planner, Department of Natural Resources
- Soil Conservationist
- State Park Service Naturalist
- Statistician, U.S. Census
- Supervisor, Westinghouse Savannah River Plant
- Technician, Intelligraphics International
- Transportation Research and Planning, Drachman Institute
- University Professor
- Water Resources Planner, Wisconsin DNR

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