

# Geography

## The bridge between the social and earth sciences. . .

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. The discipline's two main branches are human 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. Physical geographers study patterns of climates, landforms, vegetation, soils, and water and they manage land and water resources and study forests, rangelands, and wetlands.

## What you can do with a degree in Geography. . .

Most recent graduates secure employment in the field of geographical information science (GISc). According to the U.S. Department of Labor, GISc is one of the three most important emerging and evolving career fields, along with nanotechnology and biotechnology. GISc technology involves the input, storage, analysis, and display of all forms of spatial information. GISc draws upon the fields of satellite and airborne remote sensing, digital image processing, global positioning systems, computer mapping and graphics, and geographic information systems to assess, manage, and plan many facets of society, including air and water resources, population growth, natural resource management, economic development, business marketing and site location, building design, and urban infrastructure.

Geography graduates are employed in a wide range of job positions, although few of them have the title 'geographer'. Some of the job titles held by our recent graduates include Marketing Coordinator, GIS Technician, Imagery Analyst, GIS Consultant, Economic Development Officer, Weather Officer, Urban Planner, Environmental Specialist, Meteorologist, Computer Analyst, Fisheries Biologist, Water and Land Use Conservationist, Natural Resources Specialist, GIS Lab Manager, GIS Specialist, Economic Developer, Image Intelligence Officer, Systems engineer, Emergency Manager, and Geographic Specialist.

## Program Options. . .

The department offers three undergraduate options: community and urban development, environmental geography, and geographic education. Each option provides a strong foundation in the discipline and prepares students for graduate studies and professional careers in government, private industry, or teaching.

## Getting in. . .

Students declare Geography as a major by going to the College of Arts and Sciences Office and declaring their intent.

## Unique characteristics of UND's Geography program. . .

- Faculty research interests include many systematic, regional, and technical areas of geography.
- Technical interests include geographic information systems, remote sensing, global positioning systems, computer-assisted cartography, field methods, and quantitative techniques.
- Systematic areas include biogeography, climatology, geomorphology, hydrology, community development, geographic education, economic, historical, political, population, and urban.
- Regional specialties include China, Canada, and North America.

Information continued on opposite side. . .

## Geography Continued. . .

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### It's A Fact. . .

- Many geographers study the linkages between human activity and natural systems and they are active in the study of global warming, desertification, deforestation, loss of biodiversity, groundwater pollution, and natural hazards.
- In addition, many geographers have skills in geospatial technologies such as cartography, Geographic Information Systems (GIS), remote sensing, and global positioning systems.
- Our Geographic Analysis and Remote Sensing Laboratory houses a spatial analysis laboratory with image processing and GIS software, printers, digitizing tablets, a color scanner, and 25 desktop computers. Field equipment is also available for field research projects.
- The Bernt L. Wills Scholarship is presented twice a year to the most outstanding Geography student.
- Freshman level classes are between 50-150 students; junior and senior level classes generally between 10-25 students.
- Several courses involve a field component and hands-on computer laboratory work.
- There are 7 full-time faculty in the department.
- There are approximately 45 undergraduate students and 20 graduate students enrolled in the program.
- The Geography major was established in 1925.
- Gamma Theta Upsilon, a national geography organization, is active on campus as is the Geography Club.
- Starting salaries with a Bachelors degree are in the \$35,000-\$45,000 range. Our graduates have been very successful in obtaining quality entry level jobs regionally and nationally.
- Prominent alums include: Director of the Center for Community and Economic Development at the University of Southern Mississippi, Foreign Trade Analyst for the State of North Carolina, Professor of Geography at Michigan State University, Professor of Geography at New Mexico State University, Image Intelligence Officer in the National Geospatial-Intelligence Agency in Washington, D.C., Systems Engineer at NAVTEQ in Fargo, and Planner for Cass County, ND.

### In Addition. . .

- All faculty regularly make use of their research in classes in order to provide case studies and examples for the classroom.
- Recent research by department members includes: remote sensing detection of invasive species, analysis of closed basin and wetland flooding in the Devils Lake Basin, analysis of the flood hydroclimatology of the Red River of the North, examination of refugee settlement in North Dakota, examination of the impact of surface mining upon the distribution of trace elements in stream channel systems, and the geography of retail in the People's Republic of China.
- Students may take up to 6 credits of Geog 397: Cooperative Education toward their undergraduate geography degree. This class provides college credit for paid work experiences closely related to geography. Students are responsible for finding their own positions, but the department does make suggestions. Most undergraduate make use of this option during the summer of their junior and senior years when they are actively seeking summer internships.
- Students may earn between 1-3 credits for volunteer work experiences related to geography through Geog 497: Geography Internship.
- The Geography faculty is extremely accessible to undergraduate students. In addition to regularly posted office hours, faculty maintain an "open door policy" for undergraduate students—that is, students are welcome to talk to faculty at any time when their office doors are open.
- The combination of theoretical and applied coursework in Geography provides an exceptional foundation to our graduates for entry-level positions or graduate education. We have outstanding placement of our graduates in quality entry-level career positions throughout the northern Great Plains region. We also provide excellent opportunities for summer internships in geography from companies and agencies that contact us for students. Our listserv informs our students of these opportunities; we often have more inquiries from agencies and companies for students than we have qualified students to place.
- The University of North Dakota is offering more online courses and degree programs than ever before to provide you with additional flexibility. Please visit [www.distance.und.edu](http://www.distance.und.edu) for more information or call toll free at 800-342-8230 or 701-777-3044.

### For more information. . .

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*<http://www.und.edu/dept/Geog/mainpage.htm>*