# GEOGRAPHY

## What can I do with this major?

### AREAS

**PHYSICAL GEOGRAPHY**

Physical geographers study Earth’s processes and patterns in the natural environment, such as climate and weather. They also evaluate the impact of natural hazards, such as hurricanes, tornadoes, and earthquakes.

- Biogeography
- Geomorphology
- Climatology and Meteorology
- Hydrology
- Coastal Geography
- Oceanography
- Glaciology
- Pedology
- Geomatics and Geodesy
- Forestry and Conservation Science
- Natural Hazards
- Emergency Management

**ENVIRONMENTAL GEOGRAPHY**

Environmental geographers are concerned with how human beings use the Earth and impact the environment.

- Environmental Management
- Conservation
- Waste Management and Disposal
- Environmental Regulation
- Emergency Management
- Outdoor Recreation Management

### EMPLOYERS

- State and local government
- Federal government:
  - Agribusiness corporations
  - Outdoor recreation companies
  - Resource management agencies
  - Research institutes
  - Insurance companies
  - Television and radio stations
- State and local government
- Federal government:
  - Environmental Protection Agency, Department of Agriculture, Department of Energy, National Forest Service, National Park Service
  - National laboratories
  - Real estate developers
  - Scientific and research groups
  - Waste management companies
  - Chemical companies
  - Firms specializing in forestry, mining, environmental issues or surveying
  - Nonprofit organizations
  - Law firms

### STRATEGIES

- Develop strong analytical and communication skills.
- Build a solid foundation in the sciences, such as physics, chemistry, soil science, agriculture.
- Identify an area of interest and take relevant courses to prepare. For example, weather systems, atmospheric dynamics, thermodynamics, and physical meteorology for careers in meteorology/atmospheric science.
- Gain experience through part-time jobs, internships, or volunteer opportunities related to climate, weather, natural hazards, forestry.
- Participate in summer research programs or assist a professor on a research project.
- Get involved with student professional organizations.
- Be willing to relocate to regions that have job availability.
- Learn government application processes, and seek assistance from campus career centers.
- Some specialties will require graduate degrees.
- Become skilled in related computer technology.
- Take biology and chemistry courses for environmental management positions.
- Seek electives in plant science, forestry, and wildlife management for careers in recreation and forestry management.
- Join environmental organizations on campus and in your community.
- Seek environmental-related experience through internships or part-time jobs.
- Learn federal government job application process.
- Earn a law degree to work in areas such as environmental law and policy.
### CULTURAL & HUMAN GEOGRAPHY

*Cultural and human geographers study the aspects of geography that relate to different cultures. They especially focus on cultural origins and movement, as well as the cultural characteristics of regions.*

<table>
<thead>
<tr>
<th>Cultural Resources</th>
<th>Federal, state, and local government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic Preservation</td>
<td>Peace Corps</td>
</tr>
<tr>
<td>Historical Consultation</td>
<td>Real estate developers</td>
</tr>
<tr>
<td>Community Development/Redevelopment</td>
<td>Companies dealing with insurance, transportation, communications, and international trade</td>
</tr>
<tr>
<td>Regional Geography</td>
<td>Scientific and research groups</td>
</tr>
<tr>
<td>Population Geography/Demography</td>
<td>Nonprofit organizations</td>
</tr>
<tr>
<td>Political Geography</td>
<td>Museums and historical sites</td>
</tr>
</tbody>
</table>

**EMPLOYERS**

- Federal, state, and local government
- Peace Corps
- Real estate developers
- Companies dealing with insurance, transportation, communications, and international trade
- Scientific and research groups
- Nonprofit organizations
- Museums and historical sites

**STRATEGIES**

- Develop an open mind towards the language, history, customs, and culture of other countries.
- Gain experience conducting library research, making field observations, and interpreting artifacts.
- Learn a foreign language for field observations in other countries.
- Participate in cross-cultural groups and organizations.
- Develop excellent communication and teamwork skills in order to work with historians and archivists in recreating the geography of the past.
- Obtain related experience in your area of interest through volunteer or paid positions, including internships.
- Learn federal, state, and local government job application processes.
- Consider earning a graduate degree for increased opportunities.

### ECONOMIC GEOGRAPHY

*Economic geographers study the distribution of resources and economic activities within a certain region. They may use this information to advise organizations on where to build new facilities.*

<table>
<thead>
<tr>
<th>Location Analysis</th>
<th>Federal, state, and local government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate Development</td>
<td>Market research firms</td>
</tr>
<tr>
<td>Transportation Management</td>
<td>Manufacturing, wholesale, and retail firms</td>
</tr>
<tr>
<td>Agricultural Planning</td>
<td>Public utilities</td>
</tr>
<tr>
<td>Travel/Tourism Planning</td>
<td>Consulting firms</td>
</tr>
<tr>
<td>Business Development</td>
<td>Real estate appraisers and developers</td>
</tr>
<tr>
<td></td>
<td>Banks</td>
</tr>
<tr>
<td></td>
<td>Convention centers and tourism bureaus</td>
</tr>
</tbody>
</table>

**EMPLOYERS**

- Federal, state, and local government
- Market research firms
- Manufacturing, wholesale, and retail firms
- Public utilities
- Consulting firms
- Real estate appraisers and developers
- Banks
- Convention centers and tourism bureaus

**STRATEGIES**

- Develop strong communication skills.
- Take business courses such as economics, advertising, marketing, finance, statistics to increase marketability in the field.
- Earn a business minor.
- Learn to see all sides of a problem, including economic, social, political, and environmental.
- Observe city/county advisory meetings.
- Obtain business-related work experience to gain relevant skills and build a network of contacts.
- Consider earning a master’s degree in business or a related field to increase opportunities.
**AREAS**

**PLANNING**

*Planners ensure that communities develop in an orderly way and that they have the services necessary to support them.*

City/Regional Planning
Housing Development
Convention/Tourism
Community Development
Demography
Transportation
Waste Management
Conservation

**EMployers**

City, county, and regional planning agencies
Local and state government
Federal government:
- Agency for International Development, World Development
- Bank, Department of Housing and Urban Development
Research organizations
Private business
Banks
Industrial firms
Public utilities
Architecture firms
Real estate developers

**STRATEGIES**

Develop team work and communication skills.
Participate in student government.
Take courses in public administration or public finance.
Observe city/county advisory meetings.
Seek internship or work experience in a local government planning office, as they are a large employer in this area.
Learn federal, state, and local government job application processes.
Obtain a master's degree in planning or consider a dual degree in planning and law.
Research the certified planning credential obtained through the American Institute of Certified Planners.

**GEOGRAPHIC TOOLS AND TECHNOLOGY**

*Geographers utilize a variety of technologies to generate maps, store, analyze, and interpret map information.*

Cartography
Photogrammetry
Online Mapping
Geographic Information Systems (GIS)
Global Positioning Systems (GPS)
Remote Sensing:
- Radar and Satellite Imaging
- Aerial Photography
Spacial Statistics
Surveying
Field Research

State and regional government agencies:
- Departments of Transportation or Agriculture
Federal government:
- Departments of Defense, Interior, Commerce, Agriculture, and State, Defense Mapping,
Private industry including telephone, utilities, construction, engineering, energy, environmental planning, and consulting firms
Map publishers
Mapping/GIS/GPS software companies, e.g. ESRI, Google Earth

Take courses in surveying and measurements, photogrammetry, computer systems, database management, technical mathematics, drafting, statistics, optics, remote sensing, art, graphics.
Develop strong quantitative skills.
Learn to be detail-oriented.
Gain experience reading maps and interpreting data sources including geological surveys and satellite images.
Seek related experience, such as a part-time job or internship, to develop technical skills.
Research certification requirements with the American Society for Photogrammetry and Remote Sensing.
All states require licensure for surveyors. Learn more through the National Council of Examiners for Engineering and Surveying.
Some positions may require advanced degrees in geography or related fields.
### GEOGRAPHIC EDUCATION

Geography teachers may specialize in one or more areas of the discipline or incorporate it into a social science education program.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>EMPLOYERS</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>Elementary/secondary schools, public and private</td>
<td>Develop strong communication skills, both oral and written.</td>
</tr>
<tr>
<td>Research</td>
<td>Colleges and universities</td>
<td>Seek volunteer or paid experiences, such as camp counselor or tutor, with target age group.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obtain certification/licensure for public school teaching. Earn multiple certifications for increased</td>
</tr>
<tr>
<td></td>
<td></td>
<td>employability.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complete a master’s degree for community college teaching or a Ph.D. for college/university faculty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>positions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintain a high grade point average and build strong faculty recommendations to prepare for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>graduate school.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specialize in an area such as quantitative research techniques, computer mapping, or natural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>resource management.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Join the National Council for Geographic Education.</td>
</tr>
</tbody>
</table>

### GENERAL INFORMATION

- Geography provides a broad foundation for a variety of career fields. Develop a goal and seek the experiences, skills, and degrees needed to prepare for that field.
- Bachelor’s degree qualifies you for entry-level positions in government, industry, and nonprofit. Master’s degree qualifies you for community college teaching and advancement in other organizations. Ph.D. is required for research and teaching positions in colleges and universities and senior positions in government and industry.
- Obtain volunteer, part-time, summer, internship, or co-op experience in your area of interest.
- Join professional organizations such as the American Geography Society or the National Council for Geographic Education.
- Get involved in groups directed toward improvement of natural resources or environment and conservation.
- Maintain knowledge of current environmental issues including policy, conservation, and industry trends.
- Computer knowledge is extremely important in geography. Seek experience with and classes in geographic technologies.
- Develop strong mathematical and statistical skills, as well as good communication skills. Also build skills in mapping, graphics, and charts. An interest in photography may prove beneficial.
- Conduct informational interviews with professionals to learn more about the field and to develop a network of contacts.