Career and Transfer Center

Monroe Community College

Career Profile:

Geo-Science, Geography, & Geology

Geologists and **Geophysicists** use their knowledge of the physical makeup and history of the Earth to locate water, mineral, and energy resources; protect the environment; predict future geologic hazards; and offer advice on construction and land use projects. **Petroleum Geologists** explore for oil and gas deposits by studying and mapping the subsurface of the ocean or land.

Oceanographers use their knowledge of geology and geophysics, in addition to biology and chemistry, to study the world's oceans and coastal waters. **Mineralogists** analyze and classify minerals and precious stones according to composition and structure and study their environment in order to find new mineral resources. **Stratigraphers** study the formation and layering of rocks to understand the environment in which they were formed. **Volcanologists** investigate volcanoes and volcanic phenomena to try to predict the potential for future eruptions and possible hazards to human health and welfare. **Seismologists** interpret data from seismographs and other geophysical instruments to detect earthquakes and locate earthquake-related faults. **Hydrologists** study the quantity, distribution, circulation, and physical properties of underground and surface waters. **Mining** and **Geological Engineers** find, extract, and prepare coal, metals, and minerals for use by manufacturing industries and utilities.

Geographers analyze distributions of physical and cultural phenomena on local, regional, continental, and global scales. **Economic Geographers** study the distribution of resources and economic activities. **Political Geographers** are concerned with the relationship of geography to political phenomena, whereas cultural geographers study the geography of cultural phenomena. **Physical Geographers** study variations in climate, vegetation, soil, and landforms, and their implications for human activity. **Urban and Transportation Geographers** study cities and metropolitan areas, while regional geographers study the physical, economic, political, and cultural characteristics of regions.

Salary Information:

- Geographer
  $66,830 Median Salary Range (U.S. Bureau of Labor Statistics, 2008)
  [*Salary varies based on education/advanced degree, work-experience & setting/location.]

Transfer Information:

- A Bachelor's degree is entry-level into many of these professions and a Master's/PhD may be required for some.

Additional Information:

- Association of American Geographers: www.aag.org
- Geological Society of America: www.geosociety.org

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