ANOKA-RAMSEY COMMUNITY COLLEGE

What Can I Do with a Major In **GEOSCIENCE**?

Geoscientists are stewards or caretakers of Earth's resources and environment. Geoscientists provide essential information for solving problems and establishing governmental policies for resource management; environmental protection; and public health, safety, and welfare. Geology is a subset of Geoscience that has a concentrated focus on the solid earth.

Typical Coursework

Calculus	Chemistry	English Composition	Geochemistry
Geophysics	Historical Geology	Mineralogy	Physics
Principles of Geology	Paleontology	Linear Differential Equations	
Intro to Computer Science	Sedimentology and Stratigraphy		

Related Major Skills

Variety of science skills / background	Ability to communicate effectively in writing
Ability to tell a story / oral communication skills	Develop and structure research projects
Scientific communication	Knowledge of interconnectedness of different "spheres"
Able to identify basic rock-forming minerals	Understanding of how/why to sample rocks & fossils
Recognize different types of natural hazards	Basic field and laboratory safety techniques
Read and construct topographic maps	Understand plate tectonic processes
Knowledge of geologic history of local region	Sense of geologic time
Technology	Computing tools
Data management	Create visualizations
GPS	GIS

Related Occupations – may need advanced education

Atmospheric scientists study weather processes

Economic geologists explore for and develop metallic and nonmetallic resources

Engineering geologists investigate geologic factors that affect structures such as bridges, buildings, airports, and dams

Environmental geologists work to solve problems associated with pollution, waste management, urbanization, and natural hazards, such as flooding and erosion

Geochemists use organic chemistry to study the composition of fossil fuel (coal, oil, and gas) deposits

Geochronologists determine the age and the time sequence of events in the history of the Earth

Geologists study the materials, processes, products, physical nature, and history of the Earth

Geomorphologists study Earth's landforms and landscapes in relation to the geologic and climatic processes and human activities, which form them

Geophysicists apply the principles of physics to studies of the Earth's interior and investigate Earth's magnetic, electric, and gravitational fields

Glacial geologists study the physical properties and movement of glaciers and ice sheets

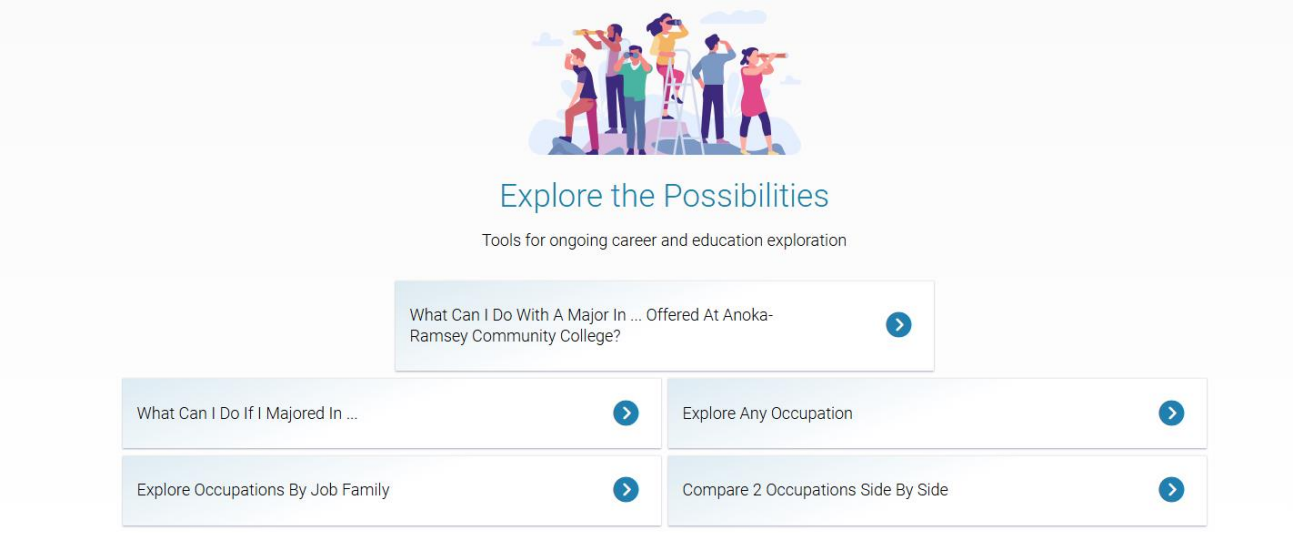
Hydrogeologists study the occurrence, movement, abundance, distribution, and quality of subsurface waters and related geologic aspects of surface waters
Hydrologists are concerned with water from the moment of precipitation until it evaporates into the atmosphere or is discharged into the ocean
Marine geologists investigate the ocean-floor and ocean-continent boundaries
Meteorologists study the atmosphere and atmospheric phenomena, including the weather
Mineralogists study mineral formation, composition, and properties
Oceanographers investigate the physical, chemical, biological, and geologic dynamics of oceans
Paleoecologists study the function & distribution of ancient organisms and relationships to environment
Paleontologists study fossils to understand past life forms and their changes through time
Petroleum geologists are involved in exploration for and production of oil and natural gas resources
Petrologists determine the origin and natural history of rocks
Planetary geologists study planets and moons in order to understand the evolution of the solar system
Seismologists study earthquakes
Soil scientists study soils and their properties to determine how to sustain agricultural productivity
Stratigraphers investigate the time and space relationships of rocks, on a local, regional, and global scale
Volcanologists investigate volcanoes and volcanic phenomena

Who Hires for this Occupation?

Most geoscientists are employed by industries related to oil and gas, mining and minerals and water resources. Geoscientists may also for research firms, colleges/universities, schools or the state and federal government.

Focus2

Visit **FOCUS2** (use ARCC credentials to sign-in) for more information regarding **related occupations and average salaries** and explore **other related majors.** You can also take **assessments** to match your skills, interests, and values to potential careers and majors.



Minnesota Colleges and Universities with a major in GEOSCIENCE

Carleton College	Gustavus Adolphus College	Macalester College
MN State University, Mankato	MN State University, Moorhead	St. Cloud State University
University of MN – Duluth	University of MN – Morris	University of MN – Twin Cities
Winona State University	University of St. Thomas	

Anoka-Ramsey Community College offers an Associate of Arts in Liberal Arts and Sciences Degree with general education courses that typically transfer as all or part of the first two years of a baccalaureate degree.

Search for majors and colleges at Minnesota State System Colleges and University

Professional Association Links

American Geosciences Institute
US Geological Survey
The Geological Society of America

For More Information

Contact ARCC Counseling (Coon Rapids and Cambridge) at (763) 433-1100 or stop by the campus Information Desk

Information adapted from:
Minnesota Career Information System
Occupational Outlook Handbook
Focus2
Career Center at the University of North Carolina at Wilmington