

What Can I Do with a Major in Earth Science

Earth science (also known as **geoscience**, **the geosciences** or **the Earth sciences**), is an all-embracing term for the sciences related to the planet Earth. It is arguably a special case in planetary science, the Earth being the only known life-bearing planet. There are both reductionist and holistic approaches to Earth sciences. The formal discipline of Earth sciences may include the study of the atmosphere, oceans and biosphere, as well as the solid earth. Typically Earth scientists will use tools from physics, chemistry, biology, chronology and mathematics to build a quantitative understanding of how the Earth system works, and how it evolved to its current state.

Sample Job Titles (some of these may require further education)

Atmospheric Scientist	Geotechnical Engineer	Planetary Geologist
Conservation Organizer	Glacial Geologist	Project Manager
Economic Geologist	Hydrogeologist	Research Assistant
Engineering Geologist	Hydrologist	Sedimentologist
Environmental Geologist	Marine Geologist	Seismologist
Environmental Lawyer	Meteorologist	Soil Scientist
Environmental Scientist	Naturalist	Structural Geologist
Geochemist	Oceanographer	Teacher/Professor
Geochronologist	Paleoecologist	Volcanologist
Geologist	Paleontologist	
Geomorphologists	Petroleum Geologist	
Geophysicist	Petrologist	

Related Major Skills

Communication skills, verbal and written	Record maintenance
Ability to define research problems and develop models	Prepare technical reports
Ability to organize and synthesize material in new ways	Field Sampling
Data analysis	Develop research proposals
Analytical skills	Review scientific literature
	Utilize technical instruments

International Organizations of Interest – A Brief Sampling

[Association for Women Geoscientists \(www.awg.org\)](http://www.awg.org)

The Association for Women Geoscientists is an international organization devoted to enhancing the quality and level of participation of women in geosciences and to introduce girls and young women to geoscience careers. Membership is open to anyone who supports AWG's goals.

[Center for International Earth Science Network \(www.ciesin.org\)](http://www.ciesin.org)

The Center for International Earth Science Information Network (CIESIN) is a center within the Earth Institute at Columbia University. CIESIN works at the intersection of the social, natural, and



information sciences, and specializes in on-line data and information management, spatial data integration and training, and interdisciplinary research related to human interactions in the environment.

[Group on Earth Observation \(www.earthobservations.org\)](http://www.earthobservations.org)

The Group on Earth Observations is coordinating efforts to build a Global Earth Observation System of Systems, or GEOSS. GEO was launched in response to calls for action by the 2002 World Summit on Sustainable Development and by the G8 (Group of Eight) leading industrialized countries. These high-level meetings recognized that international collaboration is essential for exploiting the growing potential of Earth observations to support decision making in an increasingly complex and environmentally stressed world. GEO is a voluntary partnership of governments and international organizations. It provides a framework within which these partners can develop new projects and coordinate their strategies and investments. As of June 2010, GEO's Members include 81 Governments and the European Commission. In addition, 58 intergovernmental, international, and regional organizations with a mandate in Earth observation or related issues have been recognized as Participating Organizations.

[International Geoscience Education Organization \(www.geoscied.org\)](http://www.geoscied.org)

The aims of the International Geoscience Education Organisation (IGEO) are to promote geoscience education internationally at all levels, to work for enhancement of the quality of geoscience education internationally and to encourage developments raising public awareness of geoscience, particularly amongst younger people. To meet these aims, the IGEO monitors international provision of geoscience education and foster communications between geoscience educators worldwide. It liaises with international and national bodies concerned with geoscience education, with international professional geoscience bodies, such as the International Union of Geological Sciences (of which it is an affiliate) and with international bodies concerned with science education.

[Peace Corps \(www.peacecorps.gov\)](http://www.peacecorps.gov)

The Peace Corps traces its roots and mission to 1960. Since that time, nearly 200,000 Peace Corps Volunteers have served in 139 host countries to work on issues ranging from AIDS education to information technology and environmental preservation. Today's Peace Corps is more vital than ever, working in emerging and essential areas such as information technology and business development, and committing more than 1,000 new Volunteers as a part of the President's Emergency Plan for AIDS Relief. Peace Corps Volunteers continue to help countless individuals who want to build a better life for themselves, their children, and their communities.

National Organizations of Interest – A Brief Sampling

[American Geological Institute \(www.agiweb.org\)](http://www.agiweb.org)

The American Geological Institute is a nonprofit federation of 47 geoscientific and professional associations that represents more than 120,000 geologists, geophysicists, and other earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in our profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resilience to natural hazards, and the health of the environment.



[American Geophysical Union \(www.agu.org\)](http://www.agu.org)

AGU is an international Union of scientists, working together on a broad spectrum of scientific topics that span all of the Earth and space sciences. Our research encompasses everything from the exploration of the planets, to studies of the structure and chemical composition of the Earth's deep interior, to understanding the Earth's atmosphere and the causes of climate change. These are not only exciting scientific topics; they are also of great interest and relevance to humankind.

[Federation of Earth Science Information Partners \(www.esipfed.org\)](http://www.esipfed.org)

The Federation of Earth Science Information Partners is a unique consortium of more than 110 organizations that collect, interpret and develop applications for Earth observation information. Included in the ESIP network are NASA, NOAA and USGS data centers, research universities, government research laboratories, supercomputing facilities, education resource providers, information technology innovators, nonprofit organizations and commercial enterprises.

[The Geological Society of America \(www.geosociety.org\)](http://www.geosociety.org)

Established in 1888, The Geological Society of America provides access to elements that are essential to the professional growth of earth scientists at all levels of expertise and from all sectors: academic, government, business, and industry.

[National Earth Science Teachers Association \(www.nestanet.org\)](http://www.nestanet.org)

The National Earth Science Teachers Association is a nonprofit 501(c)(3) educational organization, founded in 1983, whose mission is to facilitate and advance excellence in Earth and Space Science education.

[National Science Foundation \(www.nsf.gov\)](http://www.nsf.gov)

The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..." With an annual budget of about \$6.9 billion (FY 2010), we are the funding source for approximately 20 percent of all federally supported basic research conducted by America's colleges and universities.

[Soil and Water Conservation Society \(www.swcs.org\)](http://www.swcs.org)

Soil and Water Conservation Society (SWCS) is a nonprofit scientific and educational organization -- founded in 1943 -- that serves as an advocate for conservation professionals and for science-based conservation practice, programs, and policy.

[Society of Independent Professional Earth Scientists \(http://www.sipes.org/\)](http://www.sipes.org/)

The Society of Independent Professional Earth Scientists (SIPES) is the only national organization designed exclusively for the independent or consulting professional earth scientist. Members include geologists, engineers, geophysicists, geochemists, and other earth scientists.

[Internships \(Nationally and Internationally\) – A Brief Sampling](#)[Chevron Earth Science Internships \(www.careers.chevron.com\)](http://www.careers.chevron.com)

Chevron earth science internships offer the opportunity to work collaboratively with a team to discover new energy reserves. You'll focus on a specific producing field or exploration project, so

the results of your work may have an immediate impact. Along the way, you'll have a chance to evaluate Chevron as a potential employer, while we learn more about your abilities.

[National Council for Science and the Environment \(ncseonline.org/jobs/\)](http://ncseonline.org/jobs/)

The National Council for Science and the Environment (NCSE) offers internships for students and recent graduates throughout the year. Preference is given to students or graduates of the NCSE's University Affiliate institutions. "Semester in Washington" students are encouraged to apply but they will not receive a stipend as they earn academic credit.

[National Science Foundation Summer Research Internships \(www.nsf.gov/crssprgm/reu/index.jsp\)](http://www.nsf.gov/crssprgm/reu/index.jsp)

NSF funds a large number of research opportunities for undergraduate students through its REU Sites program. An REU Site consists of a group of ten or so undergraduates who work in the research programs of the host institution. Each student is associated with a specific research project, where he/she works closely with the faculty and other researchers. Students are granted stipends and, in many cases, assistance with housing and travel.

[NEIU Office of Career Services College Central Network \(www.collegecentral.com/neiu\)](http://www.collegecentral.com/neiu)

The job and internship listing site for NEIU's Office of Career Services.

[Student Conservation Association \(www.thesca.org\)](http://www.thesca.org)

The Student Conservation Association (SCA) is America's conservation corps. Our members protect and restore national parks, marine sanctuaries, cultural landmarks and community green spaces in all 50 states.

Tens of thousands of green professionals, from park superintendents to urban planners, can trace their start to SCA. This is where college and high school students connect with nature, render hands-on service, gain new skills and perspectives, and launch a lifetime of stewardship. SCA's mission is to build the next generation of conservation leaders and inspire lifelong stewardship of our environment and communities by engaging young people in hands-on service to the land.

[USA.gov for Science \(www.science.gov/internships/undergrad.html\)](http://www.science.gov/internships/undergrad.html)

Science.gov searches over 42 databases and over 2000 selected websites from 14 federal agencies, offering 200 million pages of authoritative U.S. government science information including research and development results. The page in question lists internship opportunities from all of these agencies.

Volunteer opportunities (nationally and internationally) – A Brief Sampling

[Americorps \(www.americorps.org\)](http://www.americorps.org)

Often referred to as the "domestic Peace Corps", because both agencies are committed to service. A stint in Americorps usually lasts about ten months. A stipend is included.

[Chicago Community Resource Network \(www.chicagovolunteer.net/\)](http://www.chicagovolunteer.net/)

For over 60 years, the Volunteer Center and First Call for Help have linked people with volunteer opportunities and community resources throughout Metropolitan Chicago. You may search by zip code and field of interest to find opportunities near you.



[National Map Corps](http://nationalmap.gov/TheNationalMapCorps) (nationalmap.gov/TheNationalMapCorps)

The National Map Corps' Web-based data collection procedure presents an opportunity for private citizens to contribute specific geographic knowledge to the USGS's mapping program. By completing a simple registration procedure, volunteers can immediately collect data and provide the location and name of important map-worthy features in their community.

[Peace Corps Volunteers](http://www.peacecorps.gov) (www.peacecorps.gov)[Volunteer.gov](http://www.volunteer.gov) (www.volunteer.gov)

You can utilize this site to search for volunteer opportunities as varied as Natural Resources Planning to Minerals to Weeds/Invasive Species.

Employing Organizations (Nationally and Internationally) – A Brief Sampling[Army Corps of Engineers](http://www.usace.army.mil/) (www.usace.army.mil/)

With environmental sustainability as a guiding principle, our disciplined Corps team is working diligently to strengthen our Nation's security by building and maintaining America's infrastructure and providing military facilities where our service members train, work and live. We are also researching and developing technology for our war fighters while protecting America's interests abroad by using our engineering expertise to promote stability and improve quality of life.

[Environ](http://www.environcorp.com) (www.environcorp.com)

An international consultancy, ENVIRON works with clients to help resolve their most demanding environmental and human health issues. We combine resources across geographic boundaries and technical and scientific disciplines to provide clients with the best, most responsive team—whether responding to existing challenges, evaluating opportunities to improve performance, or seeking to reduce future liabilities. Clients around the world benefit from our unique ability to bring clarity to issues at the intersection of science, business and policy.

[The United Nations](http://www.jobs.un.org) (www.jobs.un.org)

The UN and its family of organizations work to promote respect for human rights, protect the environment, fight disease, foster development and reduce poverty. UN agencies define the standards for safe and efficient transport by air and sea, help improve telecommunications and enhance consumer protection, work to ensure respect for intellectual property rights and coordinate allocation of radio frequencies. The United Nations leads the international campaigns against drug trafficking and terrorism. Throughout the world, the UN and its agencies assist refugees and set up program to clear landmines, help improve the quality of drinking water and expand food production, make loans to developing countries and help stabilize financial markets.

[The US Geological Survey](http://www.usgs.gov) (www.usgs.gov)

The USGS employs the best and the brightest experts who bring a range of earth and life science disciplines to bear on problems. By integrating our diverse scientific expertise, the USGS is able to understand complex natural science phenomena and provide scientific products that lead to solutions. Every day the 10,000 scientists, technicians, and support staff of the USGS are working for you in more than 400 locations throughout the United States.

[The US Government \(www.usajobs.opm.gov\)](http://www.usajobs.opm.gov)

This site serves the employment clearinghouse for the federal government. You can narrow your search by location and/or agency.

Organizations of Interest in Chicago-area – A Brief Sampling[Alliance for the Great Lakes \(www.greatlakes.org\)](http://www.greatlakes.org)

The Alliance works to conserve and restore the world's largest freshwater resource through policy, education and local efforts aimed at preserving the Great Lakes region as a national treasure. It also works with the region's residents, enhancing their understanding of how they can help, too. To that end, we draw on many resources, working with teachers, scientists, economists, legal specialists, government representatives, communities and individuals.

[Chicago Botanic Garden \(www.chicagobotanic.org\)](http://www.chicagobotanic.org)

Located 25 miles north of downtown Chicago, the Garden's 385-acre campus is a living museum that is comprised of 23 display gardens as well as many natural areas.

[Illinois Counties \(en.wikipedia.org/wiki/List_of_counties_in_Illinois\)](http://en.wikipedia.org/wiki/List_of_counties_in_Illinois)

This is a complete list of the 102 counties in Illinois with links to their government pages.

[Illinois Department of Natural Resources \(dnr.state.il.us/\)](http://dnr.state.il.us/)

To manage, conserve and protect Illinois' natural, recreational and cultural resources, further the public's understanding and appreciation of those resources, and promote the education, science and public safety of Illinois' natural resources for present and future generations.

[Illinois Engineering and Environmental Consulting Firms \(www.lrc.usace.army.mil/co-r/consult.pdf\)](http://www.lrc.usace.army.mil/co-r/consult.pdf)

An extensive list of consulting organizations – including contact information – in the state of Illinois.

[Monsanto \(www.monsanto.com\)](http://www.monsanto.com)

Monsanto is an agricultural company. We apply innovation and technology to help farmers around the world produce more while conserving more. We help farmers grow yield sustainably so they can be successful, produce healthier foods, better animal feeds and more fiber, while also reducing agriculture's impact on our environment.

[Morton Arboretum \(www.mortonarb.org\)](http://www.mortonarb.org)

The Morton Arboretum was formally established on December 14, 1922 by Mr. Joy Morton (1855-1934), owner of the Morton Salt Company. Its mission is to collect and study trees, shrubs, and other plants from around the world, to display them across naturally beautiful landscapes for people to study and enjoy, and to learn how to grow them in ways that enhance our environment. Our goal is to encourage the planting and conservation of trees and other plants for a greener, healthier, and more beautiful world.

[URS Corporation \(www.urscorp.com\)](http://www.urscorp.com)

URS Corporation is a fully integrated engineering, construction and technical services organization with the capabilities to support every stage of the project life cycle—from inception through start-up and operation to decommissioning and closure. We offer program management; planning, design

and engineering; systems engineering and technical assistance; construction and construction management; operations and maintenance; and decommissioning and closure services.

On-line Job Boards

(NEIU's Office of Career Services Job Board: www.collegecentral.com/neiu)

http://www.ecojobs.com	http://www.safnet.org
http://www.environmental-jobs.com	http://www.greenbiz.com/jobs
http://www.ejobs.org	http://www.environmental-center.com/jobs.asp
http://www.enviroyellowpages.com/environmentaljobs.html	http://www.wef.org/MembershipCareers/JobBank
http://www.webdirectory.com/Employment/	http://www.environmental-expert.com/
http://www.environetwork.com	http://www.inhs.uiuc.edu
http://www.esa.org/	http://www.elpc.org
http://www.nps.gov/	http://jobs.treehugger.com
http://www.eelink.net	http://www.greencorps.org
http://www.earthworks-jobs.com	http://www.internships-usa.com/BigGreen/envint.htm
http://wfscnet.tamu.edu/	http://www.researchgate.net/jobs/550_Earth_Science
http://www.ars.usda.gov/careers/	http://www.earthsciweek.org
http://www.awra.org/	http://www.illinoislifescience.com
http://www.eceajobs.com	http://www.globalenergyjobs.com
http://www.naturejobs.com	http://www.oilandgasjobsearch.com
http://www.eco.org	
http://www.fisheries.org/	
http://www.ncseonline.org	
http://www.thesca.org	
http://www.epa.gov/careers	
http://www.enviroeducation.com/careers-jobs/	