Clayton H. Riddell Faculty of Environment, Earth, and Resources | University of Manitoba

Geophysics

Facts about a Geophysics degree:

- In Canada, geoscience is a regulated profession. The Major and Honours (4-year) Geophysics programs provide the breadth and depth of study needed to meet the curriculum guidelines set by Geoscientists Canada.
- In addition to providing training in the application of physics and mathematics to study of the Earth, a Geophysics degree provides a basic foundation in geological techniques.
- Major and Honours Geophysics programs include a geophysics field course and opportunities to attend field trips. Students take a 20-day geophysics field course where they use seismic, electromagnetic, gravity, magnetic and radiometric geophysical instruments; learn geophysical survey design, data analysis, and field report writing; and work on projects involving geological and environmental targets.
- The University organizes optional geological field trips every 2 to 3 years to locations such as the Colorado Plateau and the Rocky Mountains.

Areas of Employment

- Petroleum industry
- Mining and exploration companies
- Geophysical service companies: e.g., seismic acquisition, processing, and interpretation.
- Seismic data processing companies
- Environmental consulting companies
- Software development companies
- Engineering firms
- Government departments and agencies (e.g., Geological Surveys/ NASA, Environment Canada, Canada Space Agency)
- Universities
- Professional geoscience consulting

Phone: (204) 474-7252 | Email: riddell.faculty@umanitoba.ca
www.umanitoba.ca/environment
facebook.com/UManitobaRiddellFaculty
twitter.com/riddellfaculty

What Can I Do with a Geophysics Degree?

Skills Possessed by Geophysics Graduates

Many employers are interested in the skills possessed by Geophysics graduates:

- Application of mathematics and physics to study the structure and natural processes in the Earth and its atmosphere and oceans
- Skills used in the exploration for natural resources including minerals, energy resources, and water
- Understanding and mitigating the effects of natural hazards, such as tsunamis, earthquakes, volcanoes and geomagnetic storms
- Computer, research, and analytical skills - including using advanced computing and imaging technologies to investigate the Earth's interior
- Geophysical survey design and operation of advanced instrumentation - including measurement of physical properties such as: the velocity of seismic waves within the Earth, electrical resistivity, radioactivity of rocks, changes in gravity and magnetic fields of the Earth
- Use of applied geophysics techniques in the field
- Technical writing and communication skills

Sample Job Titles

- Exploration Geophysicist
- Seismologist
- Environmental Geophysicist
- Petrophysicist
- Reservoir Geophysicist/Geomodelier
- Well Site Geoscientist
- Crustal Geophysicist
- Depth Imaging Geophysicist
- Earthquake Seismologist
- Electromagnetic Geophysicist
- Mining Geophysicist
- Field Geophysicist
- Petroleum Geophysicist
- Physical Oceanographer*
- Planetary Scientist*
- Geoscience Consultant
- Research Scientist
- Seismic Data Processing Specialist
- Software Support Specialist

*This job may require additional education, specific coursework, technical training or a graduate degree.

Resources

University of Manitoba Career Services - Check our website at: www.umanitoba.ca/student/careerservices
Click on "***Career Connect***" and register as a Student to view current job postings

University of Manitoba | Exploring Occupations | Geophysicist
http://umanitoba.ca/student/careerservices/careerplan/occupations/geologist.html

University of Manitoba | Department of Geological Sciences | www.umanitoba.ca/geoscience

Engineers Geoscientists Manitoba
www.apegm.mb.ca/CareerOpportunities.html

Earth Science Canada | www.earthsciencecanada.com/careers

Physics Today | http://www.physicstoday.org/jobs/profiles/geophysics-jobs

Environmental Careers Organization Canada | www.eco.ca

Clayton H. Riddell Faculty of Environment, Earth, and Resources | Alumni Profiles
www.umanitoba.ca/environment/alumni/alumni_profiles.html