

# ENVIRONMENT AND GEOGRAPHY

**Head:** Dr. Bruce Erickson

**Campus Address/General Office:** 220 Sinnott Building

**Telephone:** 204-474-9667

**Fax:** 204-261-0038

**Email Address:** envgeo@umanitoba.ca

**Website:** [umanitoba.ca/environment-earth-resources/environment-and-geography](http://umanitoba.ca/environment-earth-resources/environment-and-geography) (<https://umanitoba.ca/environment-earth-resources/environment-and-geography/>)

**Academic Staff:** Please refer to the Clayton H. Riddell Faculty of Environment, Earth, and Resources website at: [umanitoba.ca/environment-earth-resources/faculty-staff](http://umanitoba.ca/environment-earth-resources/faculty-staff) (<https://umanitoba.ca/environment-earth-resources/faculty-staff/>)

## Undergraduate Programming in the Department of Environment and Geography

The fields of study in this department can be divided into four overlapping areas: environmental sciences, environmental studies, human geography and physical geography. These areas are built on a diverse range of academic frameworks or foundations, including: natural, physical and social sciences, education, law, agriculture, management, medicine, humanities and architecture.

Environmental Science applies scientific knowledge from many disciplines to issues and questions relating to an increasing human population, the sustainability of resource use, degradation caused by pollution and disturbance, and the endangerment and extinction of

species and natural systems. Environmental Studies applies the theory and practice of group and organizational communication, understanding public policies and programs that underscore environmental concerns, and the need to integrate diverse social, institutional, political and legal considerations inherent in attaining environmental objectives.

(Students have the opportunity to focus advanced studies in one of several areas, defined through consultation with a Riddell Faculty student advisor ([riddell.faculty@umanitoba.ca](mailto:riddell.faculty@umanitoba.ca)). (<https://umanitoba.ca/faculties/environment/undergraduate/advice/>))

"Human Geography examines how people have been influenced by the environment and how, in turn, they have left their mark on the environment," Dr. Daniel Todd, Human Geographer. Students may choose to focus their studies into one of several areas including *Human-Environment Relations, Urban and Rural Development, Social Cultural Geography, Population, Resources and Development, and Area Studies*.

Areas of physical geography include the study of the environment through aspects of atmospheric science, geomatics, biogeography, and hydrology. Streams are currently available in *Atmospheric and Hydrological Sciences, Geomatics* (an emerging subfield, referring to the techniques of spatial data acquisition, handling and analysis) and *Physical Geography*.

Potential careers for graduates of these programs include a diverse array of possibilities in the natural sciences, social sciences, or a combination of both. Graduates are poised to assume positions where they identify and analyze the local, regional, national, and global patterns that shape our lives. As well, technical skills such as geographic information systems and remote sensing are demanded in several of the environmental sectors. Graduates of these programs can expect to enter the workforce in private, government, research, or not-for-profit sectors.

## Programs

| Degree/Diploma   | Years to Completion | Total Credit Hours | Has Co-op Option |
|--|---------------------|--------------------|------------------|
| Environmental Science, B.Env.Sc. General ( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-science-benvsc-general/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-science-benvsc-general/</a> ) | 3                   | 90                 |                  |
| Environmental Science, B.Env.Sc. Honours ( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-science-benvsc-honours/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-science-benvsc-honours/</a> ) | 4                   | 120                | Yes              |
| Environmental Science, B.Env.Sc. Major ( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-science-benvsc-major/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-science-benvsc-major/</a> )       | 4                   | 120                | Yes              |

|  |   |     |     |
|--|---|-----|-----|
| Environmental Science Minor<br>( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-science-minor/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-science-minor/</a> )                             |   | 18  |     |
| Environmental Studies, B.Env.St. General ( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-studies-benvst-general/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-studies-benvst-general/</a> ) | 3 | 90  |     |
| Environmental Studies, B.Env.St. Honours ( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-studies-benvst-honours/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-studies-benvst-honours/</a> ) | 4 | 120 | Yes |
| Environmental Studies, B.Env.St. Major ( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-studies-benvst-major/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-studies-benvst-major/</a> )       | 4 | 120 | Yes |
| Environmental Studies Minor<br>( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-studies-benvst-minor/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/environmental-studies-benvst-minor/</a> )               |   | 18  |     |
| Geography, B.A. Advanced<br>( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/geography-ba-advanced/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/geography-ba-advanced/</a> )  | 4 | 120 |     |
| Geography, B.A. General<br>( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/geography-ba-general/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/geography-ba-general/</a> )   | 3 | 90  |     |
| Geography, B.A. Honours<br>( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/geography-ba-honours/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/geography-ba-honours/</a> )   | 4 | 120 |     |
| Geography Minor ( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/geography-minor/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/geography-minor/</a> )  |   | 18  |     |
| Physical Geography, B.Sc. Honours<br>( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/physical-geography-bsc-honours/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/physical-geography-bsc-honours/</a> )                 | 4 | 120 | Yes |

|  |   |     |     |
|--|---|-----|-----|
| Physical Geography, B.Sc. Major<br>( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/physical-geography-bsc-major/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/physical-geography-bsc-major/</a> ) | 4 | 120 | Yes |
| Physical Geography Minor<br>( <a href="https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/physical-geography-minor/">https://catalog.umanitoba.ca/undergraduate-studies/environment-earth-resources/environment-geography/physical-geography-minor/</a> )                |   | 18  |     |

## Cooperative Education Option

A Cooperative Education Option (<https://umanitoba.ca/environment-earth-resources/coop/>) is available to students registered in either the Major or Honours degree programs in Environmental Science, Environmental Studies, or Physical Geography. Coop is an arrangement whereby students spend alternating periods in university and employment. There are several advantages to a cooperative education program for students. One benefit is that students are able to acquire both theoretical knowledge and practical experience. This experience assists them in selecting areas of specialization for their senior courses in their chosen Focus Area or Stream. As well, Coop assists students in their professional development by enhancing networking opportunities, participation in conferences and workshops and provides the foundation of skills and strategies required in searching and acquiring employment after graduation. Students can also defray some of the costs of their university education through these work term placements. Further information about Cooperative Education and student eligibility is available from the Coop Placement Coordinator (<https://umanitoba.ca/environment-earth-resources/coop/>) available in the Faculty general office.

Students electing to participate in the Cooperative Education Option will be assessed a program fee with their formal admission into the program. Once a student has accepted a position with a Coop employer, no portion of the program fee will normally be refunded.

The Cooperative Education Option consists of two employment work terms, each over a minimum period of four months, and contributes 6 credit hours towards the four year degree program. Students complete ENVR 2900, ENVR 3900, work term placements ENVR 3980, ENVR 3990, and the work term report courses ENVR 3910 and ENVR 3920. Additional work terms are available to interested students. Each academic term and each employment term commence in January, May or September. While on an employment term, a Cooperative Education Option student is not permitted to take more than three additional credit hours of academic work outside of the requirements of the Coop placement without permission of a Riddell Faculty student advisor.

Students are required to register in the appropriate Coop courses and pay course fees prior to beginning their placement.

For more information, please visit the Riddell Faculty Co-operative Education Program (<https://umanitoba.ca/environment-earth-resources/coop/>) webpage.