



**RUSS EDWARDS  
SCHOOL**  
Agriculture & Environment

Eligible for  
**FINANCIAL AID  
& AWARDS**

# LAND & WATER MANAGEMENT

2-Year Diploma

Learn how ecosystems are affected by soil, water, plants and animals, and how the diversity and health of these organisms serve as the foundation for the program's capstone project. In this project, students collaborate with industry partners to solve local environmental challenges while balancing land use challenges.

## PROGRAM LEARNING OUTCOMES

- ▶ Demonstrate a comprehensive understanding of environmental science, including principles of ecology, geology, hydrology, and soil science.
  - ▶ Apply advanced skills and techniques for the monitoring, assessment and management of land and water resources, including the use of GIS and other geospatial tools.
  - ▶ Evaluate the environmental impacts of various land use practices and develop strategies to mitigate negative impacts and promote sustainable land management.
  - ▶ Analyze and evaluate the regulatory and policy frameworks governing land and water management, and develop strategies to navigate complex legal and regulatory environments.
  - ▶ Design and implement environmental management plans, in collaboration with stakeholders, that promote sustainable land and water use practices.
  - ▶ Apply techniques for land reclamation and restoration, including soil remediation, erosion control and habitat restoration.
  - ▶ Evaluate the economic and social implications of different land and water use practices, and develop strategies to optimize sustainable and equitable land use.
  - ▶ Apply advanced techniques for water management, including water conservation, water quality monitoring and water treatment.
  - ▶ Evaluate the impact of climate change on land and water resources, and develop adaptation strategies to mitigate risks and promote resilience.
  - ▶ Communicate effectively with diverse stakeholders, including landowners, policymakers, community members, and industry professionals, about land and water management issues and solutions.
  - ▶ Apply principles of environmental ethics and sustainability to their work in land and water management.
- For a full list of program learning outcomes, visit [assiniboine.net/landandwater](https://assiniboine.net/landandwater).



**Campus/Delivery Options**  
Victoria Avenue East campus



**Available Intakes**  
September



**Work Integrated Learning**  
16 weeks

## You might be a good fit for this program if you would enjoy:

- ▶ A career managing land and water resources, and ensuring their long-term sustainability.
- ▶ Working outdoors in a variety of terrains and regions.
- ▶ Learning how to incorporate sustainable land and water management practices across a variety of landscapes.
- ▶ Collecting, organizing and analyzing data to solve problems.
- ▶ Interpreting and applying various acts, regulations, policies, and procedures.
- ▶ Working in a variety of urban and rural communities and different ecological settings.

## EXPECTATIONS

### Program & Industry

- ▶ Be able and willing to travel. A valid driver's license and access to a vehicle is strongly recommended given the need to travel for outdoor field lab activities and your work co-op placement.
- ▶ Work in outdoor settings in varied terrain.
- ▶ Ability to quickly problem solve and deal with stakeholder conflicts and complaints in a professional manner.
- ▶ Have physical strength and stamina, as well as the mobility and motor skills, to undertake the required tasks.
- ▶ Operate equipment as required.

## CAREER OPPORTUNITIES

- ▶ Compliance (conservation)
- ▶ land use planning
- ▶ water quality and quantity management
- ▶ environmental consulting
- ▶ wildlife management
- ▶ environmental health and safety
- ▶ watershed districts

## ADMISSION REQUIREMENTS

- ▶ A complete Manitoba Grade 12 or equivalent
- ▶ English 40G/40S or equivalent
- ▶ Pre-calculus or Applied Mathematics 40S or equivalent

Applicants who have Mathematics 40G, Mathematics 301 or Consumer/Essential Mathematics 40S will be required to write a mathematics assessment test to assess their eligibility for admission.

# NEXT STEPS

Confidence in the career path you choose to embark on is key and selecting the right program for you is the first step. At Assiniboine, we offer an opportunity to explore and experience a program before applying. Choose to:

## SPEND A DAY WITH US

Our Spend a Day program runs from November to March for most programs. When you spend a day at Assiniboine, we partner you with a current student in the program of your choice so you have the opportunity to:

- ▶ Participate in classroom activities
- ▶ Experience college life
- ▶ Explore all of our helpful services for students
- ▶ Meet current college students and instructors
- ▶ Enjoy a free lunch on us!

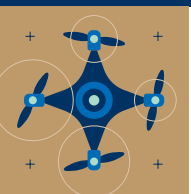
[assiniboine.net/spendaday](http://assiniboine.net/spendaday)

## ATTEND AN INFO SESSION

Join our free live online info sessions to get the inside scoop on your program of interest and life at Assiniboine. Register in advance and log in from home to learn about Assiniboine.

[assiniboine.net/infosessions](http://assiniboine.net/infosessions)

Ready to Start?  
**APPLY NOW!**



[assiniboine.net/horticultural](http://assiniboine.net/horticultural)