



Master of Geomatics for Environmental Management (MGEM)

To solve the world's biggest environmental challenges, first, you need the tools to understand them.

The University of British Columbia's Master of Geomatics for Environmental Management (MGEM) is an accelerated, 9-month, professional master's degree program that provides essential training in the use and application of geospatial tools used to plan, develop, manage, and evaluate programs to protect and regulate natural habitats and renewable natural resources.

Why Choose the MGEM Program?

The use of geospatial data, tools, and technologies is crucial for making informed decisions that impact environmental management. This interdisciplinary degree blends landscape ecology training and quantitative spatial skills development to prepare graduates to tackle pressing environmental issues across multiple sectors.

Get hands-on experience

Apply geospatial data to real-world challenges in environmental management through labs, projects, and workshops.

Expand your professional toolkit

Gain expertise in geomatics technologies, methods, and tools grounded in emerging landscape ecology theories and principles.

Connect with people from around the world

As a globally acclaimed faculty, we proudly welcome students from over 40 countries annually. The MGEM program reflects this diversity, attracting individuals world-wide.

Learn from the best in the field

Courses are taught by our world-class faculty, including courses that integrate professional communication and diverse knowledge systems. Students also gain opportunities to meet and be mentored by working professionals.

What Will You Learn?

This 9-month professional master's program combines a mix of theory and hands-on learning, beginning with a week-long program launch which includes an orientation and weekend retreat.

- A Landscape Ecology and Management course focuses on landscape quantification modeling and environmental management.
- Analytical and quantitative courses in GIS, remote sensing, image processing, spatial statistics, spatial data analysis, and programming such as R and Python
- Sector-focused project management training

As an MGEM graduate, you will be equipped to:

- Model landscapes and ecosystems for planning and assessment
- Integrate geospatial, ecological management theories with geomatics tools and programming to tackle real-world issues
- Use geospatial data to address environmental concerns
- Work in a variety of sectors – including academia, consulting, industry, government, NGOs, and the private sector



For more information:
<https://forestry.ubc.ca/mgem/>

UBC Forestry