



MSc Position in Soil and Environmental Science (Field-Based Research)

Grenfell Campus, Memorial University of Newfoundland, Canada

Location: Larch Grove Farm, Cormack, and Grenfell Campus, Memorial University of Newfoundland, Corner Brook, Newfoundland and Labrador, Canada

Department: School of Science and the Environment, Boreal Ecosystems and Agricultural Science Program (BEAS)

Research Group: Laboratory for Environmental and Analytical Nanogeochemistry (LEAN)

Duration: 2 years (full-time)

Funding: Fully funded

Anticipated Start Date: May 2026 or September 2026

Project description

A fully funded MSc position is available for a highly motivated student to join a field-based research project investigating the agronomic and environmental impacts of industrial by-product amendments on agricultural soils by evaluating plant growth response, nutrient dynamics, and contaminant bioavailability. Specifically, the project aims to transform industrial wood ash and paper sludge by-products into sustainable, value-added products for agriculture and industry in NL and beyond. The candidate will join a dynamic research team with opportunities for collaboration with agronomists, soil scientists and hydrologists. The student's MSc thesis will focus on the experimental plot and associated monitoring of soil and water in treated and untreated fields; however, the specific focus of the research and associated hypotheses will be negotiated between the student, their supervisor(s), and the larger project Supervisory Team.

Location and Research Environment

Grenfell Campus is in Corner Brook, Newfoundland and Labrador, on the east coast of Canada, surrounded by the natural beauty of the boreal forest and the North Atlantic coastline. The region provides outstanding opportunities for combining outdoor recreation with field-based environmental research. The campus is located near Gros Morne National Park, a UNESCO World Heritage Site known for its dramatic landscapes, fjords, and geological significance. Students have access to a wide range of outdoor activities including hiking, skiing at Marble Mountain, kayaking, and wildlife viewing. The region is also known for seasonal opportunities to observe whales, seabirds, and icebergs along the coast. Grenfell Campus also has a strong research connection with the Bonne Bay Marine Station, which offers affordable room rentals for students and researchers, making it an ideal location for field-based learning and collaborative research retreats.

Responsibilities

The MSc student will:

- Assist in establishing and maintaining field plots.
- Design, establish and maintain the field plots
- Apply soil amendments according to experimental design.
- Conduct regular soil and plant sampling and measure crop growth parameters.
- Perform laboratory analyses (e.g., contaminants) and characterize amendment materials (e.g. neutralizing value, contaminants, nutrients)
- Monitor environmental parameters (e.g. soil and water quality, rainfall effects)
- Analyze data using statistical software.
- Present research findings at conferences and publish in peer-reviewed journals.



- **Important Note:** *This position requires frequent travel to the field, sometimes when the temperatures are hot and/or cold. Applicants should therefore clearly state in their cover letter that they are willing and able to undertake fieldwork under typical Newfoundland climate conditions between March and December.*

Training and Research Environment

The student will be based in the LEAN team, which focuses on developing and using advanced analytical approaches for understanding nanoscale processes in environmental systems. The project provides interdisciplinary training in analytical chemistry, agriculture, environmental geochemistry, and environmental data science. Students will also benefit from collaboration with an international research network specializing in nanogeochemistry and environmental analysis, with potential opportunities to work with other researchers in Canada and/or Europe.

Desired Skills and Qualifications:

- A BSc degree in agricultural, biological or environmental science, chemistry, or related fields with a strong academic standing
- Experience in conducting field and/or laboratory experiments (e.g. pot and leaching experiments)
- Data analysis and modelling skills
- Ability to work independently and as part of a multidisciplinary research team
- Strong analytical and critical thinking skills, with the ability to work independently and collaboratively in a multidisciplinary team
- Canadian driver's license or equivalent will be considered an asset
- For international applicants, eligibility to obtain a Canadian study permit and proof of English language proficiency (e.g., IELTS or equivalent) that meets the admission requirements of Memorial University of Newfoundland

How to Apply:

Interested candidates should submit the following documents as a single PDF file on/before April 30, 2026.

- A cover letter outlining your motivation and suitability for this position
- 1- page proposal for your MSc research
- A detailed CV highlighting relevant experience and skills
- Academic transcripts (unofficial copies are acceptable)
- Contact information for two or three academic references

Please send applications or inquiries to:

Contact: Dr. Chad Cuss [ccuss@mun.ca] and Dasinaa Subramaniam [Email: dsubramaniam@mun.ca]

The LEAN Team and Memorial University are committed to employment equity and diversity. While all qualified individuals are encouraged to apply, applications are especially welcome from qualified individuals identifying as members of one or more of the following underrepresented groups: first-generation university students; Indigenous peoples; people with disabilities; people of any sexual orientation, gender identity, or gender expression; visible minorities and racialized people; and women. Applicants are invited to identify themselves as a member of any or several of these designated group(s) in their cover letter as appropriate. This information will be treated as strictly confidential and will be destroyed after the recruitment process is complete. Applicants from a designated group who choose not to specify the group may instead identify themselves as “a member of a nonspecific designated group”.