



LaurentianUniversity
Université**Laurentienne**

HARQUAIL School of Earth Sciences
École des sciences de la Terre

MSc opportunity in Precambrian Tectonics

Project SP2022-MSc: Metamorphic evolution of the Winnipeg River gneisses, Ontario, Canada

This MSc project aims to document the metamorphic history of the Winnipeg River gneisses, between Sioux Lookout and Kenora, north-western Ontario. This Eo- to Neoarchean “pinkstone” belt represents the basement of the western Wabigoon greenstones to the south and English River turbidites to the north. The presence of dome and keel geometries, such as the Twilight-Mystery-Cedar domes, bounded by regionally extensive deformation zones and crosscut by dike and sill networks, provides a unique opportunity to investigate metamorphic trends associated with different Archean tectonic patterns.

Two N-S metamorphic transects, ~40 km long, will be investigated: the first transect will go across the Twilight-Mystery-Cedar domes, along hwy 105. The second will be west of Sioux Lookout, across the English River / Winnipeg River / Wabigoon boundaries. An average of one sample per kilometre along each transect is expected. Mineral chemistry of amphibole, pyroxene, garnet or any relevant mineral part of the metamorphic assemblage will be conducted using electron-probe micro-analyses (EPMA).

The main goals of the project will be to i) document the P-T-t conditions along the two targeted transects, and ii) interpret the metamorphic trends and propose a metamorphic model integrating these new results with previous knowledge on the structural evolution of the region.

The MSc candidate will be based at Laurentian University. Extensive field/boat work in north-western Ontario from June to August 2022 is expected. Applicants must possess a BSc degree in geosciences and have a minimum average grade of 80%. Research experience in field structural mapping and/or metamorphic petrology is an asset. Research funding (NSERC Discover Grant) consists of the student stipend (CA\$25k including a Laurentian Teaching Assistantship), analytical and field travel costs for the duration of the project (2 years). The project will begin as soon as a suitable candidate has been found.



LaurentianUniversity
Université**Laurentienne**

HARQUAIL School of Earth Sciences
École des sciences de la Terre

To apply, please email your application to sperrouty@laurentian.ca. The application package must include a cover letter, CV, academic transcripts, contact details and names of three referees. Only short-listed applicants will be contacted.

Laurentian University is a bilingual (French-English), tri-cultural institution. Laurentian University especially welcomes and encourages applications from members of visible minorities, women, aboriginal persons, members of sexual minorities and persons with disabilities. Applicants may self-identify as a member of an employment equity group. All qualified candidates are encouraged to apply. However, Canadians and permanent residents will be considered first for this position.

The University's Policy and Program on COVID-19 Vaccination is available [here](#). By submitting an application to Laurentian University you acknowledge that you have read the Policy and Program. Should you be successful in securing employment at Laurentian University you are aware that this would be a precondition of your employment. The University will require that the successful candidate submit proof of full vaccination or receive an approved exemption as outlined in the Policy and Program. Failure to comply may result in a delay to the start of employment and/or the employment offer may be deemed void resulting in your employment contract ending without notice or payment in lieu of notice or any other payment.