



Faculty of Science

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I am pleased to offer a new fully funded MSc graduate research opportunity at Memorial University of Newfoundland. This work will focus on the tectonic evolution of the eastern Gander margin, Newfoundland, which is part of the Appalachian mountain system. This project will aim to begin in the spring or summer of 2022.

The eastern Gander margin in northeast Newfoundland was deformed, metamorphosed and intruded as it collided with the Avalon terrane to the east. In the Gander terrane, subgreenschist-facies metasedimentary rocks occur in the west and transition into the amphibolite-facies and migmatites towards the east. These rocks record a complex structural history punctuated by igneous and metamorphic overprints that are not well correlated with regional orogenic episodes.

This work will involve detailed field investigations and (micro)structural analysis to determine the deformation history of the region and the special-temporal evolution of structures. Geochronology of accessory minerals (LA-ICPMS, TIMS; U-Pb zircon, monazite, titanite) will be conducted to constrain the ages of protoliths, the various deformation phases and associated metamorphic events. Prospective students should be highly motivated and have a strong interest in structure, tectonics and geochronology. All analyses will be performed at Memorial University in the CREAT Laboratories (<https://www.mun.ca/creait>), which will allow for hands-on learning environment. Interested students are encouraged to send a CV and brief interest statement to myself (ethiessen@mun.ca).

Sincerely,

Eric Thiessen, PhD
Structural Geology and Tectonics
Assistant Professor