

Applied Glaciology: Masters

A newly developed mine in Northern British Columbia is accessed across 11km of glacier using an all-weather truck road that requires intensive monitoring and maintenance. This critical route is subject to a range of hazards due to ice movement, avalanches, melting and flooding. Climate change is leading to ongoing retreat, lowering the ice surface, steepening road grades and degrading the ice.

Studies are underway to monitor and comprehend the dynamics of the glacier as a basis for informed management of safe, sustainable access. Recent modelling work (Clarke et al. 2015 Nature April 2015 DOI: 10.1038/NGEO2407) projects ice dynamics and retreat through the 21st century, and will be used to anticipate long term evolution and access policies.

A student with a background and interest in glacier studies, mapping and GIS is sought to work on this project. Work will involve field work with a large operation in challenging conditions, and require fitness and strict adherence to safety protocols.

The project will provide excellent field training in glaciology and valuable experience with mining operations in remote sites.

