

Current Research Opportunities for Prospective Graduate Students 2026-2027

Physical Geography, GIS and Remote Sensing

George Bevan (bevan@queensu.ca)

- Looking for students, M.Sc. or Ph.D.
- Mapping of cultural heritage using GIS, photogrammetry and remote sensing techniques
- Synthetic Aperture Radar processing and interpretation (Polarimetry, Interferometry, PSI, SBAS)

Dongmei Chen (chendm@queensu.ca)

- Looking for one or two students, M.Sc., or Ph.D.
- Machine learning and AI-based methods for change detection from time series remotely sensed data for different applications.

Ryan Danby (ryan.danby@queensu.ca)

- Looking for one or two students, either M.Sc. or Ph.D.
- Reconstructing forest history from tree rings. The student would conduct sampling and analysis of remnant trees and cross-reference their results with historical records to reconstruct forest history in eastern Ontario. This has important implications for identifying targets and conditions for ecosystem restoration.
- Spatial pattern analysis of forest-tundra ecotones. The student would use GIS to analyze landcover data from treeline environments to compare patterns in latitudinal (arctic) and altitudinal (alpine) environments. This is important for understanding the potential for forests expansion as climate continues to warm.

Melissa Lafrenière (Melissa.Lafreniere@queensu.ca)

- The relationship between landscape features and hydrological and biogeochemical processes involving carbon, nitrogen, phosphorus, contaminants, and metals in High Arctic ponds, lakes and rivers.
- Combining UAV techniques and field measurement to map snow depth, and calculate catchment wide snowmelt water runoff, soil moisture and DOM concentrations.
- Investigating how climate warming, impacts groundwater contributions to runoff and catchment biogeochemical processes across different geomorphic features in permafrost watersheds.

The projects are ideally suited for PhD students (or 1 PhD and 1 MSc), starting September 2026, with possibility of field work in summer 2026.

Warren Mabee (warren.mabee@queensu.ca)

- Looking for one new PhD and one new MSc per year.
- Assessing energy systems with a focus on transition to renewable energy systems to support a net zero vision.
- Combining geographic information systems analysis of renewable resources with techno-economic and life cycle assessment work on different technologies and applications.
- Focus on a wide range of technologies including biomass, wind, solar, small hydro, tidal, and geothermal, as well as conventional and nuclear technologies.

Christopher Omelon (c.omelon@queensu.ca)

- Looking for two or three students, M.Sc. and Ph.D.
- To document landscape conditions (e.g., surface water chemistry and hydrology, soil moisture and active layer dynamics, vascular plant abundance and diversity, carbon fluxes, and microbial activity and diversity) in a high Arctic setting to provide a baseline for changes due to climate warming.
- To understand the extent of talik environments in continuous and discontinuous permafrost, their thermal, hydrogeochemical, and microbial characteristics, and the potential biogeochemical impacts due to permafrost thaw and subsequent hydrologic connectivity with surface and subsurface environments.
- Studies will use field- and laboratory-based hydrological, geophysical, geochemical, and molecular approaches to characterize and understand complex processes.
- Opportunities for fieldwork in the Canadian Arctic and advanced training in analytical and imaging techniques including isotope ratio mass spectrometry, optical emission spectroscopy, ion chromatography, x-ray diffraction and electron microscopy.

Neal Scott (neal.scott@queensu.ca)

- Looking for one or two students, M.Sc. or PhD.
- Understanding the impact of climate change on High Arctic ecosystems by studying critical cycles of carbon and nitrogen. Current focus on methane cycling and integrated terrestrial/aquatic studies to understand total C and N budgets in High Arctic catchments.
- Modeling and measuring the impact of novel bio-inoculants on nitrogen cycling in agricultural systems.
- Impacts of land-use history on forest structure, function, and resilience to future changes in climate.
- Quantify changes in soil quality associated with establishment of “Little Forests” in urban environments.

Ian Strachan (ian.strachan@queensu.ca)

- Funded opportunities available for PhD and/or MSc students for 2026 in the theme of carbon exchange in restored peatlands previously disturbed by harvesting operations. This research is in collaboration with University, Government, NGO and Private Sector partners.
- Students will receive training on field-based measurement approaches (including chambers and eddy covariance) for CO₂ and CH₄ fluxes to investigate the environmental and management controls on greenhouse gas exchange

Laura Thomson (l.thomson@queensu.ca)

- Looking for one or two students, Ph.D.
- PhD Project 1: Focused on geophysical methods to support the measurement and modelling of Arctic glacier thermal regimes and erosive capacity, with a focus on the cold-based and polythermal glaciers of Axel Heiberg Island, Nunavut. Geophysical methods will involve the collection and analysis of ground- and helicopter- or drone-based ice penetrating radar surveys over regional glaciers, and will be paired with finite-element/spectral-element modeling approaches to determine the evolution, and trajectory, of glacier thermal regimes in the Canadian Arctic.
- PhD Project 2: Focused on quantifying the geochemical dynamics and carbon sequestration potential of Arctic proglacial environments. Fieldwork will be based in the Expedition Fiord region of Axel Heiberg Island, Nunavut, which provides access to both glacial and non-glacial catchments with variable vegetation cover in a diverse geological setting. The successful applicant will help to establish a new hydrological monitoring program in the region, and will lead the planning, collection, and analysis of water and sediment samples collected over 2-3 field seasons.

Human Geography

Grace Adeniyi-Ogunyankin (goaa@queensu.ca)

- Looking for one student, M.A. or Ph.D.
- I am looking for someone interested in youth cultures and the African urban.

Laura Cameron (cameron@queensu.ca)

- Looking for one student, M.A. or Ph.D.
- Looking for a student interested in historical geographies of nature and joining the Sonic Arts of Place (SAP) Lab.

Dan Cohen (dan.cohen@queensu.ca)

- Looking for one or more students, M.A. or Ph.D.

- I am recruiting graduate students (MA or PhD) working in economic geography, especially the study of markets and finance. Students may propose their own project. Please see more details on my faculty website: <https://www.queensu.ca/geographyandplanning/people/cohen-dan>

Julia Christensen (julia.christensen@queensu.ca)

- Multiple M.Sc. or Ph.D. students.
- Collaborative research with northern and Indigenous communities on northern housing, social determinants of health and experiences of homelessness.
- Climate change, housing and infrastructure in northern Canada.
- Planning, settler colonialism and housing in northern and Indigenous communities.
- Indigenous home sovereignties in northern Canada.
- Northern and Indigenous students are particularly encouraged to apply.

Carolyn Prouse (cpv@queensu.ca)

- Looking for MA students.
- Will supervise students interested in critical geographies of infectious disease surveillance; feminist and anticolonial Science and Technology Studies and health; geopolitics of biosecurity
- Candidates will work with other students, postdocs, and faculty in the cross-Canada <https://biosecuritiesgeog.ca> lab.

Mark Stoller (mark.stoller@queensu.ca)

- I am looking for MA or PhD student(s) with interests in Arctic Canada on topics of Inuit history and the historical, social, and political geography of Nunavut.
- The Hivumuuniatqutugut Oral History Project, based in Gjoa Haven, Nunavut, works with youth and Elders to film and document the rich oral history of western Nunavut. I am seeking students with strong interests in oral history and/or digital humanities to catalogue and analyze an extensive collection of oral history film footage.
- I am also seeking students with interests in social and transportation geography to examine commercial aviation in northern Canada. This research involves researching the evolution of commercial aviation in the Arctic and examining potential impacts of climate change and economic changes in the Arctic.

Students will receive training in working with Indigenous oral history materials, film and media, and qualitative research methods. Research may involve travel to Nunavut and the Northwest Territories.

Urban and Regional Planning

Ajay Agarwal (ajay.agarwal@queensu.ca)

- Looking for one or two MA/MPL or PhD students.
- Research on topics in Transportation Policy Planning including active transportation, public transit, environmentally responsible travel behavior .

- Research to address transportation challenges experienced by Older Adults (aged 65+), particularly women and/or immigrants who do not drive.

Patricia Collins (patricia.collins@queensu.ca)

- Looking for one or more students, MA or PhD
- Looking to supervise graduate students interested in the fields of health geography, healthy built environments, and healthy community planning. Students may propose their own project or choose to work on an existing project in the areas of street rebalancing initiatives and sustainable transportation interventions. You can learn more about my program of research by visiting www.healthycityprof.com.

David Gordon (gordond@queensu.ca)

- Looking for one or two MA or MPL students
Research Topics:
 - Topics to support the [Canadian Planning Histories Digital Library](#) that we have underway, such as content analyses and indexes for planning journals
 - Archival research on the early histories of planning in Kingston
 - Archival research on the early histories of planning in other medium sized Canadian cities (Not Toronto, Montreal, Ottawa or Vancouver, which have been done...)
 - Studentification of Canadian cities

Maxwell Hartt (m.hartt@queensu.ca)

- Looking for one Ph.D. student and one MPL or MA student.
- I am recruiting students interested in the economic, social, cultural, and urban planning implications of shrinking and aging cities to join the [Population and Place Research Lab](#).