

Summer 2023 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region.

- Visit the [Sustainability Scholars Program website](#) to learn [how the program works](#) and to [apply](#).
- Be sure to review the application guide on the Apply page to confirm your eligibility before applying.

Applications close at midnight on Sunday March 12, 2023.

List of currently available projects

[2023-009 Research to understand the impact of climate change on health care facilities now and in the future](#)

To date, climate risk and resilience work for new and existing health facilities has mostly been completed on a site-by-site basis. The intention of this proposed project is to employ a more systematic approach and evaluate numerous sites at the same time via the use of a portfolio-level climate hazard exposure screen.

The degree to which a site is exposed to climate hazard depends largely on location, site layout, and design. Determining exposure involves looking at both historical occurrences (e.g., past flooding events) and possibilities under future climate conditions (e.g., changing floodplains due to sea level rise). Information sources might include provincial or municipal hazard maps, extreme event reports, and future climate projections, among others.

A portfolio-level climate hazard exposure screen is completed simultaneously for groups of buildings and/or sites in similar geographical regions, rather than for an individual site. Outcomes will generally include a list of climate change-related hazards relevant to the studied sites, and potential impacts to be considered at the sites moving forward.

Ideal for planning and geography students, and students with knowledge of the project scope.

[2023-031 Developing an UNDRIP framework to advance Indigenous climate and energy resilience education & mentorship programs](#)

The purpose of the project is to develop a framework that embeds actions from the [United Nations Declaration on the Right of Indigenous Peoples \(UNDRIP\)](#) to improve policies, practices, and relationships to strengthen the efficacy of the Fraser Basin Council's climate and energy resilience education and mentorship programming for Indigenous communities.

SUSTAINABILITY SCHOLARS PROGRAM

Among other things, the project work will include: best practices research on UNDRIP focused frameworks in BC and Canada, interviews with organizations that have implemented frameworks that advance implementation of UNDRIP, and a strengths, opportunities, aspirations, and results (SOAR) analysis.

This project would be ideal for policy, education, law, social work and planning students as well as students familiar with UNDRIP and/or who have strong analytical, research, and writing skills. Students that are also familiar with climate and energy issues in remote Indigenous communities, would be well suited for this project as well.

2023-049 Graphic visualisation of the lower Fraser River through a non-Western lens

The purpose of this project is to synthesize a holistic overview of the current status and health of the Fraser River in the section overlooked by the Fraser River Discovery Centre (FRDC) (approximately the Pattullo Bridge to the Queensborough bridge) and prepare a graphic rendering of the current status.

While many people see the Fraser everyday, not many consider how it has already changed drastically and will continue to do so as the impacts of climate change proceed. Providing a contemporaneous overview of what they can see from the FRDC (or revealing what may be hidden to them) allows for the initiation of deeper conversations with the FRDC's audience. The visualization will involve original art/design and will specifically identify evidence of climate change visible from the FRDC.

Ideal for architecture/landscape architecture and civil engineering as well as students with fine arts or graphic design backgrounds.

2023-053 Best practices research to inform an Urban Indigenous partnership model for the City of Vancouver

The purpose of this project is to understand Reconciliation themed partnership models as the City of Vancouver strives for accountability in creating a community data governance model. The project will identify the gaps and opportunities applicable to the City and the Urban Indigenous population of Vancouver working together in partnership in a proposed data governance model.

The Scholar will undertake a best practice scan of case studies from other municipalities, health authorities, universities, and non-profit organizations of different sizes who have developed partnerships and similar types of governance models with Urban Indigenous Peoples so the City can follow best practices in creating a data governance system with a decolonizing lens. This project will provide context to support the development of best practices in data ethics policy and practice, and will help guide the City's Urban Indigenous Data Governance recommendations for winter 2024.

Ideal for policy, planning, law and IRES, students as well as students with strong research, analysis and writing skills. Students familiar with data governance, Indigenous data collection and use, and partnerships models would also be well suited for this project.

2023-055 Research to map seasonal tree leaf debris accumulation scenarios in a changing climate

SUSTAINABILITY SCHOLARS PROGRAM

Keeping catch basins free of leaf litter is critical for flood prevention as the City of Vancouver works toward adapting city services to ensure assets are resilient to climate change, and ensuring bike lanes are free from hazards such as wet cherry blossoms or high volumes of walnuts.

The purpose of this project is to understand how changing environmental variables, vegetation cover, and urban forestry efforts might influence street cleaning programs to improve bicycle safety and reduce flood risks. We are specifically interested in identifying tree species with different rates of leaf senescence and abscission (leaf fall), categorizing local species based on the timing of abscission, and understanding climatic variables that can alter the timing of leaves falling from the trees. We also want to identify opportunities to optimize sanitation operations based on leaf debris patterns and high-risk flood areas using GIS data. Ultimately, we hope to develop maps to inform crews of locations of high vegetative debris based on tree types and season.

Ideal for students with backgrounds in botany, ecology, forestry, urban forestry, geography, or plant science; as well as students with adequate knowledge of the project scope. Must be familiar with GIS.

[2023-056 Researching opportunities to reduce financial barriers to purchasing zero emissions commercial vehicles](#)

Commercial fleets represent a significant portion of Vancouver's transportation emissions (39% of our total greenhouse gases) and small fleet-owners are a significant user group within Vancouver's community of small and medium enterprises. Many businesses are struggling to access zero emission vehicles (ZEVs) because of supply chain issues, internal capacity gaps, and high capital costs (despite long-term savings that will accrue over the lifetime of the vehicle). These high upfront costs are a particular problem, and innovative financing and funding mechanisms, such as energy savings contracts, bulk-purchasing, and vehicle sharing, have the potential to address these barriers.

This project will study innovative financing for purchasing decarbonized commercial vehicles for fleets. It will look at best practices from other jurisdictions as well as engage with local stakeholders to understand what programs work elsewhere, and which may be best suited to the Vancouver context.

A great project for economics, planning, law and business students, as well as those studying transportation models and zero emissions vehicle uptake.

Applications close **midnight Sunday March 12, 2023**

Apply here: [Click here to apply](#)

Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions