

Fall 2022 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Hub 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](#) to confirm your eligibility before applying.

Applications close at midnight on Sunday September 18, 2022.

Project title: Building a BC-specific Greenhouse Gas Transportation Inventory

Project Background & Overview:

The Government of British Columbia has legislated greenhouse gas (GHG) emission reduction targets of 40% for 2030, 60% for 2040, and 80% for 2050, with plans to revise these targets to be net-zero by 2050. Progress to these targets is measured through the annual provincial GHG inventory (PI). To ensure that progress to targets is accurate and responds to policy mechanisms, the BC government is developing “bottom-up” GHG inventory methods. These methods use BC-specific data as inputs, where available, instead of nationally derived inputs. This ensures that policy mechanisms (e.g., zero emission vehicles, cleaner burning fuels, etc.) are reflected in the PI.

Project description

We are seeking a UBC Sustainability Scholar to support the work of the BC Government by conducting a jurisdictional scan of ‘bottom-up’ greenhouse gas inventory improvements globally and reporting back on best practices – along with any documentation and data collected. ‘Bottom-up’ approaches seek data that is more localized to use as inputs for GHG accounting as compared to nationally derived surveys, data, etc. To this end, the Scholar will also report back on how these “bottom-up” inventories are reporting on progress to climate targets/objectives. The Scholar will also run two inventory models with the output being mega tonnes of greenhouse gases for on-road and off-road transportation. The outputs will provide BC Government staff with information needed to update the annual Provincial Greenhouse Gas Inventory. The output will provide estimates on emissions from 1990 to 2021 for road transportation and off-road transportation emissions.

Project scope

The Scholar will conduct a jurisdictional scan, involving phone interviews and literature reviews, of current efforts by other governments to develop a “bottom-up” GHG inventory. The Scholar will operate the GHG transportation models (road and off-road), owned by the BC government, to estimate emissions from 1990 to 2021.

SUSTAINABILITY SCHOLARS PROGRAM

The work will include:

- Becoming familiar with the two GHG transportation models – road and off-road (requires Excel and Python programming language experience).
- Working with BC government staff to engage with other sub-national jurisdictions to investigate other “bottom-up” inventory approaches and best practices.
- Compiling necessary data inputs to run the GHG transportation models and run the model.
- Updating the method book with any new information as relevant.

Deliverables

- A report summarizing the jurisdictional scan and interviews on the current state of “bottom-up” inventory improvements globally and identified best practices that BC government should consider pursuing.
- An Excel workbook of road transportation emissions, as an output of the GHG transportation model, and accompanying method book.
- A final report for the online public-facing [Scholars Project Library](#).

Time Commitment

- This project must be completed between October 17, 2022 and March 15, 2023
- The scholars are to complete hours between 9 am and 5 pm, Monday to Friday, approximately 10 to 12 hours per week.

Required/preferred Skills and Background:

- Familiarity with Python and Excel
- Excellent research and writing skills
- Familiarity with greenhouse gas accounting practices
- Project management and organizational skills
- Knowledge about transportation emissions and policies to reduce these emissions
- Ability to work independently
- Strong inter-personal skills

Applications close **midnight Sunday September 18, 2022**

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

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

Useful Resources

Below are some links to useful resources to help you with your resume and cover letter (there are many more online). Some of these resources also provide information on preparing for your interview.

<https://students.ubc.ca/career/career-resources/resumes-cover-letters-curricula-vitae>

<https://www.grad.ubc.ca/current-students/graduate-pathways-success>

<https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services>