

## 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 January 29, 2023.**

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## Project title: Calculating Greenhouse Gas Emissions Reductions from Averting Catastrophic Wildfire through Indigenous Cultural Burning

### **Project Background & Overview:**

With increases in the mean global temperatures, the precipitation and temperature patterns of British Columbia, alongside 100 years of fire suppression, are contributing to the size, intensity and probability of catastrophic wildfire. In order to reduce the frequency and severity of these wildfires, many Indigenous nations are reinvigorating their millennia-old practices of cultural burning used to avoid fuel built up in forest understories, and restore wildlife habitats and the growth of traditional foods and medicines. By averting or minimizing catastrophic wildfire, less forests are burned and remain intact. This means not only less carbon dioxide released into the atmosphere, but also the forest remains a carbon sink as well as viable habitat.

The Xenigwet'in First Nation and the Yunesit'in First Nation are engaging in a cultural burn of three forest/ grassland prescription areas within their caretaker areas in order to operationalize this climate adaption and mitigate effort.

The project already has in place key elements: Indigenous Elders and knowledge-holders informing the prescribed burns, forestry scientists and practitioners, support by Indigenous leadership, burn crews, safety protocols, and strategic partnerships to develop and implement burn plans. These experts will carry out cultural burns that will help to prevent catastrophic wildfire, and therefore the release of further greenhouse gas emissions into the atmosphere.

### **Project scope**

We are looking for a graduate student with knowledge of carbon modeling to calculate the avoided emissions throughout this project. This research will allow the First Nation as well as those responsible for BC/ Canada's emission reduction targets to accurately quantify emissions diverted from the atmosphere.

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Project work will include:

- Brief literature review and jurisdictional review of best practices in contemporary cultural burning
- Development and testing of a carbon calculation model based on established standards and methodologies for carbon budget modeling, and to align with forthcoming models, such as BC's Forest Carbon Offset Protocol Version 2.
- Modeling and calculations of forest carbon diverted from the atmosphere

## Deliverables

- Modeling/calculations of forest carbon diverted from the atmosphere
- Literature review and jurisdictional review of best practices in contemporary cultural burning
- A final report containing a summary of the work appropriate to forest carbon templates, methodologies and best practices from other jurisdictions
- PowerPoint presentation of final results
- Engagement monthly with the Xeni Gwet'in Tintowh to share results; and
- Presentation to Xeni Gwet'in First Nation Chief and Council

## Time Commitment

- This project will take 250 hours to complete
- This project must be completed between May 1 to August 15, 2023
- The Scholar is to complete hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.

## Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Statistical analysis
- Strong analytical skills
- Ability to work independently
- Demonstrated experience in forest carbon modeling
- Experience with forest carbon modelling and analysis
- Interest in or familiarity with contemporary cultural burning practices, an asset

We welcome all candidates to apply for this position. We especially encourage applicants who have strong knowledge of Indigenous ways of knowing and/or Indigenous cultural experience.

Applications close **midnight Sunday January 29, 2023**

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

Contact Karen Taylor at [sustainability.scholars@ubc.ca](mailto:sustainability.scholars@ubc.ca) if you have questions

## Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 23, 2023.

[Click here for details and to register.](#)

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>