Summer 2024 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Hub is pleased to offer current UBC graduate students the opportunity to work on sustainability internship projects. Successful candidates work under the guidance of a mentor from the partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region. These opportunities are paid. The pay rate for the summer 2024 program is $27.50/hour or $6,875 for a 250-hour project.

- 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 28, 2024.

>This is a Pathways to Net Zero Embodied Carbon Project<

UBC Sustainability Hub is undertaking a research and knowledge building project "Pathways to Net Zero Embodied Carbon in Buildings" to explore challenges and pilot solutions to accelerate Canada's carbon emissions reductions from building materials. The Pathways projects are a collaboration with BC municipalities to identify and advance local solutions and strategies for embodied carbon reductions, within the constraints and opportunities of that community. Successful candidates will be asked to participate in knowledge sharing events and activities.

Project Title: Research to develop a contractor toolkit to reduce embodied carbon in new home construction

Project Background & Overview

Buildings are the third largest contributor to Canada's total carbon emissions, and one third of building emissions correspond to embodied carbon emissions, i.e., the emissions generated by the production, installation, use and recycling and/or disposal of a building's materials. They are distinct from the operational emissions that are generated by the energy used in the building for space and water heating, cooling, and cooking. Case studies have shown that in the effort to reduce operational emissions, builders may be using materials that are highly emissions-intensive (e.g. spray foams used to achieve air tightness/insulation). While there are many policies and programs (from all levels of government) aiming to reduce operational emissions from buildings, there are relatively few targeting embodied emissions.

The City of Kamloops is committed to reducing GHG emissions from the building sector, including new and existing buildings. Our work towards implementing the higher steps of the BC Energy Step Code and Zero Carbon Step Code, along with the retrofit strategy for existing homes, supports the reduction of operational emissions. The City wants to help increase local literacy of embodied carbon emissions, so residents and industry may consider opportunities to reduce them in making decisions related to building projects.

Project Description

The purpose of this project is to develop a toolkit for contractors that highlights opportunities to reduce embodied carbon emissions in construction projects. The toolkit will feature options to reduce embodied carbon emissions of projects through optimization of building design and size, material selection and sourcing, and other factors relevant to new single-family home construction in Kamloops.

Project Scope

- Best practice scan of other jurisdictional approaches to informing and preparing the construction sector to adapt practices toward reducing embodied carbon in new home construction. Scan should include at least 3 relevant jurisdictions including the City of Nelson.
- Conduct interviews (~5) with contractors and City staff to expand on and locally ground-truth the research findings to better understand the opportunities, barriers, and gaps relevant to the local construction sector's awareness and abilities to reduce embodied emissions
- Review the initial research and interview findings with the project mentor and internal stakeholders for input and feedback
- Develop draft content for a toolkit that highlights opportunities to reduce embodied carbon emissions in construction projects based on the research findings and stakeholder feedback
- Prepare a final report synthesizing the findings, feedback, and recommendations

Deliverables

- A final report containing a summary of the work completed
- An executive summary for the on public-facing Scholars Project Library.
- A tool guide guidebook on how to reduce embodied carbon in new home construction for contractors
- A presentation to the project team and other stakeholders.

Time Commitment and Work Arrangement

- This project will take 250 hours to complete
- This project must be completed between May 1 to August 15, 2024
- The Scholar is to complete their hours between 8 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
☒ Familiarity with embodied carbon emissions in buildings
☒ Knowledge/experience of building design and construction processes

☒ Comfortable speaking with strangers/conducting interviews to gather specific information
☒ Strong analytical skills
☒ Ability to work independently
☒ Deadline oriented
☒ Familiarity with the building sector in BC, an asset
☒ Familiarity with the BC Step Code, an asset

Applications close **midnight Sunday January 28, 2024**
Apply here: Click here to apply
Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 23, 2024. 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