Summer 2022 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 to confirm your eligibility before applying.

Applications close at midnight on Sunday January 30, 2022.

Research project title: Research on living shoreline alternatives for the Stanley Park seawall

Project Background & Overview:
Vancouver is situated on the unceded traditional homelands of xʷməθkʷəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and səlilwətaɬ (Tsleil-Waututh). Embraced by water, including the Salish Sea to the west, Burrard Inlet to the north, and the north arm of the Fraser River to the south, we are a coastal community defined by our proximity to the ocean, river, and mountains. We recognize the need to plan for future sea level rise and help flood-vulnerable shoreline neighbourhoods, communities, and businesses to become more resilient to current and future coastal flooding.

Stanley Park is of significant meaning to the local First Nations who stewarded the land since time immemorial. Stanley Park is the largest park and natural area in Vancouver with 9 km of shoreline in the Burrard Inlet. Climate change, sea level rise, and more frequent extreme weather events increases the strain on hardened shorelines, like sea walls. Research shows that living shorelines are a more resilient approach to accommodate anticipated sea level rise by absorbing wave action, reducing erosion down shore, increasing biodiversity, and even sequestering carbon.

This Sustainability Scholars project will primarily focus on opportunities and designs for the intertidal zone, including rocky intertidal, salt marsh, and pebble/sand beaches, but should also consider how these intertidal practices could protect and enhance nearshore habitat, such as existing eel and kelp beds.

Project description
Through research comprised of a literature review and a review of case studies the Scholar will provide a high-level conceptual approach exploring the redesign of Stanley Park's seawall.

The scholar should rethink the designing of Stanley Park's seawall seeking novel approaches that will increase resiliency to future climate change impacts. Ideas for inspiration are presented below (The scholar and mentor will work together to prioritise the questions to be addressed based on interest and viability):

a) From an ecosystem health perspective, the hardened seawall has severely damaged the local intertidal zone habitat. Redesigning Stanley park shoreline could restore ecosystem functioning improving coastal habitat and increasing biodiversity.

b) From a climate change and sea level rise / adaptation perspective, regular maintenance has increasingly become problematic in recent years with increasing storm events due to climate change and masonry fixes to the current seawall, this combined with cliff scaling, are not sustainable in the longer term.
c) Despite its current negative ecological effects, the seawall is one of the most treasured aspects of the city, the park welcomes annually over 8 million visitors. Ensuring that experiencing the seawall is maintained will be a major challenge in redesigning to a living shoreline.

The project work and recommendations are to be actionable as part of the Climate Adaptation Strategy.

Project scope

The project work includes the following research phases:

- Conduct a literature review to understand the inherent value of living shorelines in the urban context of Vancouver and decolonization.
- Compile precedent case studies and research examples where popular shoreline paths have been designed with living shorelines to allow for natural processes and habitats.
- Provide a perspective on high-level conceptual option(s) that may be feasible as a starting point into rethinking the Stanley Park seawall future work.

Deliverables

- A final report (and/or executive summary) for the online public-facing Scholars Project Library
- A final report, containing a summary of completed work with key recommendations, complemented by a final presentation to key stakeholders

Time Commitment

- This project will take 250 hours to complete.
- This project must be completed between May 2, 2022 and August 12, 2022
- 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
☒ Familiarity with research methodologies and survey techniques
☒ Strong analytical skills
☒ Ability to work independently
☒ Deadline oriented
☒ Project management and organizational skills
☒ GIS training or experience an asset, but not mandatory
☒ Familiarity with nature-based solutions, shoreline adaptation, and urban design an asset
☒ Interest in Ecological restoration and design solutions, an asset.

Applications close **midnight Sunday January 30, 2022**
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 19. 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