

SUSTAINABILITY SCHOLARS PROGRAM

Fall 2020

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.

Note: Projects must be completed remotely during the COVID-19 pandemic.

- 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 20, 2020.

Project Title: Investigating opportunities for turning apparel waste into feedstock for viable, scalable end markets in B.C.

Sustainability Goal or Operations Plan objective

Key Area	Project Sustainability Objectives
Sustainable Cities and Communities	<ul style="list-style-type: none">• Analyse existing, new and emerging textile and apparel recycling technologies globally and analyze their potential for implementation in British Columbia, in particular in the Lower Mainland.
Responsible Consumption and Production	<ul style="list-style-type: none">• Provide alternatives to the take-make-waste dispose paradigm for the textiles industry.
Climate Action	<ul style="list-style-type: none">• Quantify and compare the net carbon emissions implicit in the assessed technologies for apparel recycling.

Project description

Project Overview:

20,000 tonnes of apparel waste enters landfills from Metro Vancouver each year. A 2018 social lab brought together 20+ local partners in the textiles industry to distill the primary challenges with reducing textile waste for the region. The lab resulted in a [published white paper](#) quantifying the waste problem in Metro Vancouver for the first time and developing an array of reduction, prevention and reuse initiatives, relationships and partnerships.

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A research gap uncovered in this process is the technologies available for apparel and textile recycling. This project will scan and assess available, new and emerging textile recycling technologies from environmental, economic and social lenses.

The results of the previous lab hosted by The Leverage Lab centred on textile waste are described in this downloadable White paper linked below.

<http://www.theleverage.com/white-paper-unravelling-the-problem-of-apparel-waste>

Direct Application to Industry:

The Textile Lab for Circularity (TLC) is a project collaboration between the Society Promoting Environmental Conservation (SPEC) and The Leverage Lab which seeks to prevent textile waste to landfill through a facilitated social lab process. The TLC is a continuation of the previous social lab centered on textiles. The TLC will bring together over 25 participants in a two year period (from 2020 to 2022) to build for circularity in our local textiles economy.

This Sustainability Scholar Project will provide a critical link in identifying potential technologies and end markets for recycled products to enhance textile recycling in the region. The direction of their research will be guided by the priority textiles identified by the participants in the TLC.

This project will take place concurrent with TLC's first year of operation. The Scholar's deliverables will be used to inform a Request for Proposals (RFP) for an apparel recycling pilot.

Scope of Work:

- Technology scan in regards to a specific type of materiality (e.g., cotton, Gore-Tex, or polyester) beginning with the list of resources provided to identify available, new and emerging apparel recycling technologies worldwide. In doing so, summarize key jurisdictions that have applied recycling technologies with the greatest potential applicability to the Lower Mainland.
- Conduct desktop research and interviews with staff in companies providing such technologies to understand:
 - Scalability — from large to small and vice versa
 - Marketability — where this product would be sold, to whom and for what price
 - Environmental, economic and social impact of the technology — according to lifecycle management principles and incorporating, where possible, a carbon footprint of employing such technologies
- Conduct desktop research and interviews with max 10 players in the textiles industry to identify end markets for recycled feedstocks.
- Industry input: work with the TLC participants and facilitators to identify and prioritize materials for textile recycling in the Lower Mainland.
- Develop an assessment matrix comprising the factors identified during desktop research to prioritize materials and technologies based on the partners and end markets realistically accessible in the Lower Mainland and BC.
- Map out the process, input quantities and materiality needed from start to finish.
- Create a summary presentation of the priority of materials for recycling and technologies for recycling said materials, complemented with a presentation to participants in the TLC.

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Deliverables

The Scholar will deliver a final presentation containing a summary of their completed work complemented by a final presentation to key players involved in the TLC. The report should include:

- A technology scan identifying existing, new and emerging techniques for recycling apparel waste, and ranking them based on the impact factors identified during the scan and interviews;
- A list of all textile material types entering landfill in the Lower Mainland, and prioritization for recycling based on the needs of actual businesses;
- A summary of jurisdictions where recycling technology has been effectively implemented;
- A 30-minute presentation to key stakeholders, relevant project partners and participants;
- An Executive Summary for the UBC Sustainability Scholars online project library.

Time Commitment

- This project will take **250** hours to complete.
- This project must be completed between October 19, 2020 and March 12, 2021.
- The Scholar is to complete hours between 9am and 5pm, Monday to Friday, up to 20 hours per week.
- The Scholar must be available for:
 - A biweekly project management call
 - A project-end presentation and report submission between March 1 and March 12, 2021, to be scheduled with the project team.

Required/preferred Skills and Background

- Excellent research and writing skills
- Demonstrated interest in sustainability and circular economy
- Excellent presentation skills
- Familiarity with research methodologies and survey techniques
- Statistical analysis
- Strong analytical skills
- Ability to work independently and remotely
- Project management and organizational skills

Additional assets:

- Familiarity with both mechanical and chemical recycling process
- Experience working in or around the textiles or apparel industry
- Familiarity with lifecycle analysis and carbon footprinting

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Applications close **midnight Sunday September 20, 2020.**

Apply here: <http://sustain.ubc.ca/scholarsapply>

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.

Resume workshop for prospective Sustainability Scholars: <https://www.eventbrite.ca/e/resume-workshop-for-prospective-sustainability-scholars-tickets-117422877989>

<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>