

WHAT WE HEARD: REPORT FROM THE SUSTAINABILITY EDUCATION SUMMIT



PRESENTED BY THE SUSTAINABILITY
LITERACY INITIATIVE

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Executive Summary

The Sustainability Education Summit provided an opportunity for University of Waterloo affiliates and external stakeholders to discuss embedding sustainability education into the post-secondary curriculum. Embedding sustainability into the post-secondary curriculum is not an unprecedented step for Canadian post-secondary institutions; **Université Laval** and **Concordia University** have already taken steps to ensure every undergraduate student will learn about climate change and sustainability from their degree. Other entities like Dalhousie University and the **Association of Canadian Deans of Education** are not far behind either. As an institution with a significant engineering population, it should be of particular interest to the University of Waterloo that in Quebec, undergraduate engineering programs must include education on sustainable development **by law**.

The case for embedding sustainability into the curriculum at the University of Waterloo can be found in the **rationale document** developed by the Sustainability Literacy Initiative. We would encourage you to review the Rationale document in addition to this report. Below, each aspect of the rationale is briefly stated.

1. Competitive advantage for graduates: sustainability considerations are emerging in every field and graduates with a solid understanding of general sustainability and its applications to their work will be more successful in the workforce.
2. Advancing UW as a leader in sustainability: other institutions have already begun to embed sustainability into their curriculum. To remain a leader in the sustainability space, the University of Waterloo must make embedding sustainability into the curriculum a priority.
3. Ethical imperative: Per the Paris Agreement, urgent action is required to keep warming within 1.5 degrees of pre-industrial temperatures. About **half of Canadians** do not feel well informed about climate change. Without higher rates of sustainability literacy, ambitious and appropriate climate action will not be possible.
4. Supporting existing university policy: embedding sustainability into the curriculum for all undergraduate students would help existing university policy, including objective A1 of the **2021 Environmental Sustainability Report** and support all five future frameworks introduced in **Waterloo at 100**.

What we heard

"Prior to [the event], I was worried it would limit me in terms of elective courses that I can take, but now I see that it would actually really benefit me as an engineer and as a person in the workforce and in society"

In Brief:

- Representatives from all 6 faculties at the University of Waterloo and more than 10 academic institutions across the world participated in the summit.
- 100% of attendees either agreed or strongly agreed that embedding environmental sustainability into the post-secondary curriculum is important.
- University of Waterloo students and staff proposed a range of mechanisms sustainability may be embedded into the post-secondary curriculum at the University of Waterloo.

Participants were encouraged to complete an exit survey at the end of the event to assess attitudes towards embedding sustainability into the curriculum at the University of Waterloo. Every faculty at the University of Waterloo was represented by responses in the exit survey. In addition to University of Waterloo participants, there were representatives from other post-secondary institutions and organizations around the world. Responses from the University of Waterloo are highlighted below.

100% of respondents agreed or strongly agreed that embedding environmental sustainability into the post-secondary curriculum is important. There was general support for the **suggested sustainability literacy requirement model**. However, attendees did suggest alternative models, which can be found in Appendix A.

"My mind was already set on the vital need for a sustainability curriculum, but this gave me a lot of energy and hope that we can mobilize together and get the job done"

University of Waterloo students identified that embedding sustainability into the curriculum would provide them benefits in their professional lives. A Faculty of Engineering student noted that "prior to this, I was worried (a sustainability literacy requirement) would limit me in terms of elective courses that I can take, but now I see that it would actually really benefit me as an engineer and as a person in the workforce and in society." A Faculty of Health student noted that "I think it makes a lot of sense[,] [f]or health especially I think we are really lacking and I would like to see it implemented in my program officially." Students from across faculties noted the benefit of sustainability education in their coursework to support their professional endeavours.

Recommendations

Based on the conversations at the Summit and extensive existing research by members of the SLI team, we would recommend that the University of Waterloo explores methods of embedding sustainability into the curriculum for all undergraduate students.

Our team would suggest the Sustainability Literacy Requirement structure outlined [here](#) as it offers the most flexibility to the student and aligns with the existing procedures at the University of Waterloo within the Faculty of Engineering.

Acknowledgements

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Event Highlights



Appendix A

Selected responses from University of Waterloo affiliated conference attendees to question 6 (What do you think would be the most effective way to embed sustainability into the curriculum at your post-secondary institution?):

- A required credit from a list seems feasible especially since it is the method for introducing communications requirements, though in some programs it could also be integrated in certain courses
- Creating department specific sustainability related courses and educating the student and faculty about the importance of having climate change risk management and related disciplines as a skill set
- Have a townhall with faculty deans and undergraduate advisors to discuss the importance of change in the curriculum.
- Institutional leadership and engagement (engage higher ups throughout the sustainability conversations); improve communication around the case of environmental education beyond the environmental faculty
- Through the proposed way of courses in every program. Possibly like a min volunteer hours needed to give back to community
- Input it into current courses by linking sustainability issues to the subject matter without adding a mandatory course.
- Either integrating SL into current 100 level courses or identifying which courses exist that cover this requirement already which fall into the different existing course lists. E.g., which of my list A requirements cover sustainability literacy?
- More courses that are finely tuned for specific areas. I.e. with math as an example; instead of “math sustainability” or “sus101,” run “differential equations in climate modelling,” “sustainability ethics in computing,” “optimizing food production processes” or something like that makes people care!!!!
- Have all profs make links to the SDGs within their courses and portray that it’s important in their field of study.
- I think having a list of electives relating to my program (Health) advertised to all students right at the beginning of undergrad and at every time of course selection. And having to pick one of those courses at least throughout your whole degree would be quite useful. I would want it to be really well developed and students to be left with really concrete ways they could implement sustainability into their health practice.
- From the panel discussion, I think having student support that brings it to the institution leadership and then have them mandate sustainability education for all facilities and then have faculties/fields choose the course(s) that are applicable for their specific students.
- Through targeted sustainability courses (e.g. sustainability education for business students different from that for engineering)
- Funding "fellowships" for professors to allow them to dedicate some of their time to developing teaching material/get involved in research that enables them to be better prepared to teach us sustainability literacy.