



UNIVERSITY OF  
**WATERLOO**



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**Climate Institute**

ACE PROJECT NATIONAL FORUM: “DESIGNING CLIMATE-READY EDUCATION FOR THE NEXT GENERATION OF PROFESSIONALS” hosted by the Waterloo Climate Institute, February 2-5, 2025

## INTEGRATING CLIMATE ADAPTATION INTO PLANNING EDUCATION: KEY TAKEAWAYS

*Held online on Wednesday, 4<sup>th</sup> February from 11:30am to 1pm EST*

### SESSION DESCRIPTION:

The session Integrating Climate Adaptation in Planning Education explored emerging trends, best practices, and key resources for strengthening climate adaptation within planning education in Canada. Guest speakers Mark Seasons (Chair, School of Planning, University of Waterloo), Mehdi Diouri (University of Waterloo, School of Planning), Tara Clapp (Chair, UNBC School of Planning), Mark Groulx (Professor, UNBC), and Deborah Morrison (CEO, Canadian Institute of Planners) initiated a dynamic discussion on current university approaches, areas where further progress is needed, and invited participants to share examples of climate education from planning and related programs across the country. The session was attended by 52 individuals who were a mix of educators (planning as well as other disciplines) and practitioners.

### KEY TAKEAWAYS FROM THIS SESSION:

In bullet form, main ideas shared, recommendations, challenges, strategies for teaching, competencies etc. Whatever comes up.

- **UWaterloo curriculum research framework:** identified seven core themes: climate science, analysis and projection, solutions and responses, equity and justice, policies and regulations, transformative capacities, and technical tools—developed into "wheel model" emphasizing continuous interaction between science, analysis, and responses
- **Key findings from UWaterloo Canadian programs assessment:** Climate science most mature (30% at maturing stage), but analysis and projection weakest (0% at maturing stage); vulnerability analysis, emissions modeling, and scenario planning not strongly embedded in required methods/GIS courses
- **Addressing climate solutions:** Solutions widely covered but often through standalone electives rather than core integration; equity and justice remains largely emergent; transformative capacities (change management, transition skills) least developed
- **Central tension: breadth versus depth**—most programs offer broad exposure but lack depth in climate analysis, emissions modeling, uncertainty management, and transformative capacities for socio-technical change

- **Heavy reliance on packed electives** signals climate change viewed as "add-on" rather than integrated into planning discipline; few programs reflect climate interdisciplinarity across core courses
- **"A good curriculum is collaborative"**—requires ongoing investment in attention, time, and thinking relationally; developed five learning outcomes including system transformation integrating transformative capacities, policy capacities, and climate knowledge
- **Professional ethics tension:** staying within bounds of training versus need for interdisciplinary systems thinking; planners should be continuous learners with access to resources, not experts in all areas
- **Student anxiety management:** students can become overwhelmed and disengaged when content is too abstract or fear-based; effective approach provides tangible local actions and empowers through applied work (e.g., nature-based solutions inventory in local park). Important to "just ask students how they're doing" for emotional check-ins; many planning faculty may not be prepared to address psychological aspects of climate anxiety
- **Adaptation vs Mitigation?:** Need to move beyond artificial mitigation/adaptation boundaries; integrative concepts like "low carbon resilience," "green resilience," planetary boundaries, and ecosystem services can serve as "whole system containers"
- **Six recommendations:** make climate learning foundational and visible; mainstream content across core courses not electives; sequence deep learning through multi-term studios; build specialized electives on strong core; ground education locally using real municipal data; foster cognitive resilience through positive transition narratives not fear-based approaches

## RESOURCES SHARED DURING THIS SESSION:

- [Canadian Climate Atlas](#)
- [CIP Resource Library](#)
- [CIP webinar with Housing, Infrastructure and Communities Canada \(HICC\) on their Climate Toolkit](#)
- [Plan Canada Webinar Series: "Planning for Disruption: Resilience in an Uncertain Future"](#)
- [Teaching resources for addressing climate emotions](#)
- Royal Roads Resilience by Design Lab's [Climate Action Competency Framework \(v2\)](#) for professionals
- Waterloo Climate Institute: [Integrating climate change into planning programs: ACE curriculum brief.](#)
- Waterloo Climate Institute: [The status of climate change education in Canadian accounting, architecture, planning and engineering programs \(2025\)](#)

**For more information, please contact the Waterloo Climate Institute:  
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