



UNIVERSITY OF
CALGARY

REDEVELOP

Training Canada's Future Leaders in Low-Carbon Energy

Canada is facing unprecedented challenges in supplying sustainable, cost-effective energy to meet growing demands. United by a vision of supporting a **sustainable transition to a low-carbon energy future**, REDEVELOP brings together leaders from academia, industry, government, and Indigenous communities. REDEVELOP's mission is to train the next generation of science and engineering leaders and policymakers to **work across disciplines, distance, and cultures**.

The Opportunity

The program currently involves five universities and is administered by the University of Calgary, with a cultural model, **ii'taa'poh'to'p** ("together in a good way"), which forms a foundational component of student training. By providing the crosscutting technical knowledge, together with business acumen and a deep understanding of the socioeconomic, legal, and regulatory aspects that are essential for energy development, REDEVELOP is helping to ensure that Canada can derive full economic benefit from its vast resource endowment, while fulfilling its commitments for **reducing emissions, communicating effectively with the public, and consulting with Indigenous communities**.

Reflective conversations about the direction of our economy and energy production have been advancing quickly. While inclusivity of Indigenous people is mentioned frequently in media of all forms, fundamental understanding of the **Calls to Action** and their inherent applicability in Canadian society is lacking. Education of the next generation of professionals in **Indigenous history and ways of knowing** will advance communication and promote inclusivity in Canada's energy sector.



REDEVELOP students explore solutions to challenges facing the energy sector in its journey towards a sustainable transition to a low-carbon energy future.



NIYAK (Network for Indigenous Youth Academic Knowledge, or "for the future" in Cree) is a sister program for REDEVELOP. NIYAK is a collaboration between the University of Calgary and the Sucker Creek First Nation (SCFN) community to undertake a 3-year **water quality study** of the Lesser Slave Lake (LSL) watershed. NIYAK is also a communication platform, connecting SCFN high school students to graduate and undergraduate students from universities across Canada through REDEVELOP. This academic network of students-helping-students is a **safe communication platform** to learn about post-secondary programs in science, technology, engineering, and math (STEM).

SCFN students can receive one-on-one help with **admission requirements, scholarships, and cultural support** in an academic environment. Undergraduate summer interns help researchers and elders **combine the scientific method with Indigenous ways of knowing**.

"REDEVELOP brings out the best in the talented students by providing them a platform to transfer their academic skills to real life challenges and work environments."

Mark Taylor, Executive Advisor

The Scope



Since its inception in 2017, REDEVELOP has trained 99 graduate and 3 undergraduate students to work across disciplines, distance, and cultures. Training instills effective communication and a holistic approach to problem-solving in which conflict resolution strategies are explored based on principles from Industrial-Organizational Psychology. Students work in small interdisciplinary teams of science and engineering leaders and policy makers to **research existing and emerging low-carbon energy challenges**. They then present **potential solutions** to a panel of experts in a **competitive environment**.

NIYAK supports water sampling and analysis of the Lesser Slave Lake watershed and strives to combine the scientific method with Indigenous ways of knowing.



Their projects incorporate **technical** knowledge, **policy** implications, and **Indigenous** community and business impacts. The winning team is awarded a stipend to attend an academic conference of their choice. In addition to this, all teams present their results at GeoConvention, allowing for a wider audience to see what they have been working on and potential solutions that could be implemented in the near future.

A committee, composed of students who have completed the program, gains further **leadership experience** when they return in an advisory mentorship role. These students guide new teams through the challenge process, support the delivery of the program, and take an active role in planning the year-end conference. Many of the trainees also take part in **field trips** to partner institutions, industry locations, and Indigenous communities, both through REDEVELOP and its sister program, NIYAK.

Current participants and alumni attend the year-end conference to **strengthen their network** and support one another while they gain knowledge and insight into a variety of aspects of the low-carbon energy industry and its challenges. This conference also offers **hands-on experience** in the form of field trips to locations relevant to the year's topics.

The Possibilities

REDEVELOP engages students from across Canada in an **experiential learning process**, allowing them to build their knowledge and understanding of the evolving energy sector while they expand their network and learn to incorporate Indigenous perspectives in innovative energy solutions. Students develop **teamwork and leadership skills** through the use of an Industrial-Organizational Psychology model that focuses on **effective communication, problem solving, and conflict resolution**, putting them a step ahead of their peers who do not take part in the REDEVELOP Program.

The **competitive and interdisciplinary** nature of the program fosters an **innovative mindset** that graduates bring with them to the workforce, helping them lead the way to **new developments in the energy sector**, and their engagement with Indigenous communities primes them for **meaningful stakeholder engagement** in their future careers. Donors would be directly contributing to increasing the number of well-rounded, talented individuals entering the energy sector workforce, and reaping the benefits of that increase.

Make an impact through philanthropic investment

We are seeking individual and corporate supporters to join us in developing a diverse community of learners and leaders at UCalgary through an investment of \$30,000-\$500,000. Together, we can meet future challenges with excellence by empowering and inspiring today's students.

For more information about how you can make a difference, please contact:

Silvia Kallen

Director of Development, Faculty of Science

University of Calgary

silvia.kallen@ucalgary.ca

403-220-8914