



Who We Are



Our Vision

To provide all children and youth of British Columbia the opportunity to explore science, technology, engineering and math (STEM) in a fun and inclusive environment.

Our Mission

UBC Geering Up Engineering Outreach is a not-for-profit organization based out of the University of British Columbia (UBC). We are dedicated to promoting STEM subjects to children, youth and their families through fun and hands-on activities.

We promote diversity in STEM and address province-wide learning inequalities through special outreach programs for groups underrepresented in engineering and the sciences such as Indigenous students, innercity youth and girls.

UBC Geering Up Engineering Outreach is based out of the UBC Faculty of Applied Science. We help act out the University's commitment to Indigenous engagement, diversity, and undergraduate recruitment in engineering.

Geering Up is also part of Actua's national network of not-for-profit STEM outreach organizations. Actua provides training, resources and support to its members located at universities and colleges. Each year, these members engage over 250,000 youth in 500 communities across Canada.





Part of a national movement



What We Do

Camps

For 24 years, Geering Up has transformed classrooms and laboratories into exciting spaces for kids to explore STEM. Each week of camp helps participants get excited about science and develop positive relationships with their peers. We are committed to bringing our unique summer camps experience to youth across BC through satellite programming and financial aid to those in need.

In-school workshops

Recognizing that not all students have the time or resources to visit us at the UBC campus, we bring our activities and instructors to over __ classrooms per year. We collaborate with local school teachers and staff to tailor our workshop activities to their curriculum.

After-school clubs

These special programs are an opportunity for youth to spend time with like-minded peers in an environment where STEM is fun and inclusive. Across an entire school year, our instructors get to work intensively with each cohort of students.



28,000 youth reached in 2019

50% were girls

Teacher programs

The new BC Applied Design, Skills and Technology (ADST) curriculum heavily integrates computer science and applied science skills. To meet this demand, Geering Up worked with 900 teachers across 5,300 face-to-face hours in 2019, educating event participaints about computational thinking and coding. Recognizing that teachers are key actors in promoting diversity in STEM and challenging negative stereotypes, our Teacher Professional Development (ProD) workshops provide educators strategies for promoting inclusivity in their classrooms.

Events

On Saturdays, our events team welcome students at tech workshops, engineering seminars, and make-a-thons. Two of our events offered throughout the year, Let's Talk Tech workshops and Engineering Explorations, hosted over 500 in total across last year.

Parent Sessions

We welcome parents to one-hour informational sessions to teach them about engineering and technology career options for their child. During these special events, we work closely with caregivers to explore how their children can consider STEM in school and beyond.

62 Communities Reached

6,300 Inner-city Youth Supported



Indigenous Outreach

In 2016, Statistics Canada revealed that nearly 1.7 million people identify as Indigenous, an astounding 42.5% increase since 2006. However, Indigenous students make up just 1% of undergraduates in engineering. This is compounded by the fact that only 64% of Indigenous youth graduate from high school.

In light of this challenge, our Indigenous Outreach initiative (or "InSTEM") collaborates with Elders and local school teachers to deliver educational activites that are relevant to the culture and everyday lives of Indigenous learners. By making a general contribution, you can support a community in your vicinity and get involved in the movement in Indigenize STEM!

In 2019, we engaged **2,700** Indigenous youth across **33,000 face-to-face hours,** up from 17,000 in 2018. This year, we aim to reach **3,500 youth spanning 35** communities through barrier-breaking programs such as Land-Based Camps, paid internships, and mentorship.





Girls-only Programs

Despite the growing number of jobs in science and technology, only 35% of STEM students in higher education are women. For engineering and computer science, this number decreases to 15%. We need to better educate girls about careers in STEM, challenge negative stereotypes and break down gender-based barriers.

Geering Up's Girls-Only programs confront this challenge by empowering girls and building a safe space for exploration and discovery. With your support, we can help bridge the gender gap in STEM by offering Girls-Only camps and clubs in your community.

"I thought engineering was all about formulas and computers, but now that I've done this course, I know that it's about a whole variety of things that are really interesting."

Grade 8 Participant



New event: Digital Skills Day

Engaging girls in tech takes more than just sharing knowledge. It's about solving real-world problems through creativity and support from people we look up to.

Each year, we invite 40 girls and their parents/caregivers to complete computer science activites together. In this event, girls have the opportunity to lead the discussion about technology. We are actively looking for sponsors to take part in this program as project partners and mentors!

Teacher Programs

70% of tomorrow's jobs will require STEM skills, but less than half of high school students graduate with the prerequisite STEM courses. As such, researchers expect a shortage of over 100,000 engineers in the next decade. Teachers play a vital role in preparing the next generation to fill this gap and promoting inclusivity in STEM fields. Geering Up addresses this need by offering teacher professional development (ProD) programs across BC. We work with UBC's Faculty of Education to deliver teacher candidate training and programs that will span across 15 school districts, including four rural Indigenous communities.

In 2019, Geering Up engaged **900 teachers** through **5,300 face-to-face hours.** This year, we aim to reach **2,000 educators** in grades 4-9 to deliver **15,000 face-to-face** hours of training. By extension, our initiative can impact over **48,000 youth** for years to come.



"Everything was extremely valuable. I appreciated how hands-on the activities were and how we were able to try all of the activities in advance so that we know how to better teach them."

Teacher Participant

Contact Us

UBC Geering Up Engineering Outreach

3800 Wesbrook Mall - Room 160, Vancouver, BC V6S 2L9 604.822.2858

Email: community@geeringup.ca www.geeringup.apsc.ubc.ca

Thank You to our 2019 Sponsors!

Silver Sponsors





FLUOR











Bronze Sponsors





2019 Actua National Funders

























2019 Actua Western Canada Major Funder

