



2023-2024 PROGRESS REPORT

NSERC Chairs for Women in Science and Engineering
British Columbia & Yukon Region

DR. JENNIFER JAKOBI

jennifer.jakobi@ubc.ca
wwest.ok@ubc.ca



CHAIR FOR WOMEN IN SCIENCE AND ENGINEERING BC/YUKON PROGRAM

The **VISION** of the Westcoast Women in Engineering, Science and Technology (WWEST) program is to increase diversity, and grow a collaborative community through application of positive factors and forces, exciting women and underrepresented persons to pursue, and remain in STEM careers. With a goal to impact locally and influence nationally activities will advance local engagement, transformative learning, and research excellence around the three core themes of:

Inclusion: Encompasses activities that increase awareness through experiential learning and opportunities for underrepresented persons to experience STEM. Focus herein is learners and teachers.

Collaboration: Partnerships and community is the cornerstone for initiatives that advance diversity in STEM. Sustainability is at the forefront of activities that are designed and created with input from girls, Indigenous people, and older adults.

Innovation: Through transformative learning and research excellence, the goal is to instill appreciative value of the benefits of diverse and inclusive STEM learning and working environments. Activities include workshops, publications, podcasts.

PROGRAM SUMMARY

Quantitative Metrics

	Postsecondary Students	Community Events	Youth STEM Camp	Events at UBCO in Collaboration with Partners	In-classroom Mentorship Program	Social Media Impressions
Number of participants	391	1,531	2,456	6,081	Teachers: 1,173 Students:13,476	69,505

Descriptive Metrics Highlights

Inclusion	<ul style="list-style-type: none"> • “Thank you again for everything. I thoroughly enjoyed my experience with WWEST and have learned so much that will have practical applications in my future classroom.” – UBCO Experiential Learning Student • “The support I've received, has been incredibly meaningful to me. I deeply value the assistance, and the opportunity to work and learn from such a supportive team.” – Indigenous UG Student • “I loved the opportunity to be a part of this activity and it was so nice to see that it was so student oriented!” – Work Study Student
Collaboration	<ul style="list-style-type: none"> • “This is very cool. Can we print and post it?” – Partner re: Infographics • “Many thanks for the partnership for National Coming Out Day. we were lucky to have WWEST with us. I heard that some students wrote their mother's name, others wrote 'queer joy', another wrote 'ti amo' as a gift to give their partner.” – Community Partner
Innovation	<ul style="list-style-type: none"> • “I cannot sing the praises of WWEST enough. They have inspired my class to think like scientists—being critical thinkers, being curious, asking good questions and figuring out steps to find the answer. . However, it is the 'science fair residency' that has pushed me to grow and I hope has changed my practice going forward.” – Teacher Participant in the Mentorship Research Program • “I just wanted to pass along our appreciation for the support you and your team provided for this event. It is so amazing for the kids to experience some time on Campus.” – PAC President • “My dreams would not be possible without the humans who inspire me to create change. As a woman in STEM, my goal is to be that inspiration for women and girls, and to help them realize that they are capable, deserving, and bright”. Thursday Thought – UBCO Postsecondary Student



Activities, Themes and Core Areas Summarized

<p align="center">WWEST PROGRAMMING</p>	<p align="center">Inclusion Collaboration Innovation</p>	<p align="center">Sustainability</p>	<p align="center">Research Excellence</p>	<p align="center">Local & Global Engagement</p>	<p align="center">Transformative Learning</p>	<p align="center">Experiential Learning</p>
<p>Renaming/Replacing Whitepaper Launch WWEST organized and hosted focus groups. The consensus was to launch a social media campaign, present and publish recommendations (paper submitted), and move forward with supporting relevant and partner organizations in replacing this colonial and racialized term.</p>	<p align="center">Collaboration Innovation</p>		<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	
<p>Climate and Sustainability Programming WWEST collaborates with the BC STEAM Ecosystems organization, to promote climate and sustainability learning opportunities on and off campus (ie. STEAMing Ahead, Science World partner activities, and Innovate Ed)</p>	<p align="center">Collaboration Innovation</p>	<p align="center">■</p>		<p align="center">■</p>		<p align="center">■</p>
<p>STEM Teacher Mentorship Program Programming includes no-cost, in-person in-classroom facilitation of STEM Curriculum; Workshops; Teacher and Science Fair Mentoring. These programs for teacher support build confidence in teaching STEM, and change classroom culture for underrepresented learners.</p>	<p align="center">Inclusion Innovation</p>		<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>
<p>Indigenous Mentorship In partnership with Indigenous Programs and Services (IPS), we provide Indigenous postsecondary students mentorship in STEM based learning as well as life-professional skill development. With IPS and SD22 we organize, ISTEAM - an annual event that introduces Indigenous secondary students to UBCO. We are contributing to curricular development at Okanagan Indian Band (OKIB) for the new cultural immersion school.</p>	<p align="center">Inclusion Innovation</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>
<p>Local and Global Research & Translation Published 3 papers and presented at 3 local, 8 National and 1 International events on EDI and/or STEM Pedagogy.</p>	<p align="center">Innovation</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>		
<p>Lead Organizers and Independent hosts for UBC Okanagan Co-hosted events Requests for STEM learning on campus continues to increase. WWEST supports individual school activity/tour days, and plans, leads registration and organizes UBCO STEM Engagement Day (Nov) and Expo of Awesome.</p>	<p align="center">Collaboration</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>



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<p>Postsecondary Student Opportunities WWEST postsecondary student volunteer and employment opportunities enable hands-on science activity development, and leadership opportunities in schools and communities. •Events such as Math to Power Her Life, Indigenous engagement, and rural travel allow for role modeling and sponsorship for underrepresented persons. •Contributions to Faculty of Education Community Placement, Independent Research Studies for credit, Workstudy and Co-op Student Placement enable advanced training. •WWEST also provides mentorship and financial support to student associations in STEM initiatives ie: Bridging Other Women in Science (BOWS).</p>	<p align="center">Inclusion Collaboration</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>
<p>Parent Advisory Council (PAC) Partnerships WWEST collaborated with PAC groups in 3 unique school districts to support classroom visits, after school programming, and family fun nights. Partnership expansion to other PAC's is underway, and have resulted in additional non-school partnerships eg., Rotary Clubs, Retired Teacher Assoc.</p>	<p align="center">Inclusion Collaboration</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>
<p>Equity, Diversity and Inclusion (EDI) Participation in Kelowna Pride Day and UBCO National Coming Out Day, and supporting staff in gaining training such as Autism Canada and GBSA+ certification. We have developed Infographics and Podcasts to educate and promote EDI publicly.</p>	<p align="center">Collaboration Innovation</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>	<p align="center">■</p>

PARTNERS & DONORS OF THE CHAIR PROGRAM

Locally, OKIB, SD22 and SD23 have increased their support of the K-12 programming, and continue to work collaboratively to provide space and time for teacher and student development. Further to this, current partners who commit in-kind or small donations (>5k) include:

SD70 Parent Advisory Council	SD22 Parent Advisory Council	SD23 Parent Advisory Council
Honda Canada	Black Rock Hotel, Ucluelet	Canadian North Airlines
McElhanney	RF Binnie	Science World Vancouver
SCWIST	CCWESTT	Big Little Science Center
Thompson Rivers University	Yukon University	University of Northern BC
Canucks Autism Network	School Divisions across BC/Yukon	UBC Indigenous Programs & Services

OBSTACLES AND STRENGTHS

While there are many successes within the WWEST program, the main challenges (unsurprisingly at UBCO) continue to be space for our expanding program, and funding to continue to meet the on campus and in-community demand. The strength is our positive local and province wide reputation for leading well-organized activities that are both generating research output, and evidence informed.

CONNECTING WITH WWEST



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wwest.ok@ubc.ca