



Chair for Women in Science and Engineering  
BC and Yukon Region



Westcoast Women in Engineering,  
Science & Technology

# Annual Report

Year 5: September 2014 to June 2015

## Engineering Explorations

Four outreach events reaching students in Grades 8-10 and teachers of Grade 6/7.



In partnership with UBC Engineering & eng-cite, WVWEST co-organized four outreach events between September 2014 and March 2015:

- Engineering Explorations 9, October 18, 2014 | 90 grade 9 students  
National partnership with the Ontario Network of Women in Engineering
- Engineering in Your Classroom, October 24, 2014 - 70 teachers
- Engineering Explorations 8, February 28, 2015 | 54 grade 8 students  
Steveston London Secondary School, Richmond
- Engineering Explorations 10, March 28, 2015 - | 90 grade 9 students

Engineering Explorations participants went on lab tours, interacted with current engineering students and industry members, and tackled hands-on team design challenges during these full-day events.

*"It was a very interesting experience for me as I got to see cool labs. I also got to meet people that work/study in the fields that I am interested in. This event gave me an idea of what my dream career looks like and what I need to do to pursue it."*

- Engineering Explorations 10 Participant

*"Very fun and I learnt much more about engineering choices at uni. Loved how we had hands on things to do, not just listening"*

- Engineering Explorations 9 Participant

Engineering in Your Classroom led grade 6 and 7 teachers through three curriculum-based engineering activities over the day-long conference, and offered an opportunity for teachers to discuss possible modifications to support implementing the activities in their classrooms. Each teacher who attended received a classroom kit of all the materials needed to run the activities. Feedback from the day included:

*"It was the best pro-D I've been to. Fun, interesting, resources, food, interaction with professors and students. Awesome!"*

*"Thank you so much for this workshop - very informative and relevant. Good speakers, lovely lunch, excellent information. Will highly recommend if anyone else is interested."*

These four programs will continue through eng-cite and UBC Engineering.



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## Iron Pin

In January 2014, WWEST and the Faculty of Applied Science supported the UBC Engineering Undergraduate Society (EUS) in the creation of the Iron Pin ceremony. This inclusivity initiative was created to address a concern about the lack of early education on Engineering Ethics.

The cornerstone of the Iron Pin ceremony is the UBC Engineering Code of Ethics. This code was adapted from the APEGBC Code of Ethics to be relevant and relatable to students and their time as a UBC Engineer. The Iron Pin is worn as a reminder to the wearer of the code.

This ceremony will become an annual tradition, to welcome all incoming students into the UBC Engineering community with a pin marked by their entrance year. In 2014 Iron Pins were distributed to current students, staff, and alumni.



Below: representatives from the UBC Faculty of Applied Science, APEGBC and the EUS .



## Quantum Leaps

Started by SCWIST, Quantum Leaps is a day-long conference designed to inspire young women to consider pursuing STEM careers.

Between October 2014 and March 2015, WWEST supported Quantum Leaps conferences in North Vancouver, the Kootenay Region, and Burnaby. Jennifer Pelletier presented a workshop on Post-Secondary Planning in North Vancouver, and Dr. Elizabeth Croft gave a keynote speech via video livestream for Quantum Leaps Kootenay Region, giving a tour of the CARIS lab, and answering live questions from the audience. Quantum Leaps Burnaby shared a mentorship lunch with Engineering Explorations 10 at UBC featuring industry professionals, heard a keynote speech from Dr. Croft and Charlie PR2 (a robot in the CARIS Lab), and had the option of attending an engineering workshop with Jennifer Pelletier.

## WWEST Chairholder

Dr. Elizabeth Croft

## WWEST Faculty Associate

Dr. Sheryl Staub-French

## Staff Members

Jennifer Pelletier (Manager)

Student Assistants:

Rebekah Parker (Education & Outreach Coordinator)

Robyn Choi (Social Media Coordinator)

Yegee Chun (Research Recruitment Assistant)

## Creating Connections 4.0

WWEST was proud to support Creating Connections 4.0 at Simon Fraser University in May 2015. The conference was expanded to two days with a Leadership and Diversity track on Friday, May 22, 2015 and the main conference on Saturday, May 23, 2015.

Dr. Elizabeth Croft and Jennifer Pelletier presented a workshop on Strategic Recruitment: Values-Guided Hiring on Friday to a crowd of 40, including industry, students and academia.

The Friday night keynote panel included the Right Honourable Kim Campbell, Stacey Cerniuk, Diane Finegood, Fiona Macfarlane and Donna Wilson, moderated by Dr. Mario Pinto, President of NSERC.

WWEST is proud that the Creating Connections tradition will continue with the next Chair - stay tuned for the call for organizers for Creating Connections 5.0 in 2017!



## We Are Transitioning

Dr. Croft and WWEST would like to thank all of our funders, supporters, and networks for their continued support over the last 5 years. WWEST is now transitioning to SFU with Dr. Lesley Shannon. We wish them all the best.

## WWEST in the Yukon

From June 1-2, 2015, WWEST presented a Women in STEM workshop series, co-hosted with:

- Yukon College
- Yukon's Science Community of Practice (SCOPE)
- Yukon Research Centre
- Government of Yukon Executive Council Office
- Government of Yukon Staff Development Branch

Dr. Elizabeth Croft, Dr. Lesley Shannon and Jennifer Pelletier presented 4 workshops on mentorship leadership, and effective measurement. Local STEM mentors shared their experiences and perspectives with the participants, and the workshop series culminated in a mix-and-mingle event.



## Promotion to Professor Workshop

Promotion to Professor was a national, three day event which brought together 16 women Associate Professors in science and engineering who are working towards promotion to the rank of Professor.



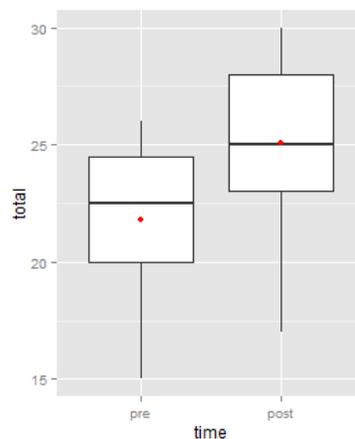
Participants were invited to an evening reception on May 19th, 2015 to network with each other, senior peers, and UBC administrators. On May 20th, the full day workshop included sessions and panels from 10 senior academics and administrators from UBC, Harvey Mudd College, and the University of Guelph, reflection activities, and group discussions. Topics included:

- Researching and Understanding the Criteria for Full Professorship
- Managing your Research Reputation and Getting Recognition
- Work-Life Effectiveness
- How to Deal with Politics
- Service, Administrative Duties and Teaching
- Creating a Plan: The Package, the Letter and Timing

Participants met with CV mentors (senior UBC academics) on May 21st for thirty to forty-five minutes. **As shown below, the full workshop resulted in statistically significant ( $p < 0.01$ ) positive changes for participant's occupational self-efficacy (indicating career persistence).**

### How to read a box-and-whiskers plot:

- The quartiles of the scores are represented by the area above the box, the top half of the box, the bottom of the box, and the area below the box;
- The box illustrates the experience of half of the respondents, while the whiskers show the extremes;
- The movement of the line shows the change in the median score;
- The movement of the red dot shows the change in the average score.



The Self-Efficacy Survey is scored out of 24 points.

Pre-event average: 21.8

Average increase: +3.27

Statistically significant? Yes,  $p < 0.01$

### Post-event Survey Responses

On a Likert Scale of 1-5, 1 = strongly disagree, 3 = neutral, 5 = strongly agree

I know what my next steps are to applying for full professorship.	4.3
I feel more confident about applying for full professorship after this workshop.	4.4
I know how to access resources to support me in my application for full professorship after this workshop.	4.1

*"Thank you for a very valuable experience. I learned much and feel that this workshop will make a real difference for me."*

The event evaluation was administered as a pre- and post- test. A total of 14 responses were collected, 10 of which were complete, out of 16 participants, a response rate of 88%.

## Lead Sponsors



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# Our Work Continues

Through two exciting organizations



Westcoast Women in Engineering,  
Science & Technology

Dr. Lesley Shannon is the NSERC Chair for  
Women in Science & Engineering BC/Yukon  
from May 2015-April 2020.

She will be continuing to use the WVWEST name.  
For more information, contact [wwest@sfu.ca](mailto:wwest@sfu.ca)

Four generations of the NSERC CWSE BC/Yukon (L to R):  
Drs. Lesley Shannon, Elizabeth Croft, Anne Condon, & Maria Klawe



**eng•cite**

The Goldcorp Professorship for  
Women in Engineering at the  
University of British Columbia

Made possible by  
a \$500,000 gift  
from Goldcorp,  
secured in part,  
by WVWEST

Inaugural holder of the  
Goldcorp Professorship for  
Women in Engineering at UBC:  
Dr. Sheryl Staub-French, P.Eng.

The Mandate:  
Increase the number of women entering  
UBC Engineering to 50% by 2020.

Signature Events:  
Engineering Explorations 8, 9 & 10  
Engineering for Your Classroom (Gr. 6/7 Teachers)

Learn more at: [engcite.ca](http://engcite.ca)



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