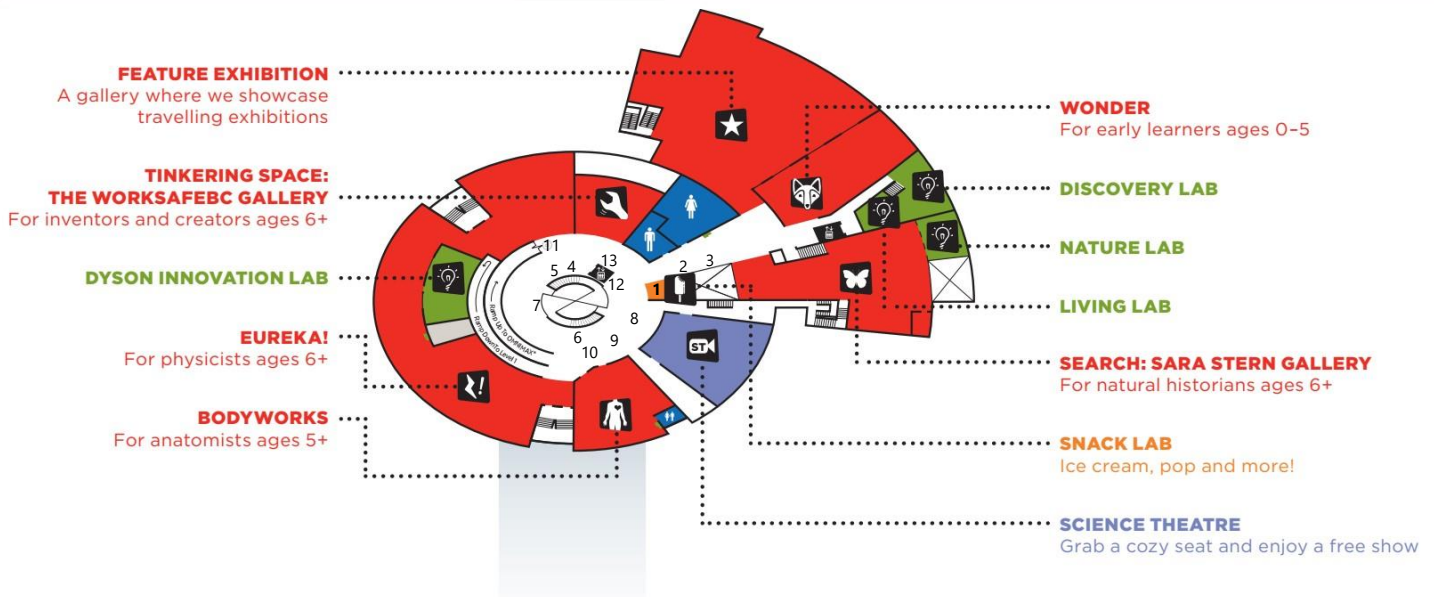


LEVEL 2



1. Langara Department of Chemistry
2. Langara Makerspace
3. Langara Bioinformatics
4. UBC Sensorimotor Lab at the School of Kinesiology
5. UBC School of Biomedical Engineering
6. Vancouver Community College

7. KPU Lifespan Cognition Lab in the Department of Psychology
8. Douglas College Department of Engineering
9. Douglas College Department of Chemistry
10. Douglas College Department of Biology
11. Genome BC
12. Science World's Future Science Leaders
13. Teen Advisory Group Valentine's Origami!



Schedule:

6pm

Explore Post-Secondary booths!

6:30PM

Welcome Show

6:45PM

Explore Post-Secondary Booths (Valentine's Day themed) and amazing Galleries!

7:20PM

LIVE Post-Secondary Demo Off at the Peter Brown Family Centre Stage

8:45PM

Closing Show (Win Prizes!)

9:00PM

Event Ends

Featured LIVE Presenters

1. Phall in Love with Physics

Douglas College Department of Physics and Astronomy

Jennifer Kirkey

Einstein said that gravitation cannot be held responsible for people falling in love. Jennifer Kirkey from Douglas College will demonstrate that you can fall in love with physics and that it is a very attractive science using gravity, electricity and magnets.

Jennifer Kirkey has been teaching physics and astronomy for more than 25 years at community colleges in British Columbia, primarily at Douglas College in New Westminster, including the MSTE program for Elementary School Teachers. During this time she has been an active participant in Science World's Scientists in the Schools program doing outreach work in elementary schools all over the province. She has presented at a number of professional development conferences and is passionate about hands-on learning to open up inquiring minds.

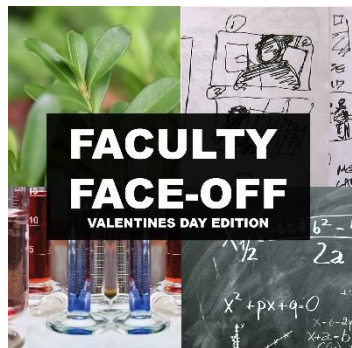
2. Meet the new bioluminescent organism

Langara Department of Chemistry

Jenny Wong & Johanne Penafiel

She makes the room shine with light through her chemical orchestra. Come watch her light up your world. You'll leave feeling bedazzled. In nature, a few organisms can produce chemical reactions that generate light. Some shine to signal that they're looking for the love of their life, while others do so to let you know they mean business!

Check out our bios below! (Booth 1)



Featured LIVE Presenters

3. Movement Illusions

UBC Sensorimotor Lab at the School of Kinesiology

Calvin Kuo, Anthony Chen, & Emily Miao

Everyone knows about the five senses of taste, smell, touch, sight, and sound. But, did you know we have a sixth sense in the vestibular system? The vestibular system allows us to detect movements of the head, which we use to control how we move around. Similar to how optical illusions can trick your eyes, we can use electrical stimulation to trick your vestibular system to sense motion. For our demo, one lucky volunteer will get to use this vestibular illusion to "drive" a researcher as s/he walks across the stage to trace out a heart for Valentine's Day!

Check out our Bios below! (Booth 4)

Schedule:

6pm

Explore Post-Secondary booths!

6:30PM

Welcome Show

6:45PM

Explore Post-Secondary Booths (Valentine's Day themed) and amazing Galleries!

7:20PM

LIVE Post-Secondary Demo Off at the Peter Brown Family Centre Stage

8:45PM

Closing Show (Win Prizes!)

9:00PM

Event Ends



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Featured Guests

1. Langara Department of Chemistry

Jenny Wong & Johanne Penafiel

Come play around with very cold liquid nitrogen and make your own tasty, creamy, delicious treat. We all can scream for ice-cream!

Jenny Wong obtained both her BSc and PhD in chemistry at Simon Fraser University. Her research area was on piezo-/ferroelectrics, which are functional materials that can convert mechanical energy to electrical energy and vice versa. Aside from the research aspect of her graduate studies, she also had many teaching opportunities which triggered her passion towards teaching. Currently, she is an instructor at Langara College, where she devises ridiculous analogies and relating chemistry topics to daily lives to help students learn and have fun. On the side, she loves to experiment in the kitchen and make tasty treats.

Johanne Penafiel studied organic chemistry at Ecole Européenne de Chimie Polymères et Matériaux, Strasbourg (FR) and obtained her PhD in organometallic chemistry at the Rijksuniversiteit, Groningen (NL) and Friedrich-Alexander-Universität, Erlangen (DE). She came to UVIC, Victoria, as a post-doctoral fellow and after different teaching opportunities around BC, she is now at Langara College, Vancouver, sharing her passion for chemistry and her interest for understanding of the natural world. As soon as she arrived in BC, she fell in love with its wilderness and when she is not exploring, she loves being in the kitchen preparing delicious meals.

2. Langara Makerspace

Phillip Robins

We will be demonstrating various Makerspace technologies and examples of projects.

3. Langara Bioinformatics

Ryan Zier-Vogel

Langara's Bioinformatics program will run an interactive demonstration showing how to perform sequence alignments of segments of DNA. Sequence alignments shows regions of similarity and how those regions have changed over time through insertions, deletions and mutations within the DNA sequence. We will use physical objects to represent the four nucleotides that make up DNA and have students determine the "best" alignment for the two sequences.

Ryan Zier-Vogel is a computer scientist with specialization in bioinformatics. He is an instructor and coordinating the new BSc in Bioinformatics at Langara College.



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Featured Guests

4. UBC Sensorimotor Physiology Lab at the School of Kinesiology

Calvin Kuo, Anthony Chen & Emily Miao

we will be demonstrating several wearable technologies for tracking aspects of human motion. We have a full wearable human motion tracking suit that allow us to track participants as they perform activities that we can animate for applications in entertainment (movies and video games) or health (injury tracking and monitoring). We also have a wearable band that tracks muscle activity that you can use to play flappy bird. Come by and learn about our technologies and where they might start to appear in your life over the next decade.

Calvin Kuo, Anthony Chen, and Emily Miao are members of the Sensorimotor Physiology Laboratory at the UBC School of Kinesiology. We are all at different stages of our careers and come from different backgrounds, but have all found a common ground in studying human sensorimotor physiology. Drop by and ask us about our work or career paths!

Calvin is a postdoctoral scholar with a Mechanical Engineering background who specializes in wearable sensor development.

Anthony is a doctoral candidate with a Kinesiology background who specializes in modeling and testing sensorimotor processes.

Emily Miao is a visiting medical student from the Netherlands who is interested in studying neurophysiological processes of sensorimotor physiology.

5. UBC School of Biomedical Engineering

Miguel Eichelberger

Mini Drop Tower Demonstration!

This mini drop tower is a scaled down version of the gravity-driven impact test systems that are used to certify most helmets. The magnesium head form is dropped on to a flat or angled steel surface and the acceleration of the head form is measured with an accelerometer mounted at the middle of the head. The US Department of Transportation, the Canadian Standards Association, the American Society of Testing materials and other organizations publish these standards. Helmets that are sold in stores have stickers showing which standard tests the helmets have passed. Most of these standards do not test impacts that result in head rotation or against impact surfaces such as snow or ice or pavement. These well-known limitations are a current international research priority which we are pursuing at SBME.



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Featured Guests

6. Vancouver Community College

Michael Brown, Jotie Grewalson, Kobra Khazaei, Klaudia Jurkemik, Jenn Kelly & Robyn Wood

Pond Ecology

Live protists and on the big screen!

Anatomy

Heart, brain and eyeball dissections!

Physics

Make water dance with the resonance bowl!

Vertebrate Diversity

Solve a skeletal puzzle!

Michael Brown, science instructor and protist wrangler extraordinaire.

Jotie Grewalson, department assistant and Sun Run team captain.

Kobra Khazaei, lab demonstrator and chemistry magician.

Klaudia Jurkemik, lab demonstrator and botany superstar.

Jenn Kelly, head of the Science Department, biology instructor and tide pool aficionado.

Robyn Wood, senior lab demonstrator and field biology powerhouse.

7. KPU's Lifespan Cognition Lab in the Department of Psychology

Zach Hamzagic

We are running a short experiment on decision-making. Participants read several hypothetical stories and indicate what they would do in that situation. We administer this task to people of all ages (as young as 3 years old), and examine how decision-making changes as people age.



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7. KPU's Lifespan Cognition Lab in the Department of Psychology

Zach Hamzagic

I am a recent graduate from KPU, with a bachelors (honours) degree in Psychology. I belong to the Lifespan Cognition Lab under the supervision of Dr. Daniel Bernstein. We conduct research on memory, decision-making, perspective taking and cognitive ability across the lifespan. My research interests include moral development, decision making and perspective taking in social situations. My experience includes research in false memory, academic cheating, moral and non-moral decision-making and perspective taking. I plan to start graduate school in September.

8. Douglas College Department of Engineering

Jared Cloutier

Discover how imagination becomes reality. See a laser cutter in action as it cuts out a variety of prototypes developed using CAD (Computer Assisted Design). Take home a cedar souvenir—logos, hearts, and more!

Jared Cloutier is a dedicated individual working in Douglas College's brand new Engineering Prototyping Lab. Jared comes from a mechanical background. He is a Certified Automotive Mechanic, part time Technology Education Teacher and full time Engineering Lab Facilitator. During his time at Douglas he has helped with the setup of the new Engineering space, ordering new machines, planning equipment layout, creating instructional materials, and facilitating proper use of the machines and equipment. Out of all the equipment in the lab: welding booth, HAAS CNC machine, milling machine, water jet cutter and laser cutter, he enjoys the diversity of the waterjet cutter best.

9. Douglas College Department of Chemistry

Dr. Brenda Addison-Jones & James Zhou

Love is all about the Chemistry. Write secret messages, see colour-changing flowers, ask for a wish from a genie in a bottle, and experience other chemical mysteries!



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9. Douglas College Department of Chemistry

Dr. Brenda Addison-Jones obtained her doctorate in Chemistry from SFU in 2000, with a specialty in Physical Chemistry. She began teaching at Douglas College in 2002. Brenda teaches first and second year Chemistry courses, particularly in the areas of Analytical Chemistry, Physical Chemistry, and Spectroscopy, and is also involved on-line teaching. She inspires undergraduates to further their learning by supervising guided research projects.

James Zhou is a Chemistry Lab Supervisor and contract Faculty at Douglas College. He enjoys designing and teaching interactive science activities for various K-12 groups. He completed his Master's degree in Materials and Surface Chemistry from SFU in 2014, and his Bachelor's degree in Chemistry from UBC in 2010.

10. Douglas College Department of Biology

Dr. Jennifer Barker

See if you can find where love resides in our models of a human heart, brain, and skeleton. Measure your own heart's performance with sphygmomanometers and pulse oximeters. Learn how other animal species display their amorous intentions.

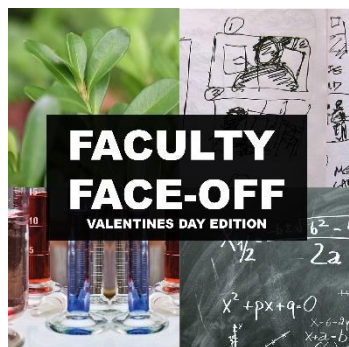
Dr. Jennifer Barker has been teaching in the Biology department at Douglas College for the last five years, primarily as an instructor of the college's introductory Human Anatomy and Physiology courses. She has a keen interest in making learning materials accessible to all by employing a variety of teaching strategies and tools, including adapting and creating freely accessible resource

11. Genome BC

Connie Leung

Learn how DNA turns into protein by strumming along to your favourite song – Guitar Hero style!

Connie is an Educational Coordinator at Genome BC and a Research Facilitator at Science World. She is a diabetes and obesity researcher, an instructor and a STEM enthusiast. She recently finished her PhD in Cell Biology at UBC. She loves communicating science and connecting with others. She shares her passion for self care and science by contributing to workshops, blogs and podcasts!



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Featured Guests

12. Science World's Future Science Leaders

Future Science Leaders: students from a science enrichment program at Science World

How well do you know STEAM careers? Play a game of STEAM career taboo with the Future Science Leaders. Learn about the programs Science World has to help you on your career path.

For your chance to win **TWO FREE passes to Science World**, fill out our survey [after 8:45pm at](https://scienceworld.survey.fm/faceoff)

scienceworld.survey.fm/faceoff

To check out photos and videos of the night go to scienceworld.ca/teen in two weeks!

Thank you for coming and we hope to see you at our next SWEET event on April 24!

Stay Curious,

Science World's Teen Advisory Group