

University Divisional Report – Faculty of Science, February 2019

The Faculty of Science (FoS) has the following to report:

Dean's Office:

The Faculty of Science is pleased to report the creation of a new school for Agriculture, Geography and Environment (tentatively named SAGE) which was recently approved by Senate and the Board, and will be effective April 1, 2019. The Department of Geography and the Environment (GATE) will become part of the school and will reside in the FoS. The department of Agriculture will be affiliated with the school as an Associate member until a decision is made to move to the FoS. Dr. Greg Schlitt will be interim Director of SAGE until a permanent Director is hired. We are excited for this new addition to the FoS and look forward to working with all its members.

Once again, UFV will be sending one science student to London, UK this summer (all expenses paid) to attend the [London International Youth Science Forum](#) (LIYSF). Last year UFV Physics Student, **Nikola Trotsuk** was the



recipient of this two week adventure. Nikola shared his experience at our Information Session held on January 24th. *"It was the greatest sharing experience of my life!"* The deadline for applications is February 25th and the shortlisted candidates will be presenting to our selection panel in early March.

The second installment of the FoS greenSPEAK Seminar Series was held on November 15th with UFV Physics Professor, **Dr. Tim Cooper**. His topic was climate change and global warming <https://blogs.ufv.ca/science/2018/11/16/climate-change-global-warming/>. **Dr. Lucy Lee** finished off 2018 with her presentation on Cellular Agriculture: Pros and cons of growing meat in a lab. <https://blogs.ufv.ca/science/2018/12/07/lab-grown-meat-is-coming/>. **Pat Harrison**, Biology Lab Instructor and Chair of the Centre for Sustainability has confirmed the following talks for the winter term:

- February - **Dieter Geesing**, Faculty of Applied and Technical Studies will present on the effects of climate change on farming in the Lower Mainland.
- March - **Dr. Lenore Newman**, Geography and the Environment will present on the current state of BC's agriculture land reserve.
- John Vissers, Fraser Valley Conservancy Co-Director will present on reducing the waste from house construction.

Preparation for the 2019 Fraser Valley Regional Science Fair (FVRSF) is underway. It will be held at UFV's Envision Athletic Centre April 3-6, 2019. The UFV members of the 2018/19 FVRSF Committee include **Dr. Lucy Lee**, Chair; **Caroline Majeau**, Administrative Coordinator; and **Janice Nagtegaal**, Financial Administrator; and

from the Department of Chemistry, **Dr. Jason Thomas**, Chief Judge/Ethics Officer; **Dr. Linus Chiang**; and from Biology, **Dr. Nathan Bialas**. Students from grades K-12 will be competing for cash prizes, awards and scholarships. Students from grades 7-12 will also be competing for a chance to receive an all-expense-paid trip to the [Canada Wide Science Fair](#) (CWSF) to be held in Fredericton, NB May 12-17, 2019.

The FoS was pleased to welcome Kori Czuy from the Werklund School of Education at the University of Calgary as part of the Dean's Seminar Series on November 28th. **Dr. Lee** introduced Kori to the large audience of 75+. Her talk entitled, (Re)weaving frayed connections: the depth of science and mathematics knowings within Indigenous stories, shared the journey towards ethno (mathematics) through Indigenous ways of knowing. Her talk was engaging and offered many opportunities for questions and discussions.

Biology Instructor and Science Faculty Advisor, **Debbie Wheeler**, along with the Science Advising Office hosted a Science Grad School Information Session on November 13, 2018. The students had the opportunity to gather valuable information on the grad school application process while hearing from current graduate students, faculty and academic advisors.



Tour of the Biology Lab with Lab Instructor, Carlos Leon Guevara and students

On November 14th members from UFV's senior administration and special guests from the community were invited to join **Dr. Lucy Lee**, Dean of Science on a guided tour of UFV's science facilities. The group visited the research labs and were able to see many of our students and faculty hard at work. Following the tour, Dr. Lee and the special guests attended UFV's Town and Gown where 2014 UFV BSc Graduate,



Andrew Alexander, UFV BSc Graduate 2014

Andrew Alexander, received the 2018 UFV Young Distinguished Alumni Award. Andrew is currently in the PhD program at UBC studying molecular biology and biochemistry. Andrew was also invited to speak at the Science Grad School Information Session the evening prior.



November was a busy month of our Super Science Club Team which is coordinated by **Robin Endelman**, UFV Math Professor. The fall semester finished off at Eugene Reimer Middle School in Abbotsford where they delivered fun and intellectually stimulating science activities. Pictured right is **Sukhanjote Mann**, Super Science Club Facilitator and 4th year science student.

Biology:

On December 4th, UFV students shared their CityStudio projects, findings, and recommendations with the City of Abbotsford staff, peers, faculty, and community members. **Dr. Sharon Gillies'** Biology Students **Cheyenne Schwab, Amiliya Ferando, Jaleen Mackay** and **Kaitlin James** were awarded 1st Place for their project "Increasing Wetland Biodiversity at Mill Lake Park through Habitat Restoration and Community Stewardship". **Sukmanprit Dhillon** and **Kajal Dhaliwal** won for their project "Improvements for Mill Lake Park | In-Depth Restoration of Biodiversity". **Kirpal Brar** and **Dilpreet Gill** were awarded honorary mentions for their project "The Effect of Drying and Cutting on Parrot Feather Growth." <https://blogs.ufv.ca/science/2018/12/10/biology-students-win-1st-place-for-their-citystudio-projects/>



Jaleen Mackay, Amiliya Fernando and Abbotsford Mayor Henry Braun

Twice a year the FoS features one of our amazing faculty members in a "Who's Who in Science". January 2019 featured **Dr. Greg Schmaltz**, Biology Professor https://blogs.ufv.ca/science/2019/01/08/greg_schmaltz/.



Dr. Greg Schmaltz, Biology
(photo: Debbie Wheeler)

Chemistry

Dr. Linus Chiang received a \$120,000, 5-year NSERC grant to support his work on sustainable fuel production through earth abundant catalysts.

The Chemistry Department received a donated liquid chromatography-mass spectrometry (LC/MS) instrument that will allow them to engage in research more effectively.



The Chemistry Department came through once again with another fun and festive display for the holiday season. They brought the spirit of Charlie Brown, Snoopy, **Linus Chiang** and **Lucy Lee** gathering around the Chemis-tree.

Math & Stats

On February 21st (Thursday of our Reading Break), UFV will be welcoming about 180 kids in grades 8, 9, and 10 to the Abbotsford campus, to compete individually and in teams in a math competition called Math Challengers. This is the Fraser Valley Regional competition and is organized by **Dr. Ian Affleck** and a team of mathematicians.

Dr. Stan Manu has been heavily involved with Math Education and Indigenous Communities, and has flown to Bella Coola for several weekends to deliver MATH 105 to Nuxalk College students during the fall term.

Also, **Drs. Stan Manu** and **Kseniya Garaschuk**, along with **Vanessa Radzinski** and other math faculty, staff and students are organizing the inaugural Fraser Valley's Mathematics Education Sq'ép, which will be held during the reading break on February 22nd at the Gathering Place of our Chilliwack campus. Sq'ép is a Stó:lō word for meeting or gathering, so the key objective of this mathematics education gathering is to foster a regional community of mathematics educators through sharing of ideas, examples, resources, teaching practices and research activities that incorporate Indigenous knowledge and world views of knowing into mathematical learning. We hope that this becomes an annual event and we are eagerly anticipating good participation from math educators in our community.