



SFU President Andrew Petter

SFU PRESIDENT'S MESSAGE

It has been another rewarding year for Aboriginal strategic initiatives at Simon Fraser University.

Thanks to the great work and support of many across the University and in our extended communities, we have much to report on in this special edition of *SFU News*.

SFU celebrated its 50th Anniversary this fall, and two Aboriginal events coincided with this important milestone for the University.

First, we opened the First People's Gathering Place at Harbour Centre—a community space recognizing the three local First Nations as well as the Métis and Inuit.

Second, SFU became steward of Bill Reid's Black Eagle Haida canoe during a witnessing ceremony at the Burnaby Campus. This beautiful installation represents the resiliency, creativity, vibrancy and vitality of Northwest Coast canoe cultures and is an honoured addition to the Academic Quadrangle.

In addition, we have made significant headway over the past year in our Aboriginal educational, research and community engagement endeavors.

SFU, the First Nations Health Authority and St. Paul's Hospital Foundation announced the establishment of the First Nations Health Authority Chair in Heart Health and Wellness. This historic Chair will take a holistic approach to First Nations wellness and disease prevention.

A gift of \$1.3 million from RBC will establish the RBC First Peoples Enterprise Accelerator and the RBC Award in Aboriginal Business and Leadership, both designed to support the development of Aboriginal entrepreneurs.

Other highlights from the past year include:

- The President's Dream Colloquium on Protecting Indigenous Heritage in Spring 2015.
- The Indigenous Peoples Career Stories event in February.
- The third annual week-long summer camp for Aboriginal youth from the Vancouver Aboriginal Friendship Centre (hosted by SFU Recreation).
- The second Academic Math Camp for Aboriginal youth.
- The National Aboriginal Day celebration on June 19 at the Indigenous Student Centre.
- SFU Indigenous Day on Sept. 24, sponsored by the First Nations Student Association.

This past spring, we also celebrated the graduation of some of the first cohort in our Executive MBA in Aboriginal Business and Leadership, and a second cohort is already underway.

Notwithstanding these developments, there is still much work to be done. We at SFU recognize our responsibility to support Truth and Reconciliation through education, research and engagement.

With this in mind, I look forward to making further progress together in the months and years to come.

Haida artist Bill Reid's Black Eagle canoe finds new home at SFU



Archaeology professor Rudy Reimer, of the Squamish Nation, emceeds the installation and witnessing ceremony for the Black Eagle canoe on Oct. 21 at SFU's Burnaby campus. Photo: Greg Ehlers

BY DIANE LUCKOW

Haida artist Bill Reid's Black Eagle canoe is a symbol of knowledge, community and cultural regeneration, so its installation at SFU's Burnaby campus is a fitting tribute to the University's 50th Anniversary.

The fiberglass canoe is a replica of famed dugout canoe Loo Taas, which Reid and other First Nations artists carved from a 750-year-old cedar tree for Expo '86. It was the first such canoe to be carved on the Northwest Coast in more than 100 years.

The Black Eagle is one of four replica canoes, two of them commissioned for the Museum of Civilization in Ottawa, where they were on display and also available for tourists wishing to paddle in the Ottawa River. The Black Eagle was later purchased by Charles and Gail Panczewski and donated to the Bill Reid Foundation, which loaned it to the VanDusen Botanical Garden.

To mark SFU's 50th Anniversary, the Black Eagle was moved to the Burnaby campus and officially installed outdoors under the northeast corner of the Academic Quadrangle at a witnessing ceremony on Oct. 21. More than 100 community members from both the University and First Nations gathered for the ceremony.

"By asking people to come and witness the canoe installation, we were demonstrating that SFU has an important responsibility to care for this art piece, and to use it for educational purposes," says Bryan Myles, director of the Bill Reid Centre.

Myles, who organized the canoe's move to SFU, says the ceremony aimed to uphold Coast Salish protocol in accordance with the Coast Salish lands on which SFU sits. SFU archaeologist Rudy Reimer, a member of the Squamish Nation, emceed the event. The ceremony included four witnesses: Nika Collison, curator, Haida Gwaii Museum, David Seymour, a member of the Mohawk Nation and funding services officer for Aboriginal Affairs and Northern Development Canada, Herb Auerbach, founding director of the Bill Reid Foundation, and SFU archaeologist Alan McMillan.

"The University has made it our commitment to honour the history, culture and presence of Aboriginal peoples," says SFU President Andrew Petter.

"Bill Reid's Black Eagle canoe represents the resiliency, creativity and vitality of Northwest Coast canoe cultures. We are honoured to become stewards of this canoe and to share what it represents with our students and the communities we serve."

The Black Eagle is part of a \$10-million First Nations art collection donated to SFU in 2011 from the Bill Reid Foundation.

EMBA ABL graduates to blaze new trails

BY DIANE LUCKOW

Ian Campbell, hereditary chief of the Squamish Nation, is a visionary who has ambitious plans for his people.

"We're moving away from managing welfare to managing wealth," he says. And now that he has graduated with an SFU Executive MBA in Aboriginal Business and Leadership (EMBA-ABL), he has the knowledge to forge ahead with ideas for projects. These include developing the Jericho Lands in Vancouver and pursuing development and business collaborations with other First Nations.

Campbell, 41, was among 17 students aged 32 to 57 who graduated this year from Canada's first credited MBA for established Aboriginal leaders, entrepreneurs and others working with Aboriginal communities. In 2013, *BCBusiness* magazine acclaimed the program as one of B.C.'s 10 most significant innovations.

Campbell concurs. He was accepted into the SFU Beedie School of Business program without an undergraduate degree, but with significant career experience. He says the program "absolutely delivered" on formal business skills and tools while also recognizing and addressing how to incorporate traditional Aboriginal protocols and knowledge.

"I'm employed as lead negotiator in intergovernmental relations for the Squamish Nation," he says. "We're engaged in significant projects throughout our territory that deal with intergovernmental relations, business opportunities and investment. So my focus in the EMBA was fourfold: creating a vision, structuring our nation's corporate division, building capacity within the nation and inspiring our young people."



Ian Campbell, hereditary chief of the Squamish Nation.

Another graduate, Pamela Goldsmith-Jones, was elected as Liberal MP for West Vancouver-Sunshine Coast in the Oct. 19 federal election. She was the only non-Aboriginal student in the first cohort.

The program's second cohort began in September 2015 with 30 students, five of whom are not Aboriginal.

Campbell says the 33-month part-time EMBA ABL program is very timely, and credits SFU's courage and foresight in creating it.

Program director Mark Selman, who conceived and championed the program, says it addresses an important change in B.C.'s business environment.

"First Nations are getting access to resources they never had in the past," he says. "They have money to invest, and opportunities. Businesses are realizing that in terms of managing their risks, they need to work with First Nations."

Adds Campbell, "As Canada goes through reconciliation we really have to ask ourselves, 'what are the actions that go with that?' The leadership SFU exemplified in creating this program has inspired many of our Indigenous groups to move beyond the status quo. We're now in transition to recreate ourselves—not in isolation but with the rest of Canada."

LET'S TALK

Don't miss the upcoming Lecture Series on Aboriginal Issues in March 2016. Members of SFU's Indigenous Research Institute will speak on topics such as Indigenous leadership in the University, international Indigenous research, sexuality and powwows. Hosted at SFU's Vancouver campus, the event is a partnership between the institute and SFU's Vancity Office of Community Engagement at SFU Woodward's. Check for updates at: www.sfu.ca/sfuwoodwards/community-engagement.

NEW AWARDS ENCOURAGE ABORIGINAL ENTREPRENEURSHIP

The RBC Foundation is funding two new awards each year for the next 10 years to encourage Aboriginal undergraduate and graduate students to consider entrepreneurship as a career option.

The \$10,000 undergraduate RBC Award in Aboriginal Business and Leadership lets students take advantage of SFU's many innovations and entrepreneurship initiatives, such as the new interdisciplinary Entrepreneurship and Innovation Certificate.

Graduate awards worth a total of \$20,000 annually will offer support for new or continuing students in the Executive MBA in Aboriginal Business and Leadership.

WORKSHOP PROMOTES ABORIGINAL AWARENESS

First Nations presenters Petula Maxwell (Dakelh) and Catherine Blackstock (Gitksan), from Aboriginal Affairs and Northern Development Canada, played to a packed audience in September at SFU's first Aboriginal Awareness workshop for staff and faculty.

Their comprehensive three-hour presentation outlined the history of Aboriginal peoples in Canada, from the 1763 Royal Proclamation, which dealt with First Nations territorial rights in North America, to the 1982 Canadian constitution, which officially recognized and protected Aboriginal rights. They also addressed Aboriginal cultural protocols, and debunked popular myths about Aboriginal peoples relating to taxation, housing and education.

William Lindsay, director of the Office for Aboriginal Peoples, says of the event, "We wanted to provide participants with a better understanding of the history, values, customs, beliefs and diversity of Aboriginal peoples in Canada, and B.C. in particular.

"Our goal is to help participants to communicate and work effectively with Aboriginal peoples, and to increase their respect for Aboriginal cultures and values."

Lindsay is now working with SFU's Teaching and Learning Centre to develop in-house Aboriginal awareness materials.

BIG DRUM BEATS FOR SFU

To commemorate SFU's 50th Anniversary, the Office for Aboriginal Peoples has acquired a Big Drum, crafted by First Nations artist John Sam, a member of the Tutshone Wolf Clan.

"The drum has always been a part of First Nations culture, and is used to strengthen the spirit," says William Lindsay, director of the Office for Aboriginal Peoples.

The drum will be used at SFU ceremonial occasions and also at Aboriginal events and festivities.



Math Catcher and its founder capture national attention

Veselin Jungic, founder of SFU's Math Catcher Program—Mathematics through Aboriginal storytelling—was honoured earlier this year when the Society for Teaching and Learning in Higher Education (STLHE) selected him as a 3M National Teaching Fellow.

He is one of just 10 Canadians to receive this distinction in 2015, and one of 278 Fellows whose work "embodies the highest ideals of teaching excellence and scholarship with a commitment to encourage and support the educational experience of every learner."

Four years ago Jungic established the Math Catcher Program to promote and encourage mathematics and scholarship among Aboriginal students. The program encompasses math tools and activities that incorporate Aboriginal traditions and cultures, as well as school visits throughout B.C., and workshops and math camps at SFU for Aboriginal high school students.

"Working with students in SFU's Aboriginal University Prep Program has confirmed my belief that there is no lack of talent and interest for mathematics among Aboriginal learners," says Jungic.



Veselin Jungic stands in front of a showcase featuring illustrations from a series of books and videos he has created for young Aboriginal students.

"It has also convinced me that additional effort should be made to reach out to Aboriginal elementary and high school students to help them recognize the importance of mathematics and how mathematics forms the basis for many of our daily decisions and lifelong choices."

Jungic presented the Math Catcher program to the Alberta Council on Admissions and Transfer last April and to Northwest Territories teachers in August.

He also arranges for SFU graduate students to volunteer as tutors in math and science for adult learners at the Native Education College in Vancouver, and co-organizes the SFU Academic Summer Camp for Aboriginal Students.

New partnership showcases Indigenous students' research

More than 120 guests attended the first SFU/UBC Indigenous Graduate Symposium, "Indigenizing the Academy," at SFU's downtown campus last March.

The event kicked off a four-year pilot partnership between the two universities to co-host and co-sponsor this event showcasing Indigenous students' research and scholarship. For the past 12 years, the event has been hosted solely by UBC.

The symposium featured keynote speaker David Newhouse, chair of the Department of Indigenous Studies at Trent University, and keynote respondents Ethel Gardner of SFU and Amy Parent of UBC. Parent is now an SFU education professor.

William Lindsay, director of SFU's Office for Aboriginal Peoples, says the symposium was also a cultural day.

"A traditional 'witnessing ceremony' opened and closed the event," he says. "There were First Nations elders and cultural advisors attending. The day also featured drumming and traditional cedar brushing/cleansing."

According to official SFU Institutional Research and Planning data, the University has more than 130 Indigenous graduate students. Ten participated in the symposium.

Cheryl Inskter, a master's student in counseling psychology in the Faculty of Education, helped plan last year's event.

"Being a part of the IGS planning committee helped me gain valuable experience in planning a symposium," she says.

"The symposium peaked my interest in areas that I wish to explore as a graduate student. The experience also allowed me to build connections that made me feel a sense of belonging in my first year at SFU as a graduate student."

Basketball festival returns in 2016



More than 20 Aboriginal basketball teams from around B.C. and Alberta are expected to turn out for the second Native Basketball Tournament/Festival at SFU's Burnaby campus on May 20-22, 2016. Last year's event attracted hundreds of spectators, and organizers expect this year's event will be equally popular. Aboriginal entertainment, food, crafts vendors, and elders will all once again be a part of the festivities. The tournament is a community partnership between SFU and the Native Education College.

Squamish Nation councillor serves on SFU board

In December 2014 Chris (Syeta'xtn) Lewis, of the Squamish Nation was appointed by Order-in-Council to the SFU Board of Governors. An elected councillor for the Squamish Nation, he is one of the nation's two official spokespersons for Chief and Council. He focuses on intergovernmental affairs, governance, education and fisheries. He also serves as a board member of the First Nations Employment Society and the Coho Society of the North Shore. An SFU alumnus, he holds a BA in geography and First Nations Studies. His BOG appointment has been extended, and will end in December 2018.



Beedie hosts Phil Fontaine

Aboriginal leader Phil Fontaine, former National Chief of the Assembly of First Nations, delivered a dynamic presentation on resource development and Aboriginal peoples during the fall semester at the Segal Graduate School of Business.

The packed audience included students from the second cohort of the Beedie School of Business' Executive MBA in Aboriginal Business and Leadership (EMBA ABL).

During his opening remarks, Fontaine noted how impressed he was during discussions earlier in the day with students in the EMBA ABL program.

"I had an incredible visit with a number of outstanding students," he said. "It was most inspirational, but they also intimidated me—they are so bloody smart."



Fontaine said tremendous progress has been made in the last few decades in improving relations between Aboriginal peoples and resource development companies, with the idea of sustainable development as a key goal. He says there is hope that this trend will continue.

2015 Graduate Aboriginal Scholarships

Each year, SFU selects two Aboriginal graduate students to receive Graduate Aboriginal Entrance Scholarships. The master's degree, worth up to \$30,000 over two years, and the PhD, worth up to \$54,000 over three years, are both sponsored by the Office of the Vice-President, Academic. Candidates must have Aboriginal ancestry, a minimum grade point average of 3.5 (out of a possible 4.33), and have demonstrated outstanding achievement, with particular emphasis on intellectual ability, originality and ability in research. The successful applicants for the 2015 scholarships were Valerie Bob and Monique Auger.



Valerie Bob is studying for a PhD in the Faculty of Education.

PhD student explores impact of music on language renewal

At 58, Valerie Bob has had a long career in social services and education after earning a BA in social work and an MA in First Peoples' education.

Now, with the help of a Graduate Aboriginal Scholarship, she's embarking on a PhD program that combines her interests in native language renewal and ceremonial music.

Bob's Indigenous heritage is rooted in the Penelakut First Nation on Vancouver Island, and the Nez Perce Tribe in Idaho. Her Hul'q'umi'num' dialect was spoken in the home but she was forced to lose much of her language during her school years in government church-run schools. Today, she is one of just 100 speakers who are semi-fluent in the language, while a further 50 speakers, all elders, are fluent.

Bob has been struggling to relearn her language for the past six years but hasn't found it easy, since there aren't many formal teaching resources.

And because she was punished for speaking her language at school, she sometimes still experiences a negative emotional reaction when trying to speak it.

"I can practice, practice, practice and sometimes it won't come out," she says.

But as a teacher, Bob noticed that First Nations children always respond well to lessons that incorporate traditional music. During a recent stint teaching Kindergarten to Grade 3, she experimented with her nation's traditional songs, adapting them to teach basic Hul'q'umi'num' sentence structure. She found it worked quite well.

That's when she approached SFU education professor Donna Gertz about pursuing a PhD that explores ways to teach Hul'q'umi'num' that incorporate traditional ceremonial music.

"I'll be applying Indigenous research methods to my studies," says Bob, which means she'll be considering language learning from a traditional, First Nations holistic perspective. She'll take into consideration the meaning of traditional songs within her language and culture, and also possibly produce some contemporary cultural songs suited to today's learning environment.

Bob has also started a local language collective in Cowichan, B.C. that is writing and translating 100 stories into Hul'q'umi'num'. The group has written approximately 60 stories, and Bob's contribution has been four stories, complete with illustrations.

"There is a lot of healing I've found in our culture, our songs and our spirituality," she says, "and I felt that my studies should lead in that direction. It's not about deconstructing First Nations education but about renewing it through our language, culture and spiritual songs."



Monique Auger is pursuing a master of science in the Faculty of Health Sciences.

MA student seeks to address Métis mental health issues

Is there a connection between cultural continuity and mental health for Métis people?

Monique Auger, a proud Métis woman from Vancouver Island, thinks there is. She is using her Graduate Aboriginal Scholarship to pursue a master of science, in the Faculty of Health Sciences, to explore this issue.

"There is a problem with mental health in the Métis community," she says. "The epidemiological data show that Métis people suffer from mental health disparities such as depression and anxiety disorders. But there's not a lot of contextual information as to why this is the case. That's a gap I would like to address."

Métis people are the descendants of the first unions between European settlers and Indigenous women. Today, the Métis are seen as a distinct nation, separate from First Nations and Inuit communities. In speaking about the impacts of ongoing colonialism with regard to her own family's cultural discontinuity, Auger thinks this may be a contributing factor toward high rates of mental health problems.

She says there is a lack of overall health research addressing Métis health issues, and she would like to be at the vanguard of researchers

who can address this issue.

Currently a consultant in Indigenous program evaluation with Reciprocal Consulting, she holds a BA in First Nations Studies from the University of Northern B.C. She has held a number of positions in community-based Aboriginal health research across the province, including with Indigenous Research Partnerships at UBC, and the Centre of Aboriginal Health Research at the University of Victoria. She also completed a community-based research project for her honours thesis at UNBC.

"At UNBC I conducted a qualitative study working with First Nations people with lower literacy levels. I looked at access to eye care and the social context of vision. That was such an amazing experience that I knew I wanted to continue with research, learning and working with community to build meaningful relationships—because that's what leads to successful research."

Auger is very involved in B.C.'s Métis community. She sits on the boards of the Unified Aboriginal Youth Collective as a youth representative for Métis Nation B.C., as well as the Knowledgeable Youth Association, which works to strengthen cultural connections within Vancouver's Aboriginal youth population.

She chose SFU for her master's program because she wanted to learn under the supervision of John O'Neil, dean of the Faculty of Health Sciences.

"He has done some amazing work in Aboriginal health," she says. "He's culturally competent and forms meaningful partnerships. It was important to me to find someone like that."

Aboriginal faculty members to increase

The Faculty of Education has just hired the first professor to be recruited under SFU's Aboriginal Faculty Recruitment Plan.

Established by the VP Academic's office, the plan, which is unique in Canada, provides funding for up to two new Aboriginal faculty positions each year. The VP Academic's office will pay for three years' worth of salary and benefits for each new Aboriginal professor, after which the faculty must continue to support the position.

The plan's goal, says VP Academic Jon Driver, is to encourage faculties to hire more Aboriginal professors.

Kris Magnusson, dean of education, says, "I think any incentive program is good if it can get folks thinking about the issues around increasing the number of scholars who are of Aboriginal descent. In the education field there are two issues: having scholars who are Aboriginal, and having indigenous-education scholars."

Since initiating the plan, the VP Academic's office has approved three Aboriginal faculty positions—one each in business, health sciences and education. Two more positions are being considered—for the Faculty of Communication, Art and Technology, and the Faculty of Environment.

However, only the Faculty of Education has filled its Aboriginal faculty position.

"One of the problems we face is finding people to fill these positions," says Driver. "That's why we are also supporting generous scholarships for Aboriginal graduate students who are in programs that are likely to result in the students becoming professors."

William Lindsay, director of SFU's Office for Aboriginal Peoples, says Aboriginal faculty members can assist with indigenizing curriculum and programs, developing relevant community partnerships, and attracting and mentoring Aboriginal students.

"It's a long-term project, but we're not giving up. We've set up this program—now let's see what we can do."

Research chair to lead heart health research for First Nations Peoples



New chair Jeffrey Reading has more than two decades of experience enhancing knowledge related to Indigenous health issues.

SFU, together with the First Nations Health Authority (FNHA) and St. Paul's Hospital Foundation, have established a First Nations Health Authority Chair in Heart Health and Wellness at St. Paul's Hospital.

The position, the first of its kind in Western Canada, will place a holistic focus on First Nations and Aboriginal peoples' cardiac health, and drive research that can improve health outcomes.

"This chair represents an historic partnership to advance knowledge and prevention of chronic diseases in First Nations communities," says SFU President Andrew Petter.

"It also reflects SFU's commitment as Canada's most community-engaged research university to support First Nations peoples on their path to restore health and wellness in their communities."

Appointed to the \$1.9-million chair is Jeffrey Reading, most recently interim director and professor at the Waakebiness-Bryce Institute for Indigenous Health at the University of Toronto's Dalla Lana School of Public Health. He is also a professor on leave from the University of Victoria's School of Public Health and Social Policy.

Reading will lead research and education on critical policy related to heart health, and disease prevention and control associated with chronic

diseases among First Nations people. As chair, Reading will be an active leadership voice locally, provincially and nationally, advancing strategies to develop a program of excellence in First Nations wellness and disease prevention.

Co-located at SFU, the FNHA and St. Paul's Hospital, Reading's responsibilities include leading research to:

- develop protective health promotion strategies that include cultural and spiritual considerations;
- understand risk factors related to the social determinants of health;
- produce health knowledge for policies and programs

He will also develop preventive disease databases to increase research infrastructure and capacity in First Nations communities. Mentorship at SFU and St. Paul's will help to develop culturally competent and respectful cardiac health research and knowledge translation by and for First Nations communities.

Says Reading, "This chair at St. Paul's Hospital and SFU is a brilliant collaboration to link individual and population-level patient advocacy to improved access to cardiac and vascular treatment and care while pursuing advanced research and Indigenous knowledge.

"I am very excited by the opportunity to focus on prevention of cardiovascular disease and to improve heart health and well-being among First Nations in British Columbia."

First of traditional languages apps ready for testing in new year

Marianne Ignace has an ambitious plan. Within the next five years, she hopes to have developed language-learning apps for speakers and learners of some 12 First Nations languages in B.C. and Yukon.

The director of SFU's First Nations Language Centre (FNLC), she has a \$2.5-million project grant from the Social Sciences and Humanities Research Council to get the job done.

The seven-year project, begun in 2013, is a partnership between the FNLC and 22 First Nations community groups in B.C. and Yukon, representing 12 languages, that are dedicated to maintaining and revitalizing their Indigenous dialects.

Over the past year, Ignace has been working with the Secwepemc, Upper St'at'imc (Lillooet), Skwxwu7mesh, Tahltan, Haida, Ts'msyen, and Tlingit, who are all in the midst of designing the first level of their apps.

But these language-learning app projects are not simple.

"The scope and sequence for the content includes conversational materials, short narratives, vocabulary and pronunciation practice, grammatical explanations and exercises, and self assessments," says Ignace. "And because the languages are so different from one another, it really isn't feasible to work with a single content template."

For each language, the local speakers, elders and learner activists work with academic collaborators to design the content, record the sound files, and develop visuals.

The FNLC is co-creating the apps with the University's Stavros Niarchos Foundation media lab, using a language tutor platform initially created for modern Greek.

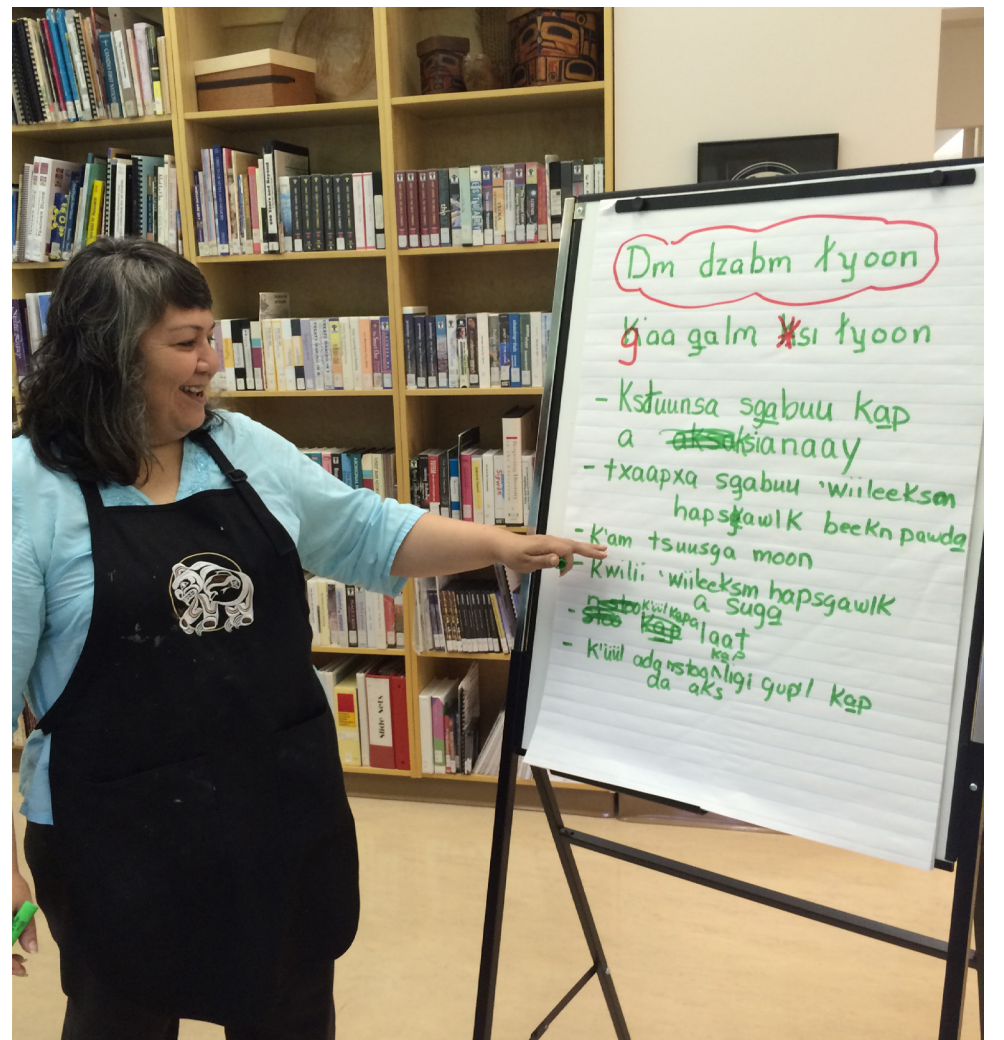
By early 2016, some of the apps will be tested in pilot versions, and Ignace hopes some of the first apps will be available to groups of learners later next year.

"Part of the plan is to make some of them available as credit courses so that people wherever they live can advance to at least a high beginner/intermediate level," she says.

Some communities may choose to maintain their language app on a server and have users log into it, either via global access or via a password. Others may decide to share them with learners across the world.

Ignace says that while a growing number of First Nations people no longer live in their communities, many are interested in learning their ancestral language.

"The language apps will provide a unique avenue to do doing that."



Lucy Bell spent three-and-a-half months last spring at a Haida language bootcamp in Masset, Haida Gwaii. Here, she is pointing out Haida grammar patterns.

SFU First Nations faculty and staff recognized among Education 100

Three SFU First Nations faculty and staff members are cited among the Education 100, a selection of UBC education graduates acknowledged for their dedication, impact and expertise as community leaders in their professional area.



Education professor Amy Parent (Nisg'a) is researching how Aboriginal youth experience the transition from high school to university.



William Lindsay (Stoney-Cree), director of the Office for Aboriginal Peoples. He has devoted much of his career to building bridges between the educational needs of First Nations peoples and the post-secondary institutions that serve them, for the benefit of both communities.



Ethel Gardner (Stó:l) has been a key contributor to Aboriginal language revitalization and Aboriginal education. An SFU PhD alumna, she is also noted among SFU's 50 Inspiring Alumni. She is now a member of SFU's Elders' Program.



Anika Robertson says the camp exceeded her expectations and inspired her to aim for university.

Summer camp prepares students for university

BY ALLEN TUNG

Building Lego Mindstorm robots, playing basketball and Quidditch, and stargazing at the Trottier Observatory were welcome diversions for the 26 high school students who participated in SFU's second annual Academic Summer Math Camp for Aboriginal Students.

The full-time, month-long program gives the Grades 8-to-11 students a tantalizing glimpse of university life while they practice their skills in math and English.

The camp's objective is to prepare them for success in university by helping them develop a solid foundation in math and English. The experience should also help them realize that attending university is a viable option.

"Math and English are the two main prerequisites for them to succeed in post-secondary education," says Veselin Jungic, the camp's organizer, and a lecturer in the Department of Mathematics.

"That's why we have math and English classes every day throughout the camp."

Anika Robertson and Caleb Simpson, who are both 15 years old and entered Grade 10 in September, say the camp exceeded their expectations and affirmed their interest in attending university.

"I want to try and get a scholarship," says Robertson, who is from the Ojibwe Nation. "I definitely think I might try getting into SFU."

Simpson, who is Mohawk, adds, "There are a lot of awesome people that I met. I made a lot of friends, and math was a lot of fun."

At the camp's closing ceremonies on July 31, it was clear from the hooting and hollering that these students had formed lifelong friendships.

"I think the friendship and the bonds that they built among themselves are the biggest highlight," says Jungic. "Just a month ago, they were a bunch of strangers from all over the Lower Mainland."

At SFU, the majority of Aboriginal undergraduate students are in the arts and social sciences. Jungic says the camp's long-term goal is to change this trend.

"We want to enable, and encourage, Aboriginal learners to enrol in programs that lead to careers in the fields of science, technology, engineering and mathematics," he says.

The camp is organized and supported by the Pacific Institute for Mathematical Sciences (PIMS), SFU's Faculty of Science, SFU's Office for Aboriginal Peoples, IRMACS Centre, and SFU's Department of Mathematics. The NSERC PromoScience Program provides partial financial support for the camp.



The Tzo'kam singers from the St'at'imc (Lillooet) Nation. Tzo'kam means "chickadee" and "visitors are coming" in the Stl'atl'imx language.

SFU Indigenous Day shares culture with community

The Burnaby campus community was treated to the sights, sounds and tastes of Indigenous culture during the second annual SFU Indigenous Day in September.

Organized and hosted by the First Nations Student Association (FNSEA), the event featured twice as many performers and artists as last year, many of them from across Turtle Island (North America), and attracted a large audience.

Headlining performers were award-winning Aboriginal hip hop artist and motivational speaker K.A.S.P., the internationally renowned Git Hayetsk: People of the Copper Shield, and recording artist Kristi Lane Sinclair. In all there were 10 performing groups, three musicians, a DJ and a rap artist.

As well, 28 artists showcased their work, including painter Brandon Gabriel, who is an Indigenous arts instructor with the University of the Fraser Valley, and jewelry designer Rory Dawson.

More than 600 visitors made dream catchers at a free

workshop, while others participated in an Elders' talking circle, listened and watched performers, and feasted on bannock tacos and traditional teas.

Sponsors included SFU's Office for Aboriginal Peoples, SFU Radio Station CJSF 90.1, and the Simon Fraser Student Society.

This year, event organizer Laura Forsythe invited local school districts to bring their students to campus to learn more about Aboriginal culture. Students from seven school districts, three universities and three colleges attended.

"It has been a real honour to organize an event that shares our culture with the SFU community," says Forsythe. "It is through this type of reconciliation that we here at SFU can do our part to open our hearts and minds for real change in academia, but ultimately it begins with introducing ourselves and our culture to the SFU community."

RADIUS SFU introduces new First Peoples enterprise accelerator



RADIUS
SOCIAL INNOVATION
LAB AND VENTURE
INCUBATOR

A new Aboriginal enterprise accelerator will accept its first cohort of six to eight social enterprise start-ups in spring 2016 in the Lower Mainland.

The accelerator program aims to advance early-stage businesses and social ventures that contribute to a sustainable, healthy economy.

Delivered by RADIUS, a social innovation lab and business incubator at SFU's Beedie School of Business, the accelerator program will work with the Tale'awtxw Aboriginal Capital Corporation (TACC), Stó:l Community Futures (SCF), and SFU's Executive MBA in Aboriginal Business and Leadership.

Donovan Woollard, venture director at RADIUS, says the new accelerator will offer a proven, hands-on, entrepreneurial growth program that adds value to the resources offered through TACC and SCF.

"The cohort is a great way to learn and build a lasting community of practice so that entrepreneurs have others to draw on when they have questions, or exciting results to celebrate,"

says Woollard. "We're looking for ventures that have already demonstrated some market traction and are getting ready to grow."

Says SFU President Andrew Petter, "With this ground-breaking accelerator, SFU is helping to develop a new generation of Aboriginal leaders in the realm of entrepreneurship and innovation."

The accelerator is funded through a 10-year, \$100,000-a-year gift from the RBC Foundation.

Zabeen Hirji, RBC's chief human resources officer, says, "We are proud to partner with SFU to help support creative and innovative Aboriginal entrepreneurs, and student leaders who can identify new opportunities, resources and emerging technologies that will help their businesses and social ventures grow. Their contributions will lead to economic development and community well-being—two things that are imperative to the growth of our country and the protection of our future prosperity."



Professor Nathalie Sinclair observes how an Ojibwe student learns to use the TouchCounts app, which Sinclair designed to help children make a correspondence between numeric symbols and their quantities, touch and sounds.

Early-number learning and language revitalization a dynamite combination

BY DIANE LUCKOW

SFU mathematics education professor Nathalie Sinclair has been working with the Ojibwe and Nuu-chah-nulth First Nations to translate her early-numbers mathematics app into their languages.

Called TouchCounts, the free app lets children use their fingers, ears and eyes to more easily learn to count, add and subtract.

The app is very different from traditional drilling and repetition games.

Instead, it lets children create and manipulate their own numbers. For example, when they tap once on an iPad screen, up pops one circle with the numeral 1 depicted in it. At the same time, they hear the word "one".

"The idea is to help children make a correspondence between the quantity, the symbol, the touch and the sound," explains Sinclair.

"If they touch the screen once with one finger, they see one circle and the numeral 1, and they're hearing the word. If they tap the screen with two fingers simultaneously, they'll see two circles—one with the numeral 1 on it and the other with the numeral 2, and hear the word "two." Every time they touch the screen, they get the next number in the sequence."

Sinclair, who holds a Canada Research Chair in Tangible Mathematics Learning says, "You can see the learning happening right before your eyes."

The idea of translating the app into First Nations languages struck Sinclair during a visit to Fort Frances, Ontario last year with a team from the Ontario Institute for Studies in Education. She went along to

try out TouchCounts with children at the Aboriginal Headstart program and present it to their teachers.

While she was playing with the kids and demonstrating the app, one of the educators started repeating the numbers in Ojibwe.

With the prompting of elder Nancy Jones of Nigigoonsiminikaaning First Nation, she realized TouchCounts needed to be translated into Ojibwe.

"With the help of Jason Jones, the Ojibwe language curriculum coordinator for the Rainy River District School Board, I was able to record Lee, Jason's young nephew, saying the words in Ojibwe, and when I returned to SFU we started working on the prototype."

At the same time, she began exploring how to approach B.C. First Nations about translating the app, and met with the First Nations Education Steering Committee.

"They liked the idea and the project. Early-number learning and language revitalization is pretty much a dynamite combination."

Next, Sinclair presented TouchCounts to educators attending an Aboriginal mathematics day at UBC where Elisa Cha, a teacher from Zeballos Elementary Secondary School, expressed interest.

So Sinclair and Nick Jackiw (the lead software designer and application programmer) travelled to the tiny village on Vancouver Island's northwest coast last May, with the guidance of language coordinator Victoria Wells. They discovered the school had tremendous technology resources, and that the students were very accustomed to using iPads.

"The kids loved the app," she says. "They were curious and took great pleasure in making big numbers."

The app is designed to feature children speaking the numbers. But getting children to say the numbers at the same pitch and volume in a consistent way is not easy, and it's all the more difficult when they are just learning to speak in their First Nations language. And since so few people speak these languages, there are concerns about whether the words are being pronounced correctly.

In Zeballos, Wells helped Sinclair and Jackiw find 10-year-old Aliya Mack to record as many words as she could, but they only made it to 30. They are planning to return in January 2016 to record the rest of the numbers with Mack, who has been practicing.

Sinclair says one of the most interesting aspects of the project has been discovering how differently the Nuu-chah-nulth and Ojibwe languages structure their numbers, which reveals subtle differences in the way different cultures conceive the concept of number.

"That is a big goal of doing this work too—to preserve different ways of thinking about numbers."

Sinclair would like to hear from other First Nations interested in having the app translated. Her email is: nathsinc@sfu.ca.

To try out the free app, download it from the App Store (search TouchCounts) visit the website at www.touchcounts.ca or see it in action on YouTube: TouchCounts.

Students curate First Nations stone tools collection

BY DIANE LUCKOW

Earlier this year, 18 students enrolled in Archaeology 349 had an extraordinary opportunity to identify, catalogue and photograph 900 First Nations stone tools, some dating as far back as 10,000 years ago.

Fort St. John farmer Len Donaldson had collected the flaked projectile points, scrapers and hide-working tools as he ploughed his fields every spring.

"A wonderful opportunity presented itself when Mr. Donaldson offered the collection to SFU last year," says Barbara Winter, curator of SFU's Museum of Archaeology and Ethnology.

"It was both a hands-on project in museum curation for the students, giving them experience in how to develop a collection, and a wonderful way to support First Nations communities in the north," adds Winter, who supervised the students' work.

The collection will be returned to the Treaty 8 First Nations of northern B.C., whose ancestors still live in the area where these artifacts were discovered.

Returning the collection, says Winter, will not only repatriate the Treaty 8 First Nations' cultural heritage, it will also help them to more fully capture their narrative history.

The Treaty 8 nations will house the collection at the Tse'K'Wa Interpretive Centre they are planning to establish at Charlie Lake Cave, one of their ancestral sites.

The Charlie Lake Cave site, excavated in the 1980s and 1990s over several seasons by SFU archaeology professors Knut Fladmark and Jon Driver, has yielded important information about B.C.'s early people and animals at the end of the last ice age. The Treaty 8 bands purchased the site in 2014.

Winter says the stone tools provide new information about an area where archaeological evidence is scarce and migration theories are still hotly debated.

She will be advising the Treaty 8 Nations on the new interpretive centre's design and its proposed exhibits, programs and policies.



Identifying and cataloguing the Tse'K'Wa collection of ancient First Nations stone tools.



Cree student Lindsay Wainwright pursued co-op, research and community engagement opportunities that helped define her career direction.

Community engagement and co-op jobs clarify career choice

BY DIANE MAR-NICOLLE

Dynamo Lindsay Wainwright, 32, had already completed her second year of medical school at UBC when she attended SFU's June 2015 convocation ceremonies to pick up her SFU bachelor of science.

But that's typical for Wainwright, who is happiest doing two things at once.

The mature Cree student had already earned a horticultural diploma at Kwantlen University and spent a few years orchid farming in New Zealand and Canada before enrolling in SFU's biological sciences department in 2009.

Despite a heavy course load, she carved out time to volunteer with SFU Peer Programs, the First Nations Student Association, the Indigenous Student Centre and, outside of SFU, at Royal Columbian Hospital and the Urban Native Youth Association.

Her volunteer work in professor Nicholas Harden's lab in early developmental biology led to a semester of full-time paid work funded by an SFU Undergraduate Research Award. Additionally, Wainwright undertook two co-op work placements that helped her acquire basic scientific research

skills and earned her a National Science and Engineering Research Council of Canada award.

Her diverse academic and community experiences ultimately cemented her decision to pursue medicine.

Of her SFU experience Wainwright says, "SFU has an excellent Aboriginal community and tons of resources. There are lots of opportunities for undergrads to do research, which opened many doors for me."

The two-time recipient of the Aboriginal Community Engagement Award adds, "I appreciated that SFU has financial awards that recognize community involvement and not just grades. It just makes sense to reward those who are improving their community."

Last summer Wainwright took on a research position with UBC's Department of Plastic Surgery, a specialty she's considering after medical school.

Wainwright was among 67 self-identified Aboriginal graduates eligible for the spring convocation, with two receiving PhDs, 24 receiving master's degrees and 41 receiving undergraduate degrees.

Spreading the mathematics love

BY ALLEN TUNG

The majority of SFU's Aboriginal students are in the arts and social sciences, but not Jamie Nordio. He says a philosophical revelation inspired him to choose mathematics.

"I wanted absolute truth and I think mathematics is the only subject that offers it," says Nordio, who is Métis and graduating with a bachelor of science.

Reflecting on his undergraduate studies, Nordio says the biggest challenge was managing a full course load. In spite of this, he finds time to volunteer with the SFU IRMACS Centre's Math Catcher outreach program.

Math Catcher strives to promote mathematics and science through Aboriginal storytelling. Nordio, along with other volunteers, visits schools throughout British Columbia to stimulate students' interest in mathematics.

"It's truly a pleasure of mine to go out and promote something that has so much meaning to me," he says, "especially when I can see in their faces the excitement that I am bringing to a subject typically seen as dull, boring and arduous."

In September, Nordio began his master's program and plans to do his research on applied

mathematics. Applied mathematicians use mathematics to describe, model and solve real world problems.

He's working as a research assistant with the Complex Systems Modelling Group's IMPACT-HIV project, modelling HIV epidemics at the population level and looking at its rates of change.

"We use equations to describe the population and extract information from it," Nordio says. "We look at what's going to happen if, for example, we raise funding for a particular intervention program."

He sees tremendous potential for the research he is doing with IMPACT-HIV in supporting treatment targets for the year 2020 for UNAID, the Joint United Nations Programme on HIV/AIDS. For instance, a model developed by an IMPACT-HIV researcher is helping the project group gain new insight into implementation strategies for reducing the incidence of HIV.

Nordio says his goal for his master's program is simple—to be the best teaching assistant and researcher he can be.



Jamie Nordio, who graduated with a B.Sc. this year, is now pursuing a master of science in mathematics.



Justina Di Stasio, of Norway House Cree Nation, excelled at both wrestling and academics.

Alumna collected BA on way to wrestling silver in 2015 Pan Am championships

BY JUSTIN WONG

Growing up, Justina Di Stasio had always loved wrestling, but never imagined becoming the accomplished athlete she is today—a silver-medal winner in the July 2015 Pan American women's freestyle 75kg wrestling championships, and winner of the 2015 David Schultz Memorial. She is also a member of the 2015 Canadian Olympic Wrestling team.

Di Stasio, who graduated from SFU with a bachelor of arts in English in June 2015, was a member of the SFU Clan women's wrestling team. She received sponsorship to pursue wrestling from her band, the Norway House Cree Nation in Norway House, Manitoba.

Despite her love of the sport, however, she didn't win a single round during her first four months in the Clan wrestling program.

"But I never thought of quitting," she says. "I looked up to the senior women's team—they were amazing wrestlers. I knew that if I set goals and worked hard I could be just like them."

Her hard work paid off. She earned a position on the 2011

Canadian Junior National Team, and represented her country for the first time. She went on to win back-to-back junior national titles.

"The feeling after winning is something so special, it's almost unexplainable," she says. "Setting goals and meeting them really helped grow my love for the sport. I really got to see the potential I had in wrestling."

Despite the pressures of extensive travel, she managed to meet deadlines for her many English essays and other courses, often sacrificing sleep.

"I was able to make good use of time while I was on the road," she says. "My two priorities in life are athletics and academics."

"I really do enjoy English and I have a passion to provide others with the same memorable intellectual experience I was fortunate to have."

She plans to enrol in SFU's fall 2016 Professional Development Program, with a goal of becoming a high school English teacher.



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