

Indigenous STEM pilot program at Gloucester High School well received by students

Ottawa, December 22, 2016/ Today, Actua, its network member Engineering Outreach at the University of Ottawa, and the Ottawa Carleton District School Board celebrated the successful completion of their pilot science, technology, engineering and mathematics (STEM) educational initiative for local Indigenous high school students.

As part of Actua's national Indigenous Youth in STEM program (InSTEM), the Engineering Design and Social Change program was piloted in November and December at Gloucester High School and included students from Rideau High School.

The project enabled Indigenous students to experience STEM through the lens of both Indigenous cultural knowledge, and western science, technology, engineering and mathematics. The goal of the project is to create learning environments where Indigenous students see themselves being successful within the STEM fields of study, also providing cross-cultural learning experiences for participating non-Indigenous students.

Through hands-on experiences, students engaged in learning new technologies like 3D printing and laser cutting and then went on to create products aimed at addressing social and community issues.

"Through the InSTEM program, we have a unique opportunity to connect and build lasting relationships with Indigenous youth throughout their high school journey. Ensuring Indigenous youth see themselves represented within the program, and by demonstrating connections and cultural relevance of the program content, Indigenous students are more likely to see their own potential for higher learning," said Doug Dokis, Senior Advisor for Actua's InSTEM program.

Designed to have a regular and ongoing presence in the participating high schools, the InSTEM Engineering Design and Social Change program can be adapted to meet the needs and knowledge of local Indigenous communities and STEM learning objectives of individual schools.

The program also provides a unique opportunity for Elders and knowledge keepers to share their knowledge and worldviews in order to demonstrate the synergies between Indigenous and Western perspectives of engineering and science.

Building off the success of this first pilot initiative, the program is already laying the groundwork for continued delivery at Gloucester High School and beyond to other interested schools in 2017.

Quotes from program partners:

"To see the engagement in the youth partaking in the project is incredible. It makes us so happy to see the Rideau and GHS students engaged, thinking critically, and collaborating to solve a real world problem. That the framework of the program is contextualized within an Indigenous perspective truly gives the project relevance, as well as historical and cultural meaning. The Elders have been absolutely amazing and the students hang on their every word. It is fascinating, authentic and such an honour for us to participate." - Jennifer Perry, Principal, Gloucester High School

“I strongly believe that this new InSTEM program will be beneficial to all participants, by connecting our student instructors from our Engineering Outreach team to Indigenous youth hopefully feeding their curiosity for STEM and inspiring them to pursue post-secondary education. Our students will also greatly benefit from this initiative from exchanging with Indigenous youth, Elders and knowledge keepers.” - Ioan Nistor, Dean of the Faculty of Engineering at the University of Ottawa

“Working with the students has been wonderful. It has been great working alongside and learning from the Elders; the students are also captivated by the teachings and apply their new knowledge to our project. Their enthusiasm is contagious and will lead to a successful completion of this program.” - Justine Boudreau, Instructor, Engineering Outreach at the University of Ottawa

About Actua: Actua is Canada’s leading science, technology, engineering and mathematics (STEM) youth outreach network representing 35 university and college based members. Over 3 million young Canadians have been inspired through their participation in Actua’s hands on educational workshops, camps and community outreach initiatives. Each year, Actua’s growing network of member organizations reach over 250,000 young Canadians in over 500 communities nationwide. At the national level Actua focuses on the engagement of underrepresented audiences through specialized programs for Indigenous youth, girls and young women, at-risk youth and youth living in Northern and remote communities. Actua’s major funders include: Google Canada, Suncor Energy Foundation, GE Canada and the Natural Sciences and Engineering Research Council of Canada. For more information about Actua, visit actua.ca

About The University of Ottawa— A crossroads of cultures and ideas: The University of Ottawa is home to over 50,000 students, faculty and staff, who live, work and study in both French and English. Our campus is a crossroads of cultures and ideas, where bold minds come together to inspire game-changing ideas. We are one of Canada’s top 10 research universities—our professors and researchers explore new approaches to today’s challenges. One of a handful of Canadian universities ranked among the top 200 in the world, we attract exceptional thinkers and welcome diverse perspectives from across the globe.

The Ottawa-Carleton District School Board (OCDSB): The Ottawa-Carleton District School Board (OCDSB) is the largest school board in Eastern Ontario serving students within a 2,760 square kilometre area known as the city of Ottawa. We are the seventh largest board by school population in the province of Ontario. Our students are based out of 150 schools - 119 elementary including two special education sites, 26 secondary including the Adult High School, and 5 secondary alternate sites. We offer [education for all, education for life](#) at the OCDSB!

- 30 -

Contact Information:

Kristina Martin, Senior Manager of Communications, Actua
15 York Street, Ottawa ON K1N 5S7
Tel: (613) 234 4137 Fax: 613 234 4779
Email: kristina.martin@actua.ca
Web: www.actua.ca