# EDUCATION SUPPORT AND INNOVATION

# ANNUAL REPORT 2019

# Message from Associate Vice-President, Education Support and Innovation

The year 2019 was significant for BCIT, with the launch of the 2019–2022 Strategic Plan, the Education Plan, and the Indigenous Vision. This is an exciting time for the institute as we push forward with many new initiatives to enhance support for faculty and staff and ensure an exceptional learning experience for our students.

I am pleased to present this annual report from our Education Support and Innovation division. This report highlights the activities and successes of the Library, the Learning and Teaching Centre, and High School Partnerships over the course of the last year. These teams all play an instrumental role in supporting the learning experience at BCIT, and I am immensely proud of their accomplishments.

Our work in open education has accelerated the creation and adoption of openly licensed resources and reduced textbook costs for students. Learning and Teaching Innovation funding and Open Education grants have launched many faculty initiatives that continue to advance BCIT's Learning and Teaching Framework. In June, our third annual Learning and Teaching Summit was the most successful to date, with an estimated 28% increase in attendance from 2018 and overwhelmingly positive feedback.

There are many more stories to share, and I hope you enjoy this snapshot of our activities over the course of the past year.

**James Rout**

# Message from Director, Library Services

The past year was one of transition for the library. James Rout no longer serves as both AVP ESI and Library Director. As the new Library Director, I appreciate the tremendous staff support I received while immersing myself in learning about BCIT, ESI, the library, our students, and our faculty.

The library staff successfully completed a core objective: the creation of the library Services Strategic Plan 2019–2021. The library's strategic plan focuses our priorities in three key areas: learning and teaching innovation, people and service, and space and infrastructure. These strategic priorities align with BCIT's Strategic Plan 2019–2022.

This is an exciting time to work in libraries. Our services, access to content, and knowledge creation are developing and changing within the digital world. Our growing collection of online information resources provides access to quality research and a knowledge base that supports BCIT's programs. Our information literacy program helps students develop digital literacy skills. The staff expertise and technology available in MediaWorks encourage and facilitate integrative learning. The library provides and hosts multiple programs throughout the year, from student Exam Jams to faculty-focused Food-for-Thought sessions. Our Learning Commons hires and trains BCIT students to work as peer tutors, who contribute significantly to student success and retention.

The BCIT library enables our students and faculty to navigate and use the content and technological tools that form the 21st-century information and knowledge ecosystem.

**Alison Nussbaumer**

# Message from Director, Learning and Teaching Centre

Welcome to our inaugural ESI Annual Report! As an outcome of our recent strategic planning efforts, our team wanted to provide a way to showcase and celebrate all our hard work for the past year within BCIT's Learning and Teaching Centre [LTC]. This report is a culmination of an innovative and dedicated team of learning professionals that work every day to provide service and support to our faculty and students at BCIT.

This annual report is a window into the past year that shows what we've accomplished, the many projects we undertook, our support for students both online and in the classroom, our support of teaching excellence, and our exploration of new and emerging education technology. Many changes are happening in higher education, and the LTC remains at the forefront of leading the charge to help students learn more effectively and gain new skills that align to their career of choice after they leave BCIT.

I welcome your comments and feedback on this annual report and encourage you to contact me directly at bhosier@bcit.ca.

**Brian Hosier**

# BCIT Library

Librarians have been instrumental in initiatives to ensure that the BCIT Library stays relevant, appealing both to digital natives and those who are less comfortable with technology and the digital environment.

Because all transportation trades have expressed interest in expanding their offerings to support more innovative instruction such as VR/AR, the library now has dedicated rooms both at Marine and Aerospace campuses for the Vive VR system, Oculus Go, and HoloLens. Moving forward, the challenge will be to identify and acquire programs with appropriate subject matter that support teaching and learning.

## ▶ Library Events and Services

### BURNABY FESTIVAL OF LEARNING

The Library coordinated BCIT's participation in the Burnaby Festival of Learning (BFOL) in May. As part of the activities, we held a Tech Expo in MediaWorks, highlighting VR/AR technology, robot simulators, and drones. BFOL included a high school half-day in which 40 students took part in a campus tour and hands-on experiences in different departments, including Media Works. AVP James Rout spoke on the impact of automation at one of the events.

### MARINE CAMPUS OPEN HOUSE

On October 18, the Library participated in the Marine Campus Open House. Librarians from both campuses encouraged visitors to stop by the library, where we offered nautically themed button-making, an escape room, and the latest in AR/VR learning experiences. We welcomed almost 500 visitors, including high school students and their parents, working professionals, and even retired mariners.

## EXAM JAMS

The Student Association, Student Life Office, Learning Commons, and Library held Exam Jams in May and November. Exam Jams provide stress relief and study skills support for students. Featured events included time management and exam preparation workshops, drop-in painting, doggy de-stress, and tap-dancing workshops.

## SCIENCE LITERACY WEEK

Our weeklong September celebration, Science Literacy Week, featured the well-attended talk "Where Does Your Recycling Go?", a tour of the OASIS grid, technology demonstrations outside MediaWorks, and the premiere of our second escape room.

## SCAVENGER HUNT

At start of term in September, over 200 School of Business students came to the library to get stamps for their passports.

## ANY BOOK BOOK CLUB

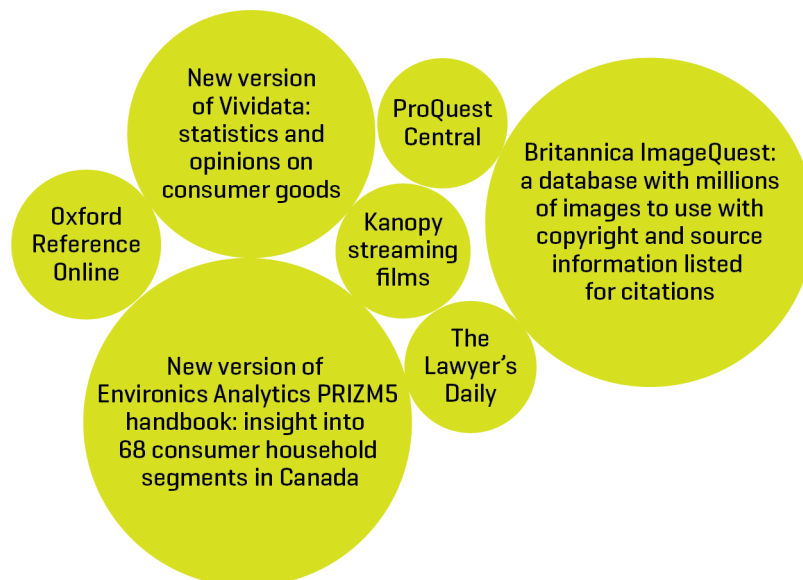The Any Book Book Club meets monthly in the library for an informal discussion of books.

## SEED LIBRARY

Our seed library, which provides seeds and gardening-related resources for loan, had a successful second year and is looking at ways to scale the project beyond the library.

## STORYTIME

BCIT Library continues to host children from the Student Association Daycare for storytime twice a month.

## NEW LIBRARY RESOURCES

New version of Vividata: statistics and opinions on consumer goods

ProQuest Central

Britannica ImageQuest: a database with millions of images to use with copyright and source information listed for citations

Oxford Reference Online

Kanopy streaming films

New version of Environics Analytics PRIZM5 handbook: insight into 68 consumer household segments in Canada

The Lawyer's Daily
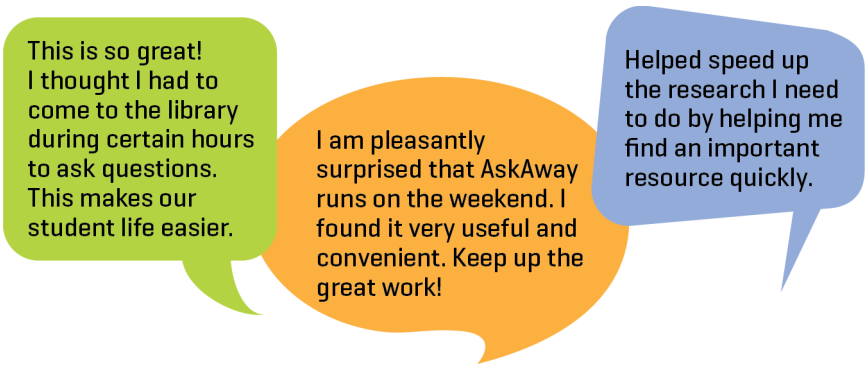
## INDIGENOUS COLLECTION

The Library partnered with Indigenous Services to build an Indigenous collection for campus, hosted in the library. We added a streaming video collection via MacIntyre Films, a Bibliography of Native North Americans database, and a number of print and ebooks.

## BCIT INSTITUTIONAL RESEARCH REPOSITORY

The Institutional Research Repository captures the applied research output and student work of BCIT and shares it with the world from **circuit.bcit.ca/repository**. This year, the repository added 19 new Master of Science in Ecological Restoration theses.

## BCIT CHAT WITH A LIBRARIAN

In September, the library extended the hours for Chat with a Librarian and enhanced student access to this service by adding a link in the Learning Hub. We also have an iPad kiosk at the reference desk for after hours.

This is so great! I thought I had to come to the library during certain hours to ask questions. This makes our student life easier.

I am pleasantly surprised that AskAway runs on the weekend. I found it very useful and convenient. Keep up the great work!

Helped speed up the research I need to do by helping me find an important resource quickly.

## SUMMIT CENTRE

In May 2019, BCIT and the BCIT Student Association launched the Summit Centre, a new hub for entrepreneurship. Situated in the library, the Summit Centre offers services and resources for students to develop the skills they need to start their own business ventures. The hub includes two offices, two project rooms, a large classroom, a library lounge area, and the use of MediaWorks resources and services.



## LEARNING COMMONS 2019

New in the Learning Commons is the delivery of one-to-one peer tutoring to complement our mainstay drop-in tutoring.

# SOME LEARNING COMMONS DATA (MAY 2018–MAY 2019)

## *Peer tutoring*

1,209 unique students
4,652 visits to peer tutoring

● 12%
one-to-one

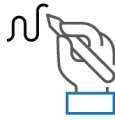● 78%
drop-in

● 19%
international
students

● 40%
respondents agreed
or strongly agreed that
peer tutoring helped
them pass a course
they were at risk of failing

## *Writing Centre*

221
unique
students

438
visits to the
Writing Centre

● 42%
of visits were
made by
international
students

121
eWriting files
submitted to
WriteAway

## BCIT ARCHIVES

BCIT Archives achieved a significant milestone: of the approximately 300,000 photographs in our collections, more than 7,000 are now digitized and available on the database. That's 2% of the archives' total photographic holdings—a common benchmark goal that is not often realized. Thanks to a joint project with MediaWorks, soon the majority of the archives' video collections will be available in the database.

## Archives statistics

| | | | |
|---|---|---|---|
| **7000** | **1800** | **209 GB** | **≈ 80** |
| images on the database | full-text searchable PDFs | of websites | videos |

In 2019, BCIT Archives started a long-term digital preservation program, using the open-source software Archivematica. BCIT Archives has also been active on social media, engaging the BCIT community with our past each week and writing blog posts twice a year. The series Short History of BCIT Through Street Names was popular. Check out the Loop to see attendees of the 2019 Pioneer Lunch inserted into photos from the archive collection.
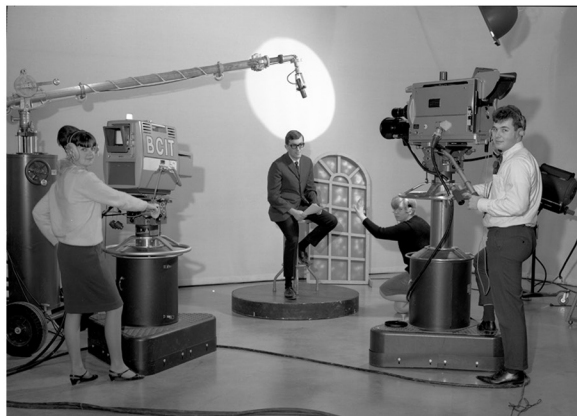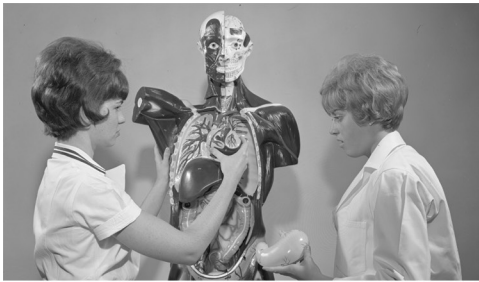
# MEDIAWORKS

MediaWorks' 2018 move to a new space has benefited the students. The new venue, three times larger than the old one, has allowed MediaWorks to offer more services, which now include:

- collaborative space
- a dedicated project room
- a dedicated games room
- extended service hours
- a new staff member
- ten practicum students to work on a video clip on promotional materials, job aids, and how-to manuals



## *Tours and Visitors*

Thanks to their overwhelming success in supporting students and faculty, MediaWorks has become a showpiece for tours of distinguished people visiting BCIT, including ministers from provincial and federal governments, accreditation teams, and guests from the BCIT Alumni Association and the development office. In 2019, visitors to MediaWorks included Jagmeet Singh, MP; Melanie Mark, MLA; international dignitaries; and visitors from other libraries. MediaWorks also hosted prospective students and high school groups.

### *New Technology at MediaWorks*

This year, MediaWorks added a new tool to its inventory of cool items: a Glowforge laser cutter for cutting, engraving and scoring materials such as acrylic, wood, glass and leather.



## CIRCULATION—SERVICE DESK

**15,000 +**
student cards
handed out

**201**
research
classes

**6,816**
students
participating
in research
classes

**20**
new carrels

**2,240**
expired records
management
boxes removed
and destroyed
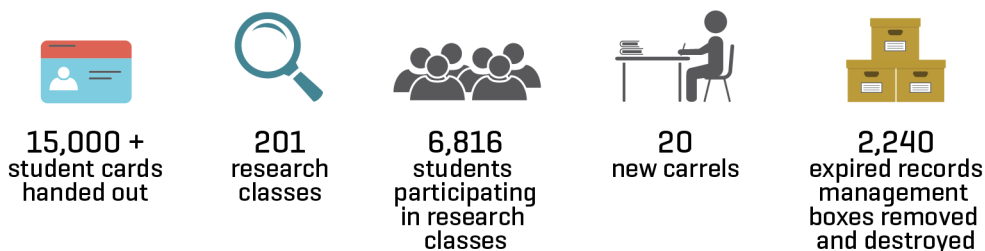
# ▶ Library and LTC Collaborations

## OPEN EDUCATION RESOURCES

The Library and LTC have been tremendously supportive of OER at BCIT over the past year. Staff jointly helped BCIT win an Open Education Institute Sustainability Grant from BCcampus, which will allow us to

- support a BCIT Open Education Faculty Champion/Fellow in 2020
- establish an open publishing program to help faculty convert their digital learning materials to open formats
- convert a popular learning module, Tools for the Trades, from Adobe Flash to a sustainable format
- continue the successful Open Education Grants Program, which provides funding to create open education learning resources or redesign classes to incorporate open education learning materials and open pedagogy

## OPEN ACCESS WEEK

BCIT, Langara College, Kwantlen Polytechnic University, SFU, and UBC celebrated Open Access Week by jointly hosting an exciting half-day event. Jessie Loyer, the keynote speaker, explored the Open Access Week theme, "Open for Whom? Equity in Open Knowledge," through the lens of decolonization.

## FOOD FOR THOUGHT

Library and LTC staff collaborated in hosting casual lunchtime opportunities for sharing ideas about teaching and learning. The twice-monthly drop-in events included

- Integrating Open Pedagogy into Teaching Practice
- "But I'm not Good with Computers": A Millwright's Journey from Two-Finger Typing to C# Coding
- BCIT Open Education Grants Showcase
- Motivating Young Women and Girls to Enrol and Persist in Computer Science and Technology Education

## BSN CONCEPT DEFINITIONS

Working with faculty from School of Health, Bachelor of Science Nursing, and the LTC, the Library provided a solution to deliver digital access to a collection of concept definitions to all nursing students via one URL. Since September 2019, over 1,000 BSN students have relied on this digital collection for their coursework.

> **"**
>
> Re: concept definitions to repository: Thanks for the information about students accessing the concepts. This is great news! Exactly what we want! We are lucky to have people like you supporting us.
> *Selma Kerr-Wilson, Faculty, SoHS—Nursing*
>
> **"**

## OTHER INITIATIVES

### Digital Citizenship Course

A team of two librarians and an IDC received an Instructional Enhancement Grant to develop Digital Citizenship, a self-directed online course about using online information technology safely and responsibly. Modules address plagiarism; cybersecurity; legal, ethical and social issues; and other topics. Instructors will be able to link it to their courses on the Learning Hub. Digital Citizenship is available to anyone in the BCIT community.

### 360° VR Library Tour

Library staff collaborated with LTC Media Production to film a 360° tour of the library that students can access on their devices and desktops. A future goal is to install an interactive touch-screen kiosk equipped with 3D goggles.

### Functional Spaces Plan

The Library, LTC, Facilities, and consultant Resource Planning Group have worked together to create a Library/LTC functional spaces plan.

### ESI newsletter

Every week, Education Technology Support posts a newsletter on the Loop called ESI—All You Need to Know, a Library/LTC collaboration.

# Learning and Teaching Centre

## COURSE DEVELOPMENT AND RENEWAL

In 2019, Instructional Development Consultants (IDCs) continued to collaborate with schools and programs to redesign existing courses and create new BCIT offerings. A few examples:

- the new Full-Stack Web Development Diploma (FSWD), an interdisciplinary collaboration with the School of Computing and Academic Studies and the School of Business
- Canada's first full-time, two-year diploma program in industrial network cybersecurity
- the successful redesign of BC Parks Law and Administration Course, transforming it from a pencil-and-paper distance education course with mail-in assignments to an online course with animated graphics, discussions, videos from BC Park Rangers, whiteboard animation, and interactive activities
- a Bachelor of Science in Nursing/LTC collaboration (IDCs, Course Production, ETS, Video and Digital Media Production, editors, graphic designers, instructor survey team) supporting the launch of five terms of a brand-new curriculum. So far, 29 of 33 courses have been rewritten.

## PROGRAM REVIEWS

In 2019, IDCs collaborated with the School of Health Sciences to merge four programs—Medical Radiography, Diagnostic Sonography, Magnetic Resonance Imaging, and Nuclear Medicine—into one. That merger led to the launch of the first cross-disciplinary program in Western Canada, allowing students to earn a Diploma in Imaging Technology, with the option of laddering into a higher degree in health sciences and onward to a master's or doctorate.

## SUPPORT FOR PROFESSIONAL DEVELOPMENT IN BCIT'S SCHOOLS

IDCs have continued to support professional development for BCIT schools and instructors. Some examples from the past year include
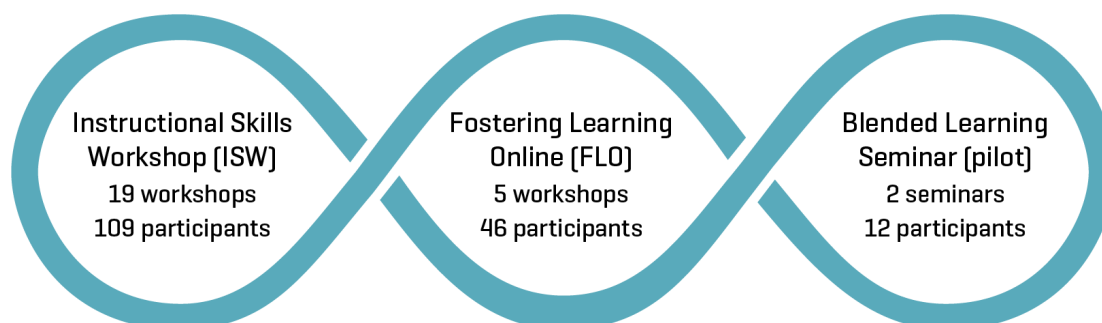
- School of Transportation's 2019 Professional Development Day: A team of IDCs supported the department by helping to plan the event and facilitate workshops.
- Civil Engineering retreat: IDCs led an all-day curriculum direction exercise.
- Bachelor of Technology in Environmental Engineering launch: An IDC presented on assessment during a retreat for the program launch.

## FUNDING RESEARCH TO FOSTER EFFECTIVE INSTRUCTION

Professional development grants are a key component of ongoing professional development at BCIT. IDC staff and LTC management sit on the Instructional Development Committee along with representatives from BCIT management and faculty. This year, the committee facilitated the application process for more than 30 successful grants.

## LTC WORKSHOPS

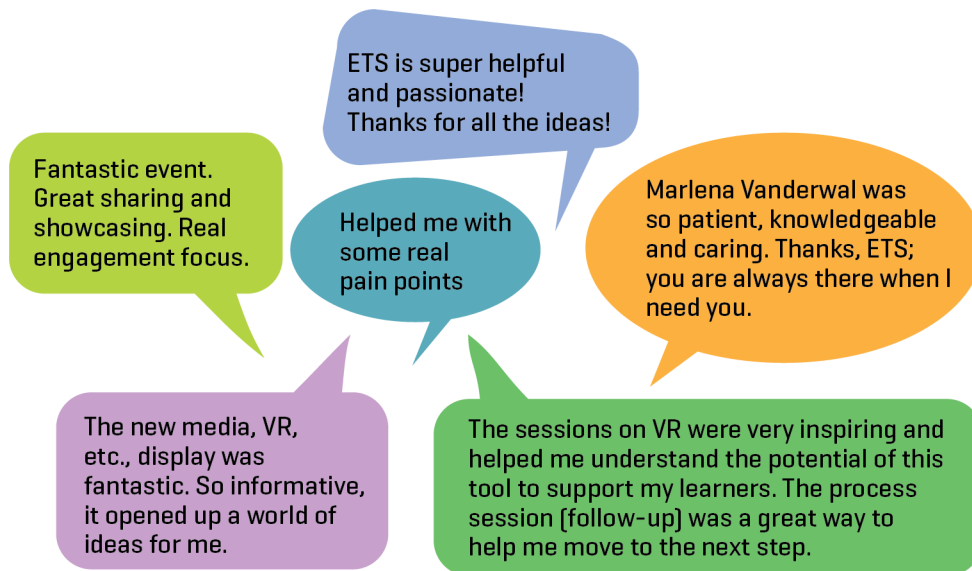IDCs ran a successful series of workshops for BCIT instructors in 2019.

Instructional Skills Workshop (ISW)
19 workshops
109 participants

Fostering Learning Online (FLO)
5 workshops
46 participants

Blended Learning Seminar (pilot)
2 seminars
12 participants

# THE LEARNING AND TEACHING SUMMIT

Approximately 287 faculty and staff took part in the 2019 Learning and Teaching Summit, organized by LTC staff. The theme of the summit, Bridging the Gap, aligned with BCIT's Learning and Teaching Framework. Dr. Rajiv Jhangiani, Associate Vice-Provost, Open Education, at Kwantlen Polytechnic University, delivered the keynote address "Breaking Barriers and Building Bridges: Towards a Pedagogy of Care."

ETS is super helpful and passionate! Thanks for all the ideas!

Fantastic event. Great sharing and showcasing. Real engagement focus.

Helped me with some real pain points

Marlena Vanderwal was so patient, knowledgeable and caring. Thanks, ETS; you are always there when I need you.

The new media, VR, etc., display was fantastic. So informative, it opened up a world of ideas for me.

The sessions on VR were very inspiring and helped me understand the potential of this tool to support my learners. The process session (follow-up) was a great way to help me move to the next step.

# TECHNOLOGY FOR LEARNING

The LTC is breaking new ground in harnessing new technology to facilitate student success. A team from the PRISM Simulation Centre is exploring the efficacy of VR in learning and teaching and creating a Virtual Reality/Augmented Reality Teaching and Learning Framework for instructors who would like to use AR/VR in the classroom.

LTC staff champion the use of education technology. For example, H5P, a free and open-source content collaboration framework, allows instructors to create, share, and reuse interactive content such as videos, presentations, quizzes, timelines, and more without having to know how to write code.

### *Virtual Simulation*

In 2019, the virtual simulation team, Course Development, and faculty collaborated on simulation projects such as a 3D web application on brain anatomy for the School of Health. The team is also working to transform its Hyundai Engine 3D web application into VR/AR.

### *Railway Simulation*

Imagine that you are on the scene of train derailment. An injured worker is on the ground. Do you try to rescue that person? If you do, toxic chlorine gas will kill you. The VR Railway Simulation Project allows students to experience being a first responder at a life-size train derailment and gives users a sense of the size and scope of the railcars. Students can navigate within the scene to stand on the cars and examine features such as couplings.



> **"**
> We have the flexibility and opportunity to explore the new technologies that are a part of contemporary software development. We have developed automation tools to give us time to do that.
>
> *Selma Kerr-Wilson, Faculty, SoHS—Nursing*
> **"**

> **"**
> Web applications intertwine in all aspects of our daily life. They enrich student learning and empower faculty in delivering course curriculum. Web apps are prevalent, accessible, and essential.
>
> We are not afraid of failure. We learn from our failure. We are always researching and innovating.
>
> *Jason Chien, Virtual Simulation Project Coordinator*
> **"**

The project began with simulation asset artist Darrell Croswell taking high-resolution photographs of railcars. He then created a realistic scenario using Unity, the same software used to create blockbuster computer games. The School of Transportation piloted the project with the goal of fully integrating it into the school's curriculum. The project shows promise for making education available to students in remote areas.



### Be the Beam

Medical radiography students are biology students learning the physics of X-ray technology. With 40% of the students unsuccessful in the midterm exam, instructor Francine Anselmo turned to Learning Technology Specialist Dan Block and the LTC's virtual simulation team for advice. The solution they created? Be the Beam, a VR learning tool that "shrinks" students so that they can enter the machine and watch, in slow motion, the path of an X-ray from inside the X-ray tube, while narration describes the process. At the same time, students can follow the physics and mathematical calculations involved in the process on a whiteboard. Then, the X-ray beam contacts the patient and the receiver, generating an X-ray image by transferring the ray to a digital signal. Students can look at the X-ray generated. The 12-minute scenario is short enough to allow each student to use Be the Beam during a single session of the class.

> " Feedback surveys for Be the Beam are overwhelmingly positive. One student was struggling all semester; after five minutes she took off the headset and said, I get it!
>
> *Dan Block, Learning Techonolgy Specialist* "

### *Image Viewer Web Application*

The course production and virtual simulation teams collaborated to create Corgi, a state-of-the-art image viewer for the School of Health's Medical Laboratory Science program. The image viewer is a sharing repository of images that are useful across schools and programs. The Medical Radiography program is now piloting the image viewer into its course curriculum.

The image viewer allows users to incorporate high-resolution pictures—up to 26 billion pixels!—into curricula. This user-friendly application, accessible across devices such as mobile phone, tablet, laptop, and desktop computer, allows instructors to easily upload high-resolution images up to a microscopic level, eliminating the need for users to have access to a microscope.

## A NEW APPROACH TO CLINICAL EVALUATION IN THE SPECIALTY NURSING PROGRAM

The Specialty Nursing Program is piloting a new way of evaluating learners' mastery of clinical reasoning and clinical judgment. Rather than having instructors evaluate students, learners demonstrate that they have reached their learning outcomes. IDCs are collaborating with the School of Health to develop guiding principles, behaviour statements, and evaluation criteria.

The next phase of the project is to use simulation strategies to connect theory and clinical practice. In simulation strategies, students use manikins and simulation labs to play out scenarios that call for clinical decision-making and reasoning.
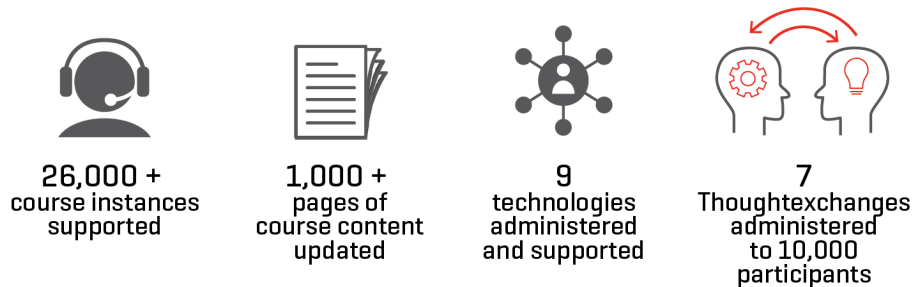
## COURSE PRODUCTION SERVICES

The course production team keeps BCIT courses fresh and relevant by adding new elements for instructors to incorporate, including a new matching question format this year. They also developed a new web-based tool to automate question creation. The tool enables instructors to import questions from Word to update quizzes more easily. The team collaborated with the virtual simulation team to redevelop the Corgi image viewer application for School of Health programs.

In 2019, Course Production produced more than 366 modules for 47 courses and retrofit 11 courses. The team has markedly improved efficiency, decreasing the time to produce a course from 11 weeks to 4 weeks and increasing output from 17–20 courses a year to 40–50 courses a year. Now, module development, which used to take 7.5 hours, takes just 1.5 hours!
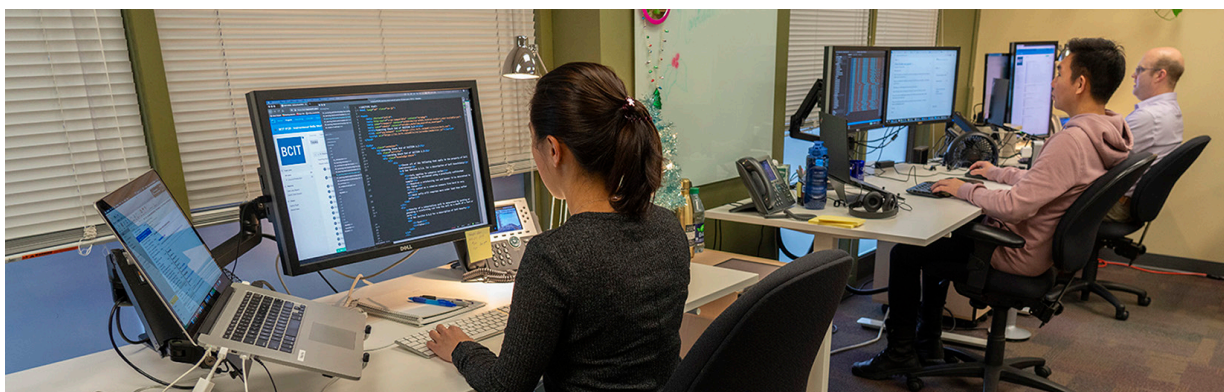
# EDUCATION TECHNOLOGY SERVICES (ETS)

ETS buzzwords are "relationships" and "user empowerment"—making faculty feel comfortable asking for help and coaching them to master the complex Learning Hub tools that create a positive learning experience for students. This year, ETS trained more than 400 faculty and logged at least 30,000 helpdesk incidents. Other noteworthy numbers:

| **26,000 +** | **1,000 +** | **9** | **7** |
|---|---|---|---|
| course instances supported | pages of course content updated | technologies administered and supported | Thoughtexchanges administered to 10,000 participants |

ETS staff also sponsor or promote other new technologies, and are front and centre in the latest VR/AR initiatives. Other new technologies they've championed in 2019 include

- Thoughtexchange: an online platform that gathers people virtually to share ideas on a certain topic
- Employee Learning Hub: an initiative by Human Resources and ETS to provide courses and other resources to BCIT employees
- new eportfolio tool: a replacement for the overly complex tool originally implemented
- video assignment tool: a new feature that lets students submit videos through the system

# AUDIO VISUAL SERVICES

Each year, when instructors and students head out for the summer, LTC's audio visual crew set to work checking all classrooms to ensure that they're in working order for the September term. This year, the check covered 650 classrooms, including more than 55 new installations or upgrades. New installs were significant this year, marking a new focus on doing the work with in-house AV staff rather than contracting out to external companies. The department took greater control over the process so that internal staff could more efficiently maintain equipment and troubleshoot problems. AV also made process and technology updates during the year to improve support response times and continue the exceptional service they're known for.

While keeping classrooms in working order, AV staff also supported the audio visual needs for all the events on campus—regular events such as meetings and president's forums, and special events such as convocation, Presentation Idol, the Learning & Teaching Summit, and the United Nations He for She visit.

**1400+**
scheduled tech
assists and
event supports

**5000+**
completed
checkouts
at the AV
circulation desk

**55+**
new installations
and upgrades
completed

## VIDEO AND DIGITAL MEDIA PRODUCTION

The Video and Digital Media group continues to support BCIT schools with multimedia for educational and informational purposes. In 2019, the three-member team produced well over 75 major video and VR projects, while slotting in innumerable smaller tasks on an impromptu basis.

As well, schools have been mining the team's VR skills for creating virtual environments using high resolution 360VR and LiDAR camera systems. This year, example scenarios included an emergency room for a simulation response exercise and shoreline environments for inspections by the School of Construction and the Environment. They also used 360VR technology to create virtual tours of CARI and the library to post on the website.

The team has also been in the forefront of merging RPAS (drone) technology with VR technology. For example, they used drones to map the environment for the Guichon Creek daylighting project and to map campus buildings for the School of Construction. The video and digital media crew continues in its official role as the BCIT RPAS (Drone) Emergency Response Team, which includes training directly with first responders during the yearly BCIT Disaster Day Exercises.
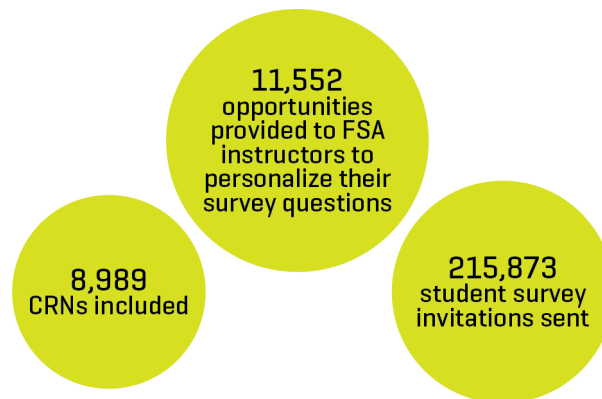
Finally, the group was on call for all livestreaming needs on campus, such as convocation, President's forums, and information marketing sessions for individual schools.

# INSTRUCTIONAL ASSESSMENT: EXPLORANCE BLUE UP AND RUNNING IN 2019

After 18 months of meticulous work, BCIT fully implemented a new online system, Explorance Blue, for gathering student feedback on courses and instruction. The highly secure, automated platform is flexible, easy to use, confidential, and more efficient than the older paper-based system. Implementing Explorance Blue was a huge collaborative effort involving research and analysis, best practices, consultation among multiple stakeholders, and a phased rollout. The new system reduced the number of paper surveys by 88% from 2018 to 2019.

Noteworthy stats for 2019 instructional assessments online:

**11,552** opportunities provided to FSA instructors to personalize their survey questions

**8,989** CRNs included

**215,873** student survey invitations sent

# EXAM MARKING SERVICES

Throughout the year, the exam group provided instructors with the invaluable service of marking multiple-choice exam sheets, ensuring one-day turnaround during exam week.

# DESIGN AND ILLUSTRATION

LTC's graphic designers keep the look and feel of BCIT materials current. Their 2019 projects included

- collaborations with the virtual simulation team to develop the interface, icons, and the logo for the Virtual Pulse simulation program that portrays people with various ailments
- graphics for the Virtual Reality Lab and signage, schedule, and graphics for the Learning and Teaching Summit
- participation in the Learning and Teaching Summit as graphic facilitators
- graphics and scenes for use in courses, including the park ranger online course and the Green Shores shoreline restoration program
- trades training materials: huge documents involving thousands of pages and hundreds of graphics
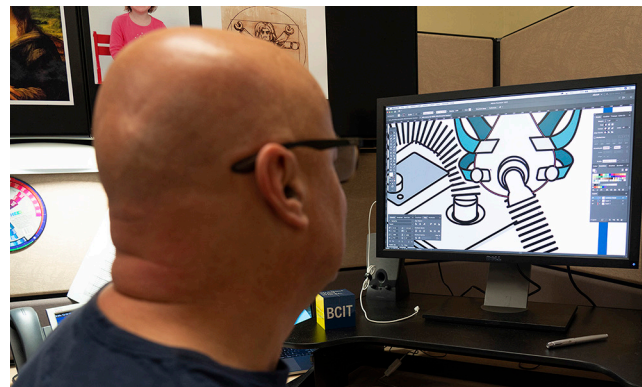
## DOCUMENT SPECIALISTS

In 2019, the LTC reinstated Document Services, with the hiring of a part-time document specialist to meet the needs of the department. A full-time document specialist works on external projects.

## EDITING AND WRITING SERVICES

In 2019, Instructional Material Developers continued working behind the scenes on a variety of projects, including program reviews, dozens of online courses, marketing and promotional material, and this annual report.

## ADMINISTRATON AND FINANCE

Often the public face of the LTC, the admin team also works hard behind the scenes, ensuring that workshops get run, staff get paid, and the office runs smoothly. In addition to strategic management of LTC financial operations, Finance assisted with four approved business cases, making a special effort to help initiate the Flash redevelopment project now in the works.



## EXTERNAL PROJECTS

The work of LTC staff benefits instructors and students, not just at BCIT but across the province and the country. For example, the Harmonization Curriculum Development Project has been supporting trades training since 2016.

The harmonization project creates performance assessments for the Red Seal Trades, a program that sets common standards to assess the skills of tradespeople across Canada. Funded by BC Ministry of Advanced Skills and Training, the $2.3 million project generates $80K–$100K income annually for the LTC. The project sponsor is the Harmonization Management Committee, comprising members of the ministry, ITA, Trades Training BC, and the BC Association of Trades Training Administrators.

The harmonization project involves five phases. In 2019, LTC staff collaborated with over 90 instructors from all 15 of BC's post-secondary trades training institutions to complete Phase 3 (piping trades: plumber, steam fitter, sprinkler installer, landscape horticulturist, sheet metal worker, and boiler maker) and started Phase 4 (refrigeration/air conditioning mechanic and machinist). The performance assessments are available across the province via an online learning repository.

Another external project, the Trades Student Material project, began in 2018. With the completion of Levels 1 and 2 learning guides for electrical apprenticeship, in 2019, the team completed student learning guides for piping and are working on Level 3 Electrical and Level 2 Piping. Each level is 1,200–2,000 pages. The project deliverables are 18–20 books for students to purchase. The LTC team working on the project included an IDC, a document specialist, a graphic designer, and an IMD.

## LTC WORK WITH UNEXPECTED AND FAR-REACHING RESULTS

Jennifer Madigan is VR IDC specialist at the LTC who works with instructors to incorporate VR into the curriculum.

One day, Jennifer took the VIVE VR headset home to explore VR and had a thought to try it with her mom, who has dementia. The results were surprising. When Jennifer's mother, who is largely nonverbal, experienced VR through the headset, she spoke more. Jennifer approached the BC Alzheimer's Society with the story of her mother and the VR headset. As a result, the Alzheimer's Society applied for and received funding to research the application of VR as a tool that can assist in generating conversation for the patient and to help caregivers experience what it might feel like to live with dementia.

# High School Partnerships and Initiatives

BCIT has been actively involved with high school partnerships for 20 years and currently has approximately 800 students in programs and initiatives with school districts throughout the province. All of BCIT's dual-credit and transitioning programs involve career exploration and personalized learning opportunities within an applied hands-on educational model. Our partnership programs align with the K–12 curriculum redesign, high-demand occupations determined by WorkBC, and high-demand trades identified by the Industry Training Authority. BCIT is currently involved in over 25 initiatives with school districts across the province.

**Technology Education and Literacy in Schools (TEALS)** is a US-based program, supported by Microsoft Philanthropies, that partners computer science professionals with teachers to team-teach computer science in high schools. Five hundred high schools in the US participate in TEALS. In September 2018, four BC high schools rolled out the first Canadian TEALS programs, and eight more schools came on board in the fall of 2019. As the exclusive Canadian educational partner of TEALS, BCIT has worked on the privacy impact assessment, updated the TEALS curriculum, and is currently adapting online computer courses specifically designed for TEALS teachers both in Canada and the United States, with a projected three-year roll-out plan.

477 students

37% female   63% male
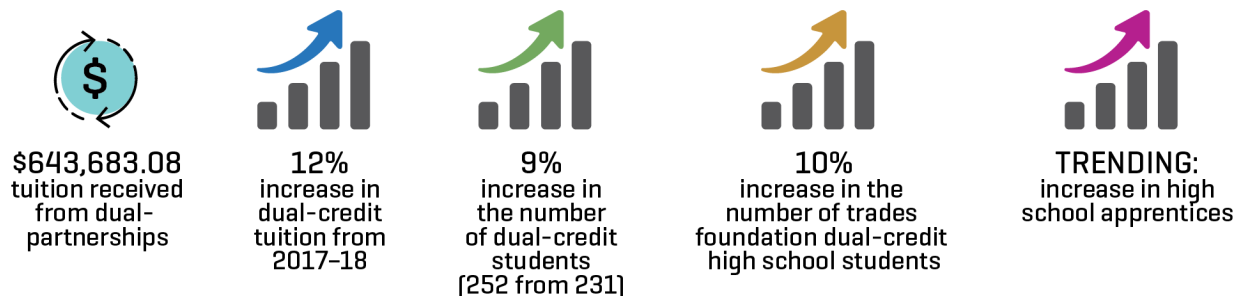
60% increase in from 2017–18
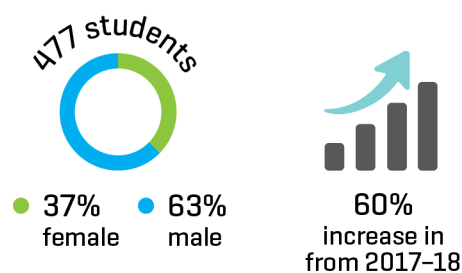
In Fall 2019, BCIT hosted the annual Triple Bottom Line High Schools **Business Case Competition**, where high school students honed their business and leadership skills. Fifty high school students from five Burnaby secondary schools took part.

The **Pre-Health Program**, a collaboration with the Burnaby School District, targets Grade 12 students interested in a career in health sciences. The program includes a hands-on course at BCIT, problem-based learning projects, and patient case scenarios that allow students to follow a patient through symptoms, diagnosis, and treatment, while exploring the related healthcare professions. This year, we increased the class size to 18 due to high student demand.

BCIT has collaborated with the Vancouver and Burnaby School Districts to develop the **CISA Laddering Program**, which transitions students from high school into BCIT's two-year Computer Information Systems Administration (CISA) diploma program.

## DUAL-CREDIT PARTNERSHIPS: 2018–2019 SNAPSHOT

**$643,683.08** tuition received from dual-partnerships

**12%** increase in dual-credit tuition from 2017–18

**9%** increase in the number of dual-credit students (252 from 231)

**10%** increase in the number of trades foundation dual-credit high school students

**TRENDING:** increase in high school apprentices

# Awards/Employee Recognition

- AV Services team: 2019 Employee Excellence Award for Outstanding Contribution (Department)
- BCIT's Be the Beam team members Francine Anselmo, Dan Block, Travis Nicholson, Stevie Giovanni, Darrell Croswell, and Jason Chien: the 2019 Sim Innovator award by Simulation Canada for their exceptional commitment to innovation, advocacy, and advanced simulation for education, patient safety, and quality improvement
- IDC Rosario Passos: 2019 Employee Excellence Award for Outstanding Contribution— Department for her work on the School of Transportation PD Day Committee
- Librarians Lin Brander and Deirdre Grace: 2019 Employee Excellence Award in the Leadership category
- PD Day 2018 Committee (including Brian Hosier, Lynda Beveridge, and Bryan Fair): 2019 Employee Excellence Team Collaboration Award

# ESI's Impact Outside of BCIT

- Alison Griffin presented on the BCIT Seed Bank at the EcoCity conference hosted by BCIT.
- Ana Maria Ferrinho presented at the European Association for Health Information and Libraries workshop in Basel, Switzerland.
- Deirdre Grace and Linda Matsuba presented "Books, Blogs and Conferences" at BizInfo Day for the Business Librarians of BC.
- John Mills presented on how to use rubrics as way to remove subjectivity from assessment of media art to the Canadian Media Educators Annual Conference in Canmore, Alberta. John is Western Canadian director, Canadian Media Educators.
- Lauren Schutte presented a paper, "Structuring Support for Interprofessional Education at a Canadian School of Health Sciences—A Case Study," at the Global Education Teaching and Learning Conference in Sibenik, Croatia.
- Nancy Morello presented on privacy impact assessment at the Bluenotes Global 2019 Conference in Chicago.
- Rosario Passos presented on the status of OER in Canada at the 2019 Open Education Global Conference in Milan, Italy. Rosario sits on BCcampus Open Education Advisory Board.

## ▶ Other Conference Attendees

- Chris Cambon, National Association of Broadcasters show, Las Vegas
- Dan Block, 2019 SIM Expo, Montréal
- Lindsey Belloc, National Association of Broadcasters show, Las Vegas
- Lynda Beveridge, Conference of the Canadian Society for the Study of Education, Vancouver
- Oleg Lungu, Association for the Assessment of Learning in Higher Education, Saint Paul
- Vesna Cukic, Bluenotes Global 2019 conference, Chicago