BCIT

IS EVERYWHERE

BCIT IS

For more than 50 years, BCIT has been [illegible] economic, social and environmental prosper[illegible] Columbia. Over the next 50 years, we are forging BCIT that is bigger, better and broader. We are creating transformational learning experiences that take our students, faculty and programs beyond our borders. With a history of excellence in applied research and education, industry partnerships and economic impact, we want to take BCIT everywhere. Our journey starts here.

We establish infrastructure.
We unlock potential.
We build economies.

EVERYWHERE

AT BCIT, we are developing real-world solutions born from real-world challenges. Our expertise in applied learning and research and our partnerships with communities and industry create the perfect platform for training the next generation of thoughtful, creative problem-solvers and lifelong learners. Our students graduate with the skills and experience needed to help solve the critical challenges we face — at home and beyond.

Our people, programs and partnerships benefit communities, industries and the lives of individuals. We attract students, educators, researchers and partners who are committed to making a difference. We are here, and we want to take BCIT everywhere.

WE START HERE

AN ENVIRONMENT FOR INTERDISCIPLINARY TEACHING AND LEARNING

Across our five campuses, BCIT offers state-of-the-art customizable and modular learning spaces—including business technology hubs, digital arts studios and highly specialized health, aerospace and marine simulation units. We offer spaces for interdisciplinary interaction and innovation, places where new ideas lead to new friendships, and new friendships lead to new businesses.

Our campuses function as "living labs," where we challenge students to take on real-world problems and partner with government and industry to develop innovative solutions that we can share with the world. A future entrepreneurial centre is aimed at supporting business operations and commercialization strategies for aspiring entrepreneurs. Our newest addition, located at our Downtown Campus, is the Computer Information Technology Hub that will serve BCIT and the Vancouver information technology industry.

Our Campus Master Plan for all BCIT campuses is designed to improve space utilization and strengthen our financial foundation by maximizing revenue streams and bolstering fundraising opportunities. As part of this initiative, plans are underway for three new innovative centres on our Burnaby Campus:

- **Centre for Energy Innovation & Distribution;**
- **Trades & Technology Centre; and**
- **Health Sciences Centre for Advanced Simulation**

Our faculty's industry expertise and our innovative collaborations with industry, government and Indigenous communities are at the core of our students' success.

BCIT has campuses in downtown Vancouver, Burnaby, North Vancouver, Richmond and Annacis Island. Shown here is the BCIT Aerospace Technology Campus, located in Richmond, BC, adjacent to the Vancouver International Airport (YVR).

OUR LEARNING MODEL

CONNECTED TO THE SECTORS THAT DRIVE OUR WORLD

BCIT is Canada's innovative polytechnic—distinctly focused on applied learning and applied research. Our strengths lie in six clusters that drive our world: energy, motion, health, manufacturing, infrastructure and business and information technology.

We are creating capacity and opportunity for practitioners and professionals, Indigenous learners and international clients. Advanced programming and industry training are complemented by courses and applied research initiatives that align with BC and Canadian strategies. For example, our Military Skills Conversion program, started by BCIT School of Business faculty member Kevin Wainwright nearly ten years ago, received funding to go national in 2015. This program helps hundreds of current and former Canadian Armed Forces members transition into rewarding civilian careers.

We are committed to ensuring that our curriculum, training facilities and instructional methods meet the needs of students and the demands of industry—today and in the future. To that end, we continue to look beyond our walls, collaborating with our counterparts in British Columbia and beyond. We have joint program offerings with BC post-secondary institutions, as well as international partnerships in countries such as Brazil and China.

Our cohort model gives students access to experienced professionals in a team-based environment where they can make valuable industry contacts. This innovative instructional framework is unique to BCIT.

BCIT's Human Capital Initiative began as an applied research project that aimed to translate the skills learned in the Canadian military to post-secondary credits, accelerating students' transition to civilian careers. Now we provide advanced placement opportunities for a variety of mature student groups.

Indigenous learning

BCIT's Aboriginal Services acts as a "home away from home" for more than 1,400 BCIT Indigenous students. The department also provides support and mentorship from staff and Indigenous elders.

In 2014 BCIT debuted our Marine Fitter program, in collaboration with partners including ACCESS (Aboriginal Community Career Employment Services Society). Thanks to this partnership, two Metal Fabrication Foundation Indigenous cohorts have completed their Marine Fitter Level 1 training at BCIT. This is just one example of our collaborations with Indigenous community organizations.

ENERGY

PUTTING NEW ENERGY INTO EDUCATION

BCIT is a leader in training highly skilled graduates with energy expertise in the engineering, technical and trades disciplines. Applied research facilities such as Centre for Energy Education and Research support our collaborations with industries in the alternative energy sector, while training programs such as the Sustainable Energy Management Advanced Certificate provide students with the skills to help ensure power is being used as efficiently as possible.

We also practice what we preach. We have transformed spaces throughout the Burnaby Campus into living sustainability labs where we investigate approaches to reducing energy consumption—without reducing service levels.

Micro Grid, Macro Change

Working with industry, government and utility partners, BCIT has built a leading-edge, smart micro grid system on our Burnaby Campus that allows us to test the renewable energy solutions that will form the future of energy. Smart micro grid systems can power remote communities using renewable energy sources such as sun and wind, reducing reliance on fossil fuels. And we are applying our knowledge to benefit others. What was once an infrastructure project for our campus has become a model for future smart micro grids, with the power to transform communities at home, across Canada and around the world.

BCIT's Dr. Hassan Farhangi is the principal investigator and scientific director of the NSERC Smart Microgrid Network, a multi-disciplinary research program in partnership with government and industry.


4,000
communities globally are estimated to still be powered by diesel generators.


The BCIT Marine Simulation Centre uses real-world scenarios to help students build the skills they need to solve complex real-world challenges.

MOTION

MOVING OUR WORLD

BCIT students are re-imagining the way we move—by air, sea, road and rail. Our location in Metro Vancouver, the gateway to the Asia Pacific Region, positions us perfectly to take on real-world transportation challenges. We are developing a highly skilled workforce capable of transporting and connecting people and goods by means of a sophisticated infrastructure that will effectively support economic growth for years to come.

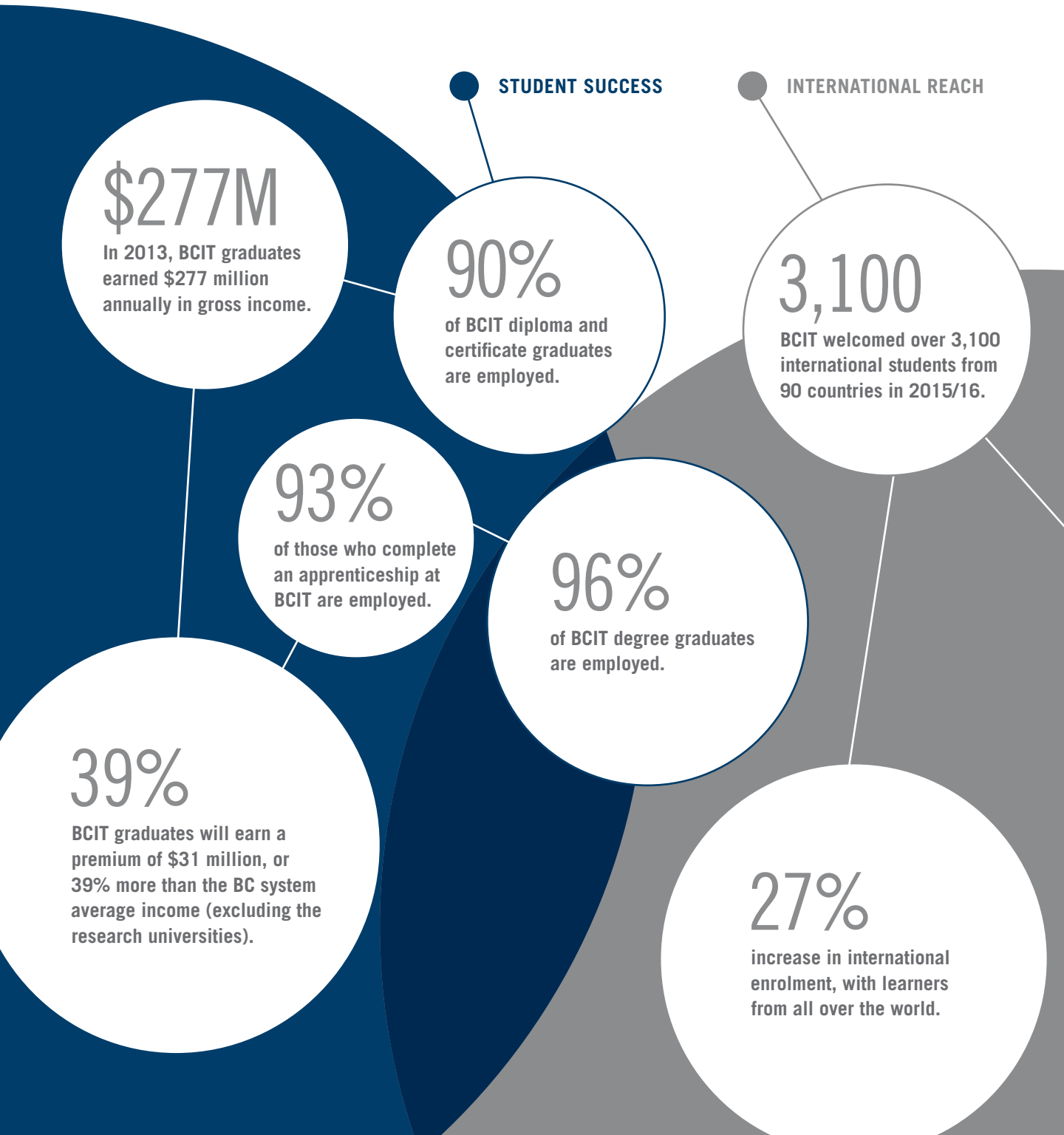
Moving beyond the classroom

Adjacent to the Vancouver International Airport in Richmond, BCIT operates a state-of-the-art Aerospace Technology Campus, with 20 training aircraft and an airport control simulation tower. The BCIT Marine Campus (BMC), located in North Vancouver, provides training for BC Ferries and other agencies. BMC is unique in Western Canada due to its Marine Engine Room Simulator, which provides true-to-life training for marine engineers.

The Motive Power Centre for Excellence at our Annacis Island Campus is an innovative centre for delivering heavy-duty transportation programming (road and rail) and is essential for BC's workforce needs. As part of our offerings, we bring the training to remote BC communities through the use of our mobile classroom that houses the heavy-duty simulator equipment and tools necessary to educate our students.

OUR IMPACT IS EVERYWHERE

BCIT, as an economic entity with about 2,400 employees, generated a net impact of $447 million in 2014, supporting 9,673 on-going jobs.



ECONOMY

900

In 2015, BCIT students, faculty and applied researchers delivered more than 900 applied research solutions to industry.

$763M

The overall impact of BCIT on the economy is just over three-quarters of a billion dollars ($763 million gross income and $579 million in net income).

40.6%

of BCIT international students are from China;
Brazil: 10.9%
South Korea: 9%
India: 5.2%
Vietnam: 3%
Germany: 2.3%

$15.2M

In 2013, BCIT received $15.2 million in research funding to support applied research.

Sources:
2015 BCIT Economic Impact Report;
BCIT Institutional Reports, 2015/16;
2014 BC Student Outcomes

HEALTH

EDUCATING FOR HEALTHY OUTCOMES

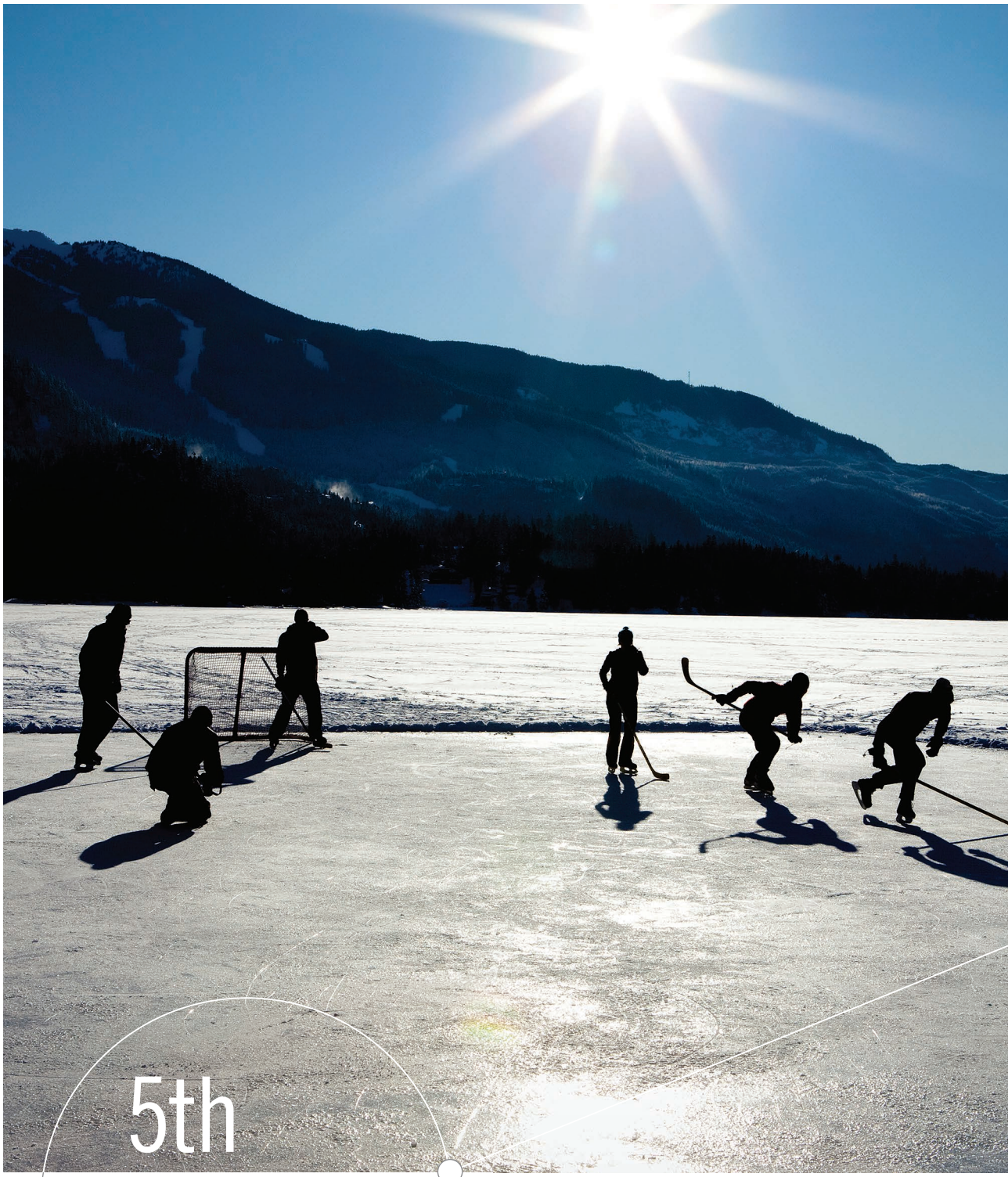
BCIT is a primary contributor of health professionals to BC's health system. Our 31 health-related programs, including one of the largest nursing programs in the province, are developed by industry professionals with the input of health care employers to be relevant to today's health care realities. We offer the only prevention-based health programs of their kind in BC: Food Technology, Environmental Health and Occupational Health and Safety. No other post-secondary institute carries the same range of programs that directly support the health system.

BCIT has been Canada's innovative polytechnic for clinical prosthetics and orthotics for over 30 years. We are currently advancing the state of practice in this field with applied research initiatives such as a collaborative international research project on Cranial Remodeling Orthoses. Recently, BCIT Prosthetics & Orthotics students travelled to India to complete their clinical placement with the Samuha Overseas Development Association (SODA), an organization that enables people with disabilities to lead independent lives. In India, BCIT faculty member Yvonne Jeffreys provided prosthetic care for Mahdi, a 24-year-old with a spinal cord injury, enabling him to stand and walk for the first time in four years.

Simulating life and death in the lab

BCIT's state-of-the-art Simulation Lab, which serves both undergraduate students and specialty nurses, is one of the largest of its kind in Canada. With 27 simulation mannequins, the lab uses customized scenarios developed by faculty to prepare nurses for the unique situations they will face in hospitals and clinical practice. As the premier educator of specialty nurses in British Columbia, BCIT is a beacon in the realm of virtual simulation. In the near future, BCIT will be conducting pilot projects around augmented and virtual reality systems to support a more immersive learning experience for nurses, no matter where they are located in the province.


BCIT brought prosthetic care to India, enabling Madhi, a 24-year-old with a spinal cord injury, to walk for the first time in four years.



5th

BCIT's rank among the top 50 Canadian research colleges in 2015.

MANUFACTURING

PARTNERSHIPS FOR SMARTER PRODUCTS

At BCIT, applied research teams provide practical solutions to industry challenges, producing unique, commercially relevant products, processes and applications. We work with industry partners at every stage of the manufacturing process—from supporting an independent entrepreneur with an idea for a unique prototype to developing a new technology for an established company. Our focus on innovation has been a monumental success: BCIT placed fifth in Research Infosource's 2015 ranking of the top 50 research colleges in Canada. Our industry partnerships also create practical learning opportunities for students, paving the way for their future career success.

Putting feedback on ice

How do you make hockey skates 'smarter'? That was the question BLUR Hockey owner Scott McMillan posed to BCIT. After having worked for six years with the Adidas Innovation Team, Scott wanted to pursue his own innovative idea—a hockey skate that would track player stride, gait, timing and balance. By capturing this data, players would be able to optimize their performance, gaining a competitive edge. BCIT's applied researchers ran with this idea, working with BLUR Hockey to create an initial prototype and gain additional funding. That prototype and the resulting funding gave Scott the boost he needed to take his idea to the next level, exploring small-scale production, player testing and further motion analysis.

INFRASTRUCTURE

BUILDING A SUSTAINABLE WORLD

BCIT is a leader in sustainability education and applied research that investigates natural and built environments and the relationship between them. Our areas of focus include education and technologies for recycling and restoration that use fewer materials and have less impact on the environment.

BCIT is one of the largest providers of construction and infrastructure training in Western Canada. We offer training and applied learning opportunities in trades, engineering and the natural and applied sciences, including master's degrees in building science and building engineering. Our curriculum is relevant, developed with input from industry professionals—which means our graduates are in high demand.

Constructing a stronger world

In many parts of the world, construction materials can be of poor quality, leading to devastation after a natural disaster. To help solve this problem, BCIT faculty researchers and students investigated the cause of construction failures following the 2010 earthquake in Haiti. Building on this research, a team of engineering and physics faculty members and students developed a device that uses sound waves to test masonry bricks. This inexpensive tool can be deployed in developing countries to identify low-quality bricks before they are used in construction.

In 2015 after Nepal's devastating earthquake, BCIT faculty member Dr. Bishnu Pandey and his team of engineers and geoscientists brought their infrastructure expertise to Nepal to evaluate the seismic performance of buildings.

Dr. Bishnu Pandey delivered recommendations to the Nepalese government for consideration in their rebuilding efforts following the 2015 quake.

20,000

The number of coders BCIT has provided to the high tech industry.

BUSINESS & INFORMATION TECHNOLOGY

PROGRAMMING THE WORLD OF BUSINESS

BCIT is shaping the world of business. We offer one of the largest selections of business programs in Western Canada, with 30 full-time and over 90 part-time programs. We also offer the largest selection of computing and IT programs and courses in Western Canada—everything from basic coding to information systems management. And we're leading the way in interdisciplinary education. Computer Systems Technology and Forensic Science Technology are just two examples of the extensive programs that are breaking ground in BC and beyond.

As part of our commitment to globalization, BCIT offers students pathways to a master's degree in business—online, locally and internationally. We also host European Field Schools in Italy, Austria, Germany, Ukraine and Poland, which allow students to earn credits towards their degree while studying abroad.

Protecting mission critical systems

Cybercrime is a rapidly growing global problem that requires international collaboration and a global approach. BCIT's new Centre for Cybersecurity, an interdisciplinary centre for applied research and education, will support existing programs in Digital Forensics and Network Security while advancing the state of practice under the leadership of Dr. Aaron Hunter.

Dr. Hunter has teamed up with researchers in France and the United Kingdom to solve problems of trust in broadcast communication. At the same time, he develops projects for graduate students at the University of Botswana, who will contribute to the Centre for Cybersecurity research while completing their education abroad.

At the BCIT Centre for Cybersecurity, students are gaining both the skills and the mindset required to be effective security professionals. The end game is to secure our information system infrastructure, in BC, Canada and around the world.

PARTNERSHIPS

If you share our vision for a smarter, more sustainable world, we want to work with you.

We are mobilizing a bold and ambitious campaign that will help the next generation of students by making BCIT more accessible, enhancing our educational programs and strengthening our financial foundation. Through partnerships with industry, alumni and individual donors, we are leveraging the resources critical to our mission.

Our goals are to globalize our curriculum, renew facilities and acquire the equipment necessary to continue our outstanding track record in applied learning and research. We strive to improve access to BCIT for students of all backgrounds and ensure that every student has the necessary financial resources to complete their BCIT education.

BCIT™

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