

UBC Okanagan **OUTLOOK 2040**



THE UNIVERSITY OF BRITISH COLUMBIA
Okanagan Campus

UBC Okanagan OUTLOOK 2040

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Executive Summary

The strategic plan, *Shaping UBC's Next Century*, forms the basis for *Outlook 2040*. It provides a future view of Okanagan campus and identifies the steps needed to move the university towards even greater impact and service to the people and communities of British Columbia.

The Outlook can be summarized as follows:

In 2040 UBC will be a premier public research university serving all of BC from its Vancouver and Okanagan campuses, innovation hubs and health programs across the province. The Okanagan campus will be a thriving UBC community of over 20,000 people including 18,000 students and 500 faculty members. UBCO will be recognized for its historic partnership with the Okanagan Nation and be a leader in Canada in the proportion of indigenous faculty and students. A transformative UBC investment of \$100M will have enabled a successful \$200M+ capital campaign to establish endowments so that by 2040 funding per student and student financial support at UBCO will be close to the level on the Vancouver campus.

UBCO will offer an array of excellent undergraduate, graduate and professional continuing education programs, delivered through hybrid pedagogies, to a diverse and international student body. The operating budget will have grown through the addition of new academic programs, including professional programs in health and technologies needed in the region, and through an increase in the provincial grant to support graduate student training, creating 1,500 graduate funded seats. Significant capital investment to the tune of \$452M¹ will have created the space needed to support the increased academic and research activity and community engagement.

Research and innovation will be driven by over \$100M per annum of research funding. The signature campus Innovation Precinct will provide experiential learning opportunities, accelerate innovation, solve real-world R & D challenges and foster creative expression. The Learning Factory will be a unique facility, advancing manufacturing technologies and new materials. UBC's annual economic impact in the Okanagan region will have grown from the current \$1.5 billion to \$4.8 billion.



Photo: Michelle Lamberson

Outlook 2040 is informed by local, provincial, and global contexts including estimates of future population, educational demand, and technological and social change. It considers possible future enrolment scenarios (Appendix 1) and academic program development (Appendix 3) and identifies next steps required to begin the journey towards 2040. These include: addressing TRC recommendations, investing in urgent academic and research space needs (\$20-25M), functional planning for the next major academic building (\$130M), advancing the Innovation Precinct, building the Learning Factory (\$78M), pursuing graduate student funding with AEST (\$15M), and launching the fundraising campaign for UBCO endowment (\$100M) within UBC's next campaign plan.

¹ All dollar figures are high level estimates only

Introduction



In 2018, UBC's Board of Governors requested the university leadership to offer an outlook for the Okanagan campus, so as to assist it in considerations of future capital and resource needs for the campus.

This document is a response to the request. It is based on UBC's new strategic plan, *Shaping UBC's Next Century* and reflects ongoing discussions at the Okanagan campus.

Taking the local and the global context outlined below, and enrollment trajectories since 2005, we have developed three enrolment scenarios ([Appendix 1](#)). The vision we present below represents the most ambitious of these scenarios in terms of undergraduate and graduate enrolment, while remaining conservative regarding undergraduate international student growth.

These scenarios, together with the Strengths, Weaknesses, Opportunities & Threats (SWOT) analysis presented to the Board of Governors September 2018 ([Appendix 2](#)), inform the outlook summarized in this report.

The context

UBC Okanagan (UBCO) was established in 2005 with a mandate to be a research-intensive university campus for the Southern Interior, and uniquely, was founded in partnership with local Indigenous peoples, the Syilx Okanagan Nation.

Building on a strong trajectory in terms of enrollments and research performance, UBCO is keen to take forward UBC's strategic plan while serving its mandate as a research university for the region. In particular, there are three important provincial priorities for which UBCO is especially well-positioned.

As indicated in the province's Labor Market Outlook, while BC tops Canada in the percentage of its population who complete high school education, its average percentage of population with post-secondary credentials and graduate degrees falls below the Canadian average, as does the provincial ratio of higher education R&D to GDP.² The provincial Outlook also estimates that 77 percent of the jobs created in BC the next 10 years will require some level of post-secondary education or training; only three percent of these positions will be available for those with high school education.

Second, British Columbia has a substantial achievement gap for aboriginal learners. In its report on aboriginal learners in the public post-secondary system, the Ministry of Advanced Education, Skills and Training notes four distinct ways in which this gap manifests itself:

- Underrepresentation in research-intensive universities: On an average, only 22.8% of BC's aboriginal learners are likely to attend research-intensive universities (vs. 45.1% non-Aboriginal learners).³
- Barriers to transition from K-12 to post-secondary: On an average, only 63% of Aboriginal Grade 12 graduates transition to a post-secondary institution, compared to 72% of non-Aboriginal Grade 12 graduates. The Report urges public post-secondary institutions to find strategies to enable this transition.
- Underrepresentation in breadth of disciplines: In comparison with non-Aboriginal learners, Aboriginal learners are more likely to receive credentials in the Trade, Human and Social Services, and Developmental programs, and less likely to receive credentials in Arts and Sciences, Business and Management, and Engineering and Applied Sciences.⁴ The Report urges post-secondary institutions to ensure that Aboriginal learners are appropriately represented in these disciplines.
- Underrepresentation in graduate education: Only 8.4% of Aboriginal learners obtain a graduate or first professional degree, as opposed to 14% of non-Aboriginal learners.

Third, UBCO is keen to respond to the growth in the technology sector. It has recently opened a new Innovation Hub in downtown Kelowna to facilitate collaboration with industry and the broader community and to open up new pathways to innovation in the region. The 2018 Economic Impact of the Okanagan Technology Sector report confirms that the Okanagan is a booming hub for tech and innovation, representing a 24% increase from 2013.

² British Columbia's Labour Market Outlook workbc.ca/Labour-Market-Industry/Labour-Market-Outlook.aspx

³ P22, *Aboriginal learners in the public post-secondary system*, the Ministry of Advanced Education, Skills and Training

⁴ P28, *Aboriginal learners in the public post-secondary system*, the Ministry of Advanced Education, Skills and Training

Regional and local context

British Columbia's population is projected to continue to grow substantially over the next 25 years, reaching between 5.1 million and 6.6 million by 2038. The Okanagan is home to British Columbia's fastest and Canada's sixth fastest growing census metropolitan area, with population increases well above the national and provincial rates. The Central Okanagan is expected to outpace provincial population growth over this period.

Notably, growth in the BC indigenous population is substantially higher than overall provincial averages. The Westbank First Nation population increased by 27.9 percent from 2011-2016 and the mean age of the indigenous population is younger than that for BC as a whole. We recognize that closing the university participation gap for indigenous populations is not only a moral imperative, but also one that presents huge potential benefits to Canadian society. About 42.5% of BC's Aboriginal population is under 25, compared to 26.1% of the non-Aboriginal population.⁵

Important qualitative changes are also emerging in BC's education scenario. For example, significant changes are happening in the BC high school curriculum:⁶

British Columbia's redesigned curriculum brings together two features that most educators agree are essential for 21st-century learning: a concept-based approach to learning and a focus on the development of competencies, to foster deeper, more transferable learning. These approaches complement each other because of their common focus on active engagement of students. Deeper learning is better achieved through "doing" than through passive listening or reading. Similarly, both concept-based learning and the development of competencies engage students in authentic tasks that connect learning to the real world.

These changes will have serious implications for universities as future graduates of BC high schools will enter university with new expectations for their education.

The social fabric of the region is likely to change quite significantly. As expressed in *Imagine Kelowna*, the citizens of Kelowna aspire to a city that is able to stay connected to its community roots while welcoming people from all over the world:

In 2040, Kelowna is a thriving mid-sized city that welcomes people from all backgrounds. We want to build a successful community that honors our rich heritage and also respects the natural wonders that contribute to our identity. As a place with deep agricultural roots, Kelowna understands the need to protect our environment, manage growth and be resilient as our future unfolds. —Imagine Vision, City of Kelowna

⁵ P5, *Aboriginal learners in the public post-secondary system*, the Ministry of Advanced Education, Skills and Training
⁶ curriculum.gov.bc.ca/curriculum/overview

The region as a whole faces some new and emerging challenges. A recent BC Business Council report concludes that 42 percent of jobs in the province will be in occupations with high potential for automation in the next 10-20 years (representing a slightly greater share compared to Canada as a whole). Further, significant risks to the ecosystem, water quality, and extreme weather have been predicted. These risks and opportunities reinforce the importance and value of having an engaged outward facing public research university campus in the region.

Global context

Globally, the demand for higher education is expected to continue to accelerate in every part of the world as we approach 2040. The UNESCO Institute of Statistics predicts an increase of nearly 120 million students in higher education by 2030, of whom 2.3 million will be internationally mobile. This amounts to a 51 percent increase in international student enrolment globally.⁷

Rising international student mobility is an outcome of the phenomenal growth in the participation in higher education in most parts of the world. Many national governments are not equipped to accommodate this growth in demand. In places where this is accompanied by a growing middle class, there is a strong drive to pursue education opportunities elsewhere. Canada is an attractive destination and UBCO is well-positioned to serve international students. Its rising reputation as a destination of choice for international students is evidenced in the strong growth of applications both at the graduate and undergraduate levels.

As we approach 2040, demand for higher education will also come from non-traditional students, i.e. citizens who wish to acquire new knowledge and skills as they become available. Many forecasters predict massive changes in the world of work will be driven by artificial intelligence (AI), machine learning and other new technologies.

Given the rapid changes in technologies we have witnessed over the past 20 years we can be certain that the next 20 years will see an ever-increasing impact of new technologies on the university. It is likely that emerging and as yet undeveloped technologies will be transformative. Already AI, machine learning and block chain technologies are transforming business processes. Technologies such as augmented and virtual reality offer extraordinary opportunities for immersive learning across numerous disciplines and are already being used in fields as diverse as health professions, chemistry, archeology and engineering. One can imagine a course offered across several UBC campuses where students experience an immersive virtual lecture with a holographic professor demonstrating techniques and allowing students to participate.

These changes will offer new opportunities to increase affordability of university education. Increasing availability of open learning materials and textbooks, free access to global on-line library resources and shared courses between campuses offer the possibility of extraordinarily rich and affordable learning experiences for students that would have been unimaginable 30 years ago. Sharing academic resources and opening up to global connections could create a truly exceptional learning and teaching environment without boundaries or limits for future UBC students.

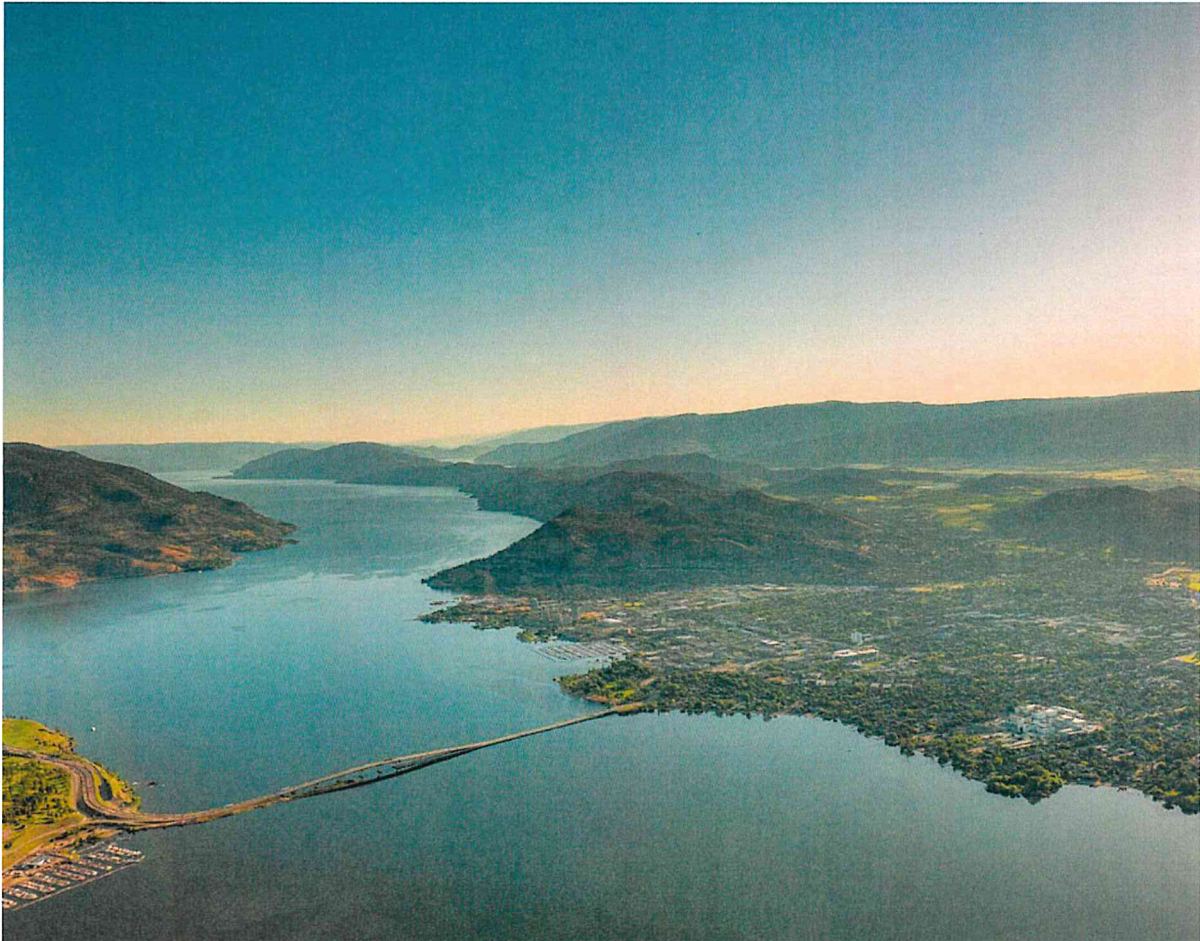
These trends taken together suggest that universities will be called upon to educate a highly ambitious, globally connected community, faced with at least three common 'grand' challenges: climate change; disruptive technologies; and demands for social justice and inclusion. We will see the emergence of many new types of learners, and will need to develop new pedagogical and curricular approaches to serve them.

⁷ educationdive.com/news/8-global-trends-impacting-higher-ed/515272

UBC Okanagan in 2040

In 2040, UBC is globally recognized as a top public research university with two highly successful campuses, each with a distinct character forged by their location, mandate and the communities they serve. They share system administrative functions and enjoy strong academic and research linkages and synergies. The Okanagan campus is recognized for community-engaged interdisciplinary research and teaching in the arts, creative fields, STEM and professional disciplines.

UBC recognizes that a diverse and international student body is a key contributor to a truly world class learning experience and that to offer comprehensive and excellent academic programs the UBCO campus needs a critical mass in key disciplines. UBCO offers a comprehensive range of academic programs across the sciences, arts, creative disciplines and professional fields (Appendix 4) and has synergistic academic links with the UBC Vancouver campus. It is a destination of choice for students in the region, across Canada and the globe; combining disciplinary and interdisciplinary approaches to create an extraordinary community of scholars, citizens, professionals and thought-leaders.



UBC Okanagan's tenure stream faculty cohort has grown from 267 to 500, stabilizing the undergraduate student/faculty ratio at 24:1 and overall non-research student/faculty ratio to 33:1.

UBCO's student body is a diverse community of ~18,000 students, comprising 12,000 undergraduates (25% international); 3,000 graduate students; and 3,000 students in full cost recovery, post baccalaureate and graduate professional degree programs, and non-degree and flexible programs.

The Okanagan campus is utilised year round, offering a comprehensive and innovative range of summer programming available to all UBC students.

UBCO's unique research programs attract top students from around the world. Two in three research graduate students hold scholarships.

UBC Okanagan is a destination of choice for Okanagan region high school graduates because it offers diverse pathways ensuring high levels of transition from high school to university.



UBCO is a leader in Canada in the proportion of indigenous faculty and students. It has continually enhanced support for indigenous undergraduate students and been successful in supporting transitions to graduate and post-doctoral studies and to academia and other professional careers.

New endowments have been established to support UBCO students. By 2040, operating funding on a per student basis at UBCO is closer to the level available to students on the Vancouver campus.

UBC is cognizant of the rapid changes in the world of work and training and offers programs that respond to a rapidly changing society. The Okanagan campus offers a suite of distinctive programs delivered through hybrid pedagogies, which assist people to acquire new skills. UBCO has extensive partnerships with the college system offering a suite of seamless educational paths that meet the needs of trainees and community and are recognized nationally. UBCO strives to ensure that learners and communities are served by advances in science, technology, health care and business, rather than excluded or displaced by them.

UBCO surpassed national success rates in Tri-Council research competitions in 2017 and annual research income continued to grow by ~8% per year. In 2040 UBCO annual research funds are \$100M. This reflects a continued strong commitment to fundamental research and scholarship, and to partnerships that translate research into practice. The international reach of the campus has expanded significantly, and by 2040 UBCO has ~60 active research collaborations within 30 countries, involving over 250 UBC researchers.

The Okanagan campus is entrepreneurial and leverages revenue generation from its assets. The Innovation Precinct is a landmark development, with para-public, for-profit and non-profit entities working collaboratively with UBC researchers and trainees. The Innovation Precinct has provided thousands of experiential learning opportunities for UBC students while accelerating innovation, solving real-world R & D challenges and fostering creative expression.

Inside and outside the classroom UBCO offers a student experience that is second to none. The campus excels in bringing together academic and social supports, as well as community support for health and well-being. The Okanagan campus is considered a model campus for health and well-being. In 2015, it adopted the Okanagan Charter for Health Promoting Universities and Colleges as a framework strategy and has infused health promotion into operations, business practices and the academic mandate. The campus is recognized for its commitment to well-being, social justice, inclusion and sustainability. Examples include: a dedicated center for students with disabilities, offering support from pre-university orientation to post-university transition and career development; a state-of-the art walk-in community clinic that provides students, staff and faculty with outstanding care for acute and chronic physical and mental issues, and others. A team of physicians, nurse practitioners, psychologists and social workers allows UBCO to meet client needs while supporting key commitments to overall wellness and healthy living.

Since UBCO brought food service in house in 2019 it has seen significant enhancements in food service, nutrition and food availability on campus. In collaboration with local suppliers and community partners there are numerous healthy and affordable food options for students and staff.

Beginning in 2019, UBCO capital infrastructure projects were designed as near net zero projects (i.e., total energy used by a building per annum roughly equal to renewable energy created on site). UBCO is recognized as a Canadian PSE leader in this domain, with over 1,000,000 sq.ft space built since 2020 meeting this standard (as evidenced by sensors in all capital projects initiated since 2018). UBCO's annual economic impact in the community has grown from the current \$1.5 billion to \$4.8 billion (adjusted for inflation; in 2018 dollars).



Investing in our future

The outlook for the UBC Okanagan campus presented in the preceding section aligns with the vision, goals, themes and core areas defined in the UBC Strategic plan.

To realize this ambitious future, a number of near and longer term plans are in development to ensure necessary resources are in place to support research excellence, transformative learning and local and global engagement.

1 **TRC commitments** (Strategies 1, 3, 4, 17)

With guidance from its Indigenous/Aboriginal Advisory Committee, UBCO is making important commitments to the TRC Calls to Action. These will include, but are not limited to: creation of space for indigenization; efforts to close the indigenous achievement gap in post-secondary education in BC, hiring of indigenous scholars, and indigenization of the curriculum.

NEXT STEPS

- Develop implementation plans

2 **Space and capital planning** (Strategies 1, 2, 3, 6, 7, 9, 10, 14, 15, 16, 17, 20)

The space shortfall at UBCO (as per 2017 data) is estimated to be -420,000 gsf, or the equivalent of about 45% of existing academic space on campus (according to BC University Space standard guidelines). While this space shortage will be moderated somewhat by the new Commons building (-68,000 gsf), much more needs to be done. UBCO's 10-year capital plan envisions an addition of 460,000 gsf of academic space by 2027, alongside additional student housing developments that will add 1,000 beds. The estimated cost of the plans for academic space amount to \$452M over the next decade and includes the following:

- **Modular buildings for Engineering teaching labs, office space** – in progress
- **Renovations to 1540 Innovation Drive to accommodate research space, innovation precinct partners for Faculty of Creative and Critical Studies and School of Engineering-in progress**
- **Lease of 1545 Innovation Drive for immediate teaching, research and office space** – in progress
- **Research Greenhouse** – in progress
- **Outdoor classroom and indigenous learning space** – in progress
- **Skeena – Passive house student residence** – in pre-construction (expected 2020)
- **Nechako – Student Commons and residence** – in pre construction (expected 2021)
- **Interdisciplinary Collaboration and Innovation (ICI) building – Academic and research building** – functional planning in progress, construction anticipated 2024
- **Digital Learning Factory – Mixed use, digitally-twinning research/learning/production facility** – business plan in development, construction anticipated 2024
- **Building expansion – expansion of existing academic building to meet needs for academic and research space** – 2026
- **Future Academic Building 2** – 2028
- **Two additional student residences** – 2028

NEXT STEPS

- Meet short term urgent space needs (modular buildings, renovations and 1540 Innovation Drive)
- Begin functional plan for ICI Interdisciplinary Collaboration and Innovation (ICI) Building
- Advance Learning Factory project

3

Provincial support for graduate student education (Strategies 1, 7, 8, 10, 15, 16)

Having met and exceeded the thresholds of 10,000 students and \$20 million in annual research funding in 2018, the Okanagan campus now looks to focus efforts to truly achieve its original mandate as “a Southern Interior research intensive university campus”.⁵ By becoming a truly world class research institution, UBCO will broaden opportunities for students in the Southern Interior and greatly enhance the campus’ regional socio-economic impact. A key component in this effort will be increasing the number of research graduate students on campus.

Graduate students are key to the success of research intensive universities, and, by extension, the regional economies and communities they support. UBC Okanagan’s small number of graduate students limits the campus’ ability to expand its positive impact on regional socio-economic development and create new, diverse opportunities for the Southern Interior. With less than ten per cent of the student body Master’s and PhD candidates, UBC Okanagan remains far behind comparator institutions across Canada.

One factor behind UBC Okanagan’s low proportion of graduate students is the nature of the campus’ provincial grant, where, unlike peer institutions (e.g. University of Victoria, Simon Fraser University, and UBC’s Vancouver campus), UBC Okanagan does not receive grant funding allocated specifically for research graduate students. This lack of differentiated graduate student funding reduces UBC Okanagan’s ability to support graduate student education and does not acknowledge the high costs associated with their training. This is particularly challenging for high demand programs in health, science, technology, and engineering, where the costs of program delivery are significantly higher.

Therefore, a proposal has been developed for provincial government consideration to provide grant funding for graduate students at UBC Okanagan for an amount of \$15M.

NEXT STEPS

- Pursue graduate student funding proposal with AEST

8 2004 memorandum of understanding between the Province and UBC

4 Fund development strategy (Strategies 1, 2, 4, 8, 13, 14, 15, 18)

Our top priority is to launch a \$100M campaign to build new endowments for student support and for support for our emerging academic strengths. We wish to use internal UBC funds to match donor commitments for a total investment of \$200 million towards these priorities. In addition to this focus, efforts will continue to ensure donor support for the capital priorities listed previously.

NEXT STEPS

- Assess feasibility; develop donor pool; integrate UBCO's \$100M endowment campaign with UBC's campaign plan

5 Innovation Precinct (Strategies 6, 7, 8, 9, 16, 19, 20)

In 2015, the university identified a largely undeveloped 60-acre area at the northern end of the UBCO campus as future Innovation Precinct. This was identified as a site that would become a dynamic, transformative part of campus that could serve as a catalyst for creative new partnerships. A significant portion of this site is being developed as zones in which for- and not-for-profit entities are housed to work with UBC researchers and knowledge creators. These shared spaces will allow UBC to interact with external partners in new ways, collaborating to find solutions to real-world problems while deploying innovative new technology solutions and providing new education and training opportunities. The precinct will not only curate new ideas, test boundaries and make ground-breaking new discoveries, but provide new and exciting opportunities for interdisciplinary collaboration, experiential education and hands-on learning.

NEXT STEPS

- Create business plan for the precinct based on recently completed structure plan
- Create streamlined lease mechanisms to facilitate industry partnerships

6 Great Faculty and Staff (Strategies 1, 3, 4, 11, 17)

As the reputation of the campus grows we will continue to recruit and retain world-class faculty and staff, with a commitment to building a vibrant and connected experience for all who work here. We will enhance and support workplace learning through a range of skills and leadership development programming, and mentoring, succession planning, recognition and retention initiatives. Staff and faculty wellness is being enhanced by the introduction of an operational focused role to implement practical, supportive wellbeing initiatives on campus.

NEXT STEPS

- Implement the strategies in the *Focus on People Plan*
- Investigate improved supports for employees and students with families, daycare etc.

Conclusion

As UBC looks to “Shape its Next Century”, it is clear that the key to realizing its vision of “inspiring people, ideas and actions for a better world” is by enhancing academic and research capacity across the UBC system and increasing collaborations between its campuses. This will require significant investments so as to enable the Okanagan campus reach the necessary critical mass to offer appropriate and comprehensive academic programming and achieve a level of research intensity to contribute fully to UBC’s mission.

This document provides a scenario of what success would look like for UBC in 2040, if the Okanagan campus is able to realize its potential. Transforming this potential into reality requires short and long term investment in students, faculty and staff and the facilities and resources necessary for them to do their best work and to foster global citizenship and advance a sustainable and just society across British Columbia, Canada and the world.

NEXT STEPS

- 1 RESPONSE TO TRC CALLS TO ACTION**
Develop implementation plans
- 2 SPACE AND CAPITAL PLANNING**
Meet short term urgent space needs (modular buildings, renovations and 1540 Innovation Drive); begin functional plan for the ICI building, advance Learning Factory project
- 3 PROVINCIAL SUPPORT FOR GRADUATE STUDENT EDUCATION**
Complete and present graduate student funding proposal to AEST
- 4 FUND DEVELOPMENT STRATEGY**
Assess feasibility; develop donor pool; integrate UBCO \$100 campaign with the overall UBC campaign plan
- 5 INNOVATION PRECINCT**
Create business plan for precinct based on recently completed structure plan and create streamlined lease mechanisms to facilitate industry partnerships
- 6 GREAT FACULTY AND STAFF**
Implement the strategies in the Focus on People Plan and the Okanagan response to the Truth and Reconciliation recommendations.

Investigate improved supports for employees and students with families, daycare etc.

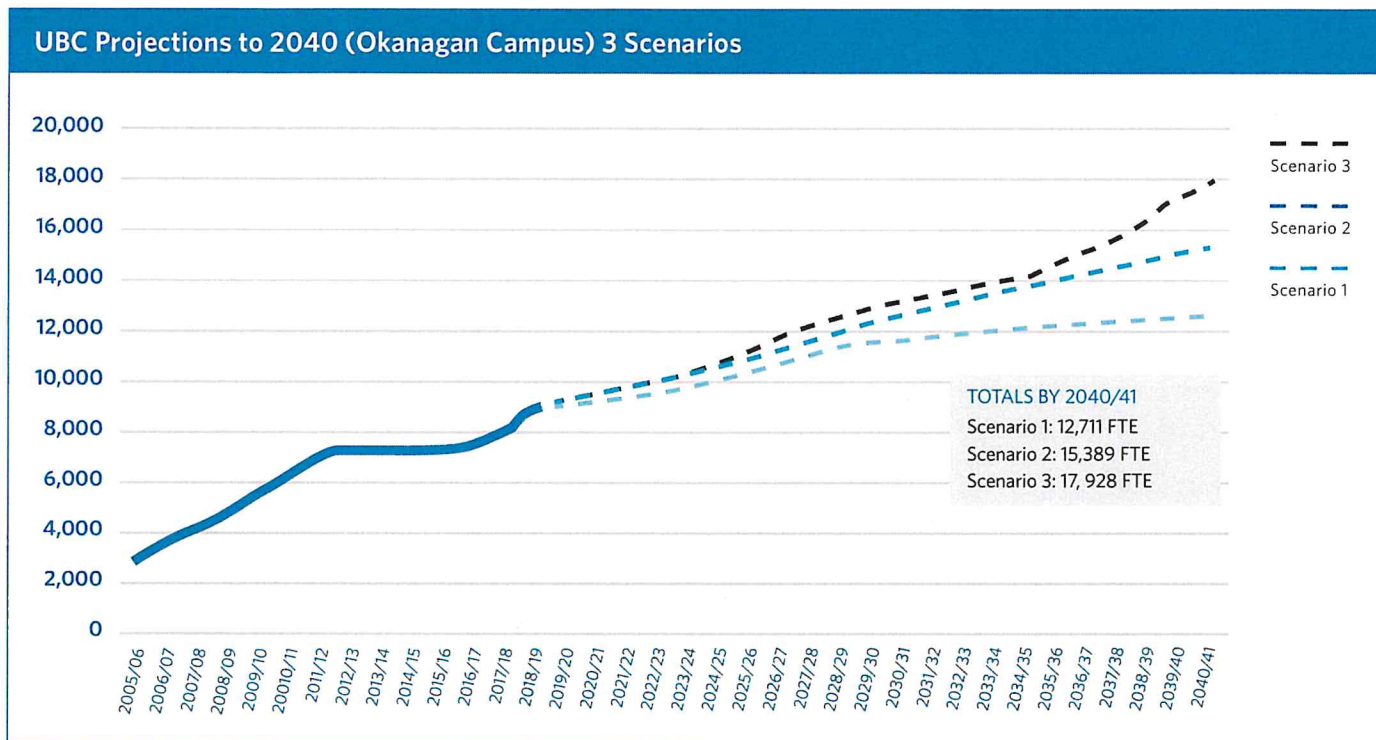
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Appendix 1.

ENROLMENT SCENARIOS, 2040

Three enrolment scenarios were developed, based on current trajectories, academic strengths, demand, challenges, opportunities, the Aspire vision and the UBC strategic plan.



Scenario 1:

No increase in funded undergraduate domestic seats, FTEs held at 109% of funded ministry targets to 2040. Existing and currently approved new seats total 7,237 FTE by 2023. 500 new research graduate seats funded in 2020, supporting regional socio-economic development. Rising demand for full cost recovery programs, certificates, etc. beginning 2020 rising to 10 programs and 1000 students 2028, 20 programs and 2000 students by 2040. International undergraduate student number held at 25%.

(8,000 undergraduate, 2,600 graduate, 2,000 full cost recovery = 12,600)

Scenario 2:

Enrolling a diverse and international student body that represents British Columbia, Canada, and the world is key to providing an enriched student campus experience. This scenario is as Scenario 1, but allows increased undergraduate international enrolment to 30% by 2040.

(10,000 undergraduate, 2,600 graduate, 3,000 full cost recovery = 15,600)

Scenario 3:

Domestic funded seats increase to 10,000 from 2024 -2040, at the rate the regional population aged 15-19 increases (offset 2 years to account for university-aged students), holding steady 2030-35 then increasing from 2036 to 2040 (BC Stats projections for the Okanagan region). International undergraduate students held at 25%. Research graduate student numbers reach 2000, taught Masters programs 1000, and full cost recovery and short programs 3000 by 2040.

(12,000 undergraduate, 3,000 graduate, 3,000 full cost recovery= 18,000)

Appendix 2.

STRENGTHS, OPPORTUNITIES, WEAKNESSES, THREATS (SWOT)

as presented September 2018

| | Strengths | Opportunities | Weaknesses | Threats |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| People and expertise | <ul style="list-style-type: none"> Vibrant faculty, majority hired in last 10 years Interdisciplinarity Strong campus culture Several domains of research strength | <ul style="list-style-type: none"> Growth in key programs Innovation in teaching and learning Cross-institution collaborations Industry and community partnerships | <ul style="list-style-type: none"> Lack of senior faculty Nascent graduate programming Not yet critical mass Career development opportunities limited | <ul style="list-style-type: none"> Ability to recruit excellent faculty, students and staff Retention Non competitive compensation Rising housing costs |
| Resources and infrastructure | <ul style="list-style-type: none"> Location Room to grow Recent facilities Intimate campus Campus master plan District energy strategy Budget model | <ul style="list-style-type: none"> Revenue generating CPE Cross-campus synergies and differentiation Innovation precinct Expansion of housing and on campus services Collaboration with City and other partners | <ul style="list-style-type: none"> Critical shortage of academic and research space and infrastructure Enterprise IT systems Limited funding Endowment income Constraints on land development (ALR) | <ul style="list-style-type: none"> Low grant per FTE Wage inflation Inadequate research funding and support Access to capital for academic and research space Lack of recognition |
| Environment | <ul style="list-style-type: none"> Engaged communities Many industry partners Aboriginal community engagement Strong regional economy Affordable housing | <ul style="list-style-type: none"> Collaborative ventures with community and industry Regional social and economic impact Innovation in the Interior Population growth | <ul style="list-style-type: none"> Small local labour market Research and teaching agenda at Interior Health at early stage Limited donor potential Limited services | <ul style="list-style-type: none"> Small local population Demand for PSE Lack of alumni and engaged donors Constraints on land development |
| Academic and research | <ul style="list-style-type: none"> Many strong academic programs Community engaged learning Indigenous access and success Research capacity and outputs growing rapidly | <ul style="list-style-type: none"> Strong student demand Expansion of health and engineering programs Collaboration in programming Expanding research New graduate programs | <ul style="list-style-type: none"> Ineligible for small university benefits (CFI, CRCs, Indirects etc) Some programs lack critical mass BA program issues Coordination between health and medicine Limited graduate student funding | <ul style="list-style-type: none"> See above |

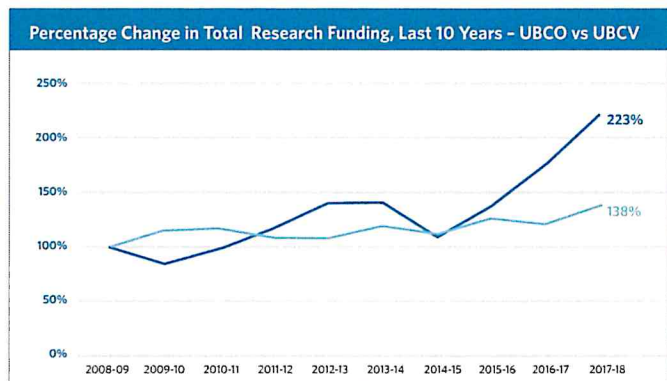
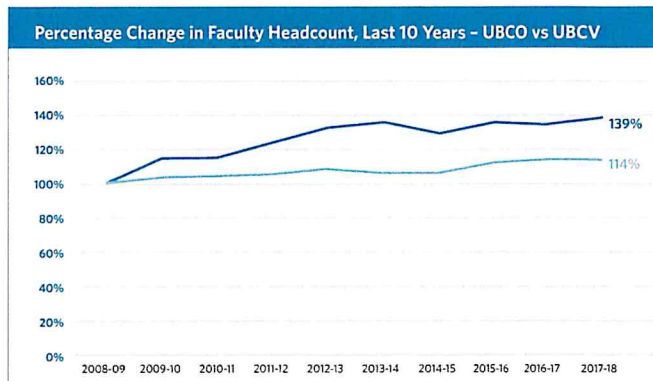
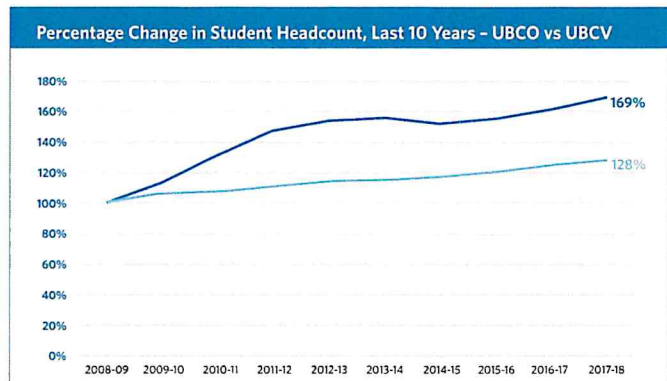
Appendix 3. PROPOSED PROGRAM OFFERINGS (TO 2025)

| | Faculty Health & Social Development (FHSD) | Arts & Sciences (IKBSAS) | School of Engineering (SoE) | Faculty of Creative & Critical Studies (FCCS) | Okanagan School of Education | Faculty of Management (FoM) | Inter-faculty |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Undergraduate | | <ul style="list-style-type: none">• Re-envisioned BSc with indigenous content requirement | <ul style="list-style-type: none">• Integrated engineering• Food engineering• Aerospace engineering• Computer engineering | <ul style="list-style-type: none">• BA in World Literature• Degree specializations in digital media, digital humanities, and film studies | | <ul style="list-style-type: none">• Indigenous Language-competency framework• Re-envisioned BA with requirements in indigenous content, communication, critical thinking and scientific literacy/ numeracy• Software engineering (SoE + IKBSAS)• Management science & engineering (FoM + SoE) | |
| Masters | <ul style="list-style-type: none">• Master of Kinesiology• Occupational Therapy• Physical Therapy | <ul style="list-style-type: none">• MSc, Food Biosystems• MSc, Mathematics• MSc, Modeling and Optimization• MSc, Physics• Professional Master of Data Science in Earth Observation• MSc, Statistics• MSc, Micro-Analytical Techniques• MA, Applied Economics• Industrial Psychology• Public Policy• Cultural Heritage Management• Aboriginal/Indigenous Community Development/ Administration | <ul style="list-style-type: none">• MASc, Aerospace engineering• MASc, Resilient Infrastructure Management• MASc, Manufacturing Engineering• Data-centric Management & Engineering | | | <ul style="list-style-type: none">• Masters, Health Technologies (FHSD and SoE)• Masters of Health Management (FHSD and FoM)• Arts Management (FCCS and FoM)• MSc, Data Engineering (IKBSAS and SoE) | |
| Accelerated Masters | | | | | | <ul style="list-style-type: none">• A fifth year in management: a campus-wide management program delivered immediately following completion of an undergraduate degree, as a fifth year of study. Depending on their UG degrees, students can opt for different specialisations, e.g. engineering management, management of creative industries, health management, public management etc. | |
| PhD | <ul style="list-style-type: none">• Nursing• Nurse Practitioner (with UBCV Applied Science)• Social Work | <ul style="list-style-type: none">• Computer Science (currently undergoing approval)• Data Science | | | Doctorate in Education | | <ul style="list-style-type: none">• PhD in Physics, possibly joint between the Dept. of Computer Science, Mathematics, Physics and Statistics and the SoE |
| Certificate (graduate and/or UG) | | | | | | | <ul style="list-style-type: none">• Health Management• Wine Management• Cannabis Management• Creative industries management |
| Non-degree credentials | UBC Okanagan Senate has recently passed policies which enable us to offer non-degree programs in a variety of formats. | | | | | | |

Appendix 4.

OKANAGAN CAMPUS HISTORIC GROWTH, 2008-2018

The MOU establishing UBC in the Okanagan envisioned a Southern Interior research-intensive university. By all measures, UBCO is on its way to fulfilling that promise.



UBC Total UBCO

As per the preceding graphs, UBC Okanagan has exceeded its provincial enrolment targets, which, notably, includes an increase in graduate students from 41 to 949 since 2005. It has a rapidly growing complement of early-to-mid career faculty, and has seen a dramatic increase in research funding.

The provincial government and UBC designed the Okanagan to be able to adapt and grow to serve future regional needs, having a local Senate and leadership structure and UBC system support.

This has allowed the campus to be responsive to community demand, introducing new programming such as the Bachelor of Media Studies, a redesigned Bachelor of Education, and a Masters in Data Science and, with the Vancouver campus, a new program in manufacturing engineering. The campus has also introduced a campus-wide co-op program, and expanded access programs for Indigenous students.

In research, strong community partnerships combined with globally-connected researchers and a high value placed on collaboration have resulted in emerging strengths in the areas of: healthy people (rural and remote health, chronic disease

prevention, healthy living and aging); emergent technologies (materials and manufacturing, sustainable infrastructure, biomedical engineering); resilient environments (sustainability, ecosystem management, restorative and high value agriculture); and thriving communities (arts and creativity, indigeneity, social innovation and community resilience).

A distinguishing characteristic of UBCO is its relationship with surrounding communities. As a campus that emerged from community demand, its faculty, staff and students have consistently worked with the region through initiatives such as the Southern Medical Program, MOU's with the Okanagan Nation Alliance and the City of Kelowna, the wine sector throughout the Interior, the Healthy Cities initiative, Opera Kelowna and countless co-op placements and research projects. Planning for the Innovation Precinct is well advanced and likely to be a landmark project that further connects UBC with its community in new ways. UBCO has the opportunity to be a critical partnering site for UBC, bringing together UBC researchers from both campuses with global partners.



2018



2040

UBC Okanagan OUTLOOK 2040

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THE UNIVERSITY OF BRITISH COLUMBIA
Okanagan Campus