

ENGAGE 2020

The UBC Applied Science Strategic Plan



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA



3:59:04



Photo: /Martin Dee

On May 6, 1954, British athlete and academic Roger Bannister became the first person to run a mile in under four minutes—3:59:04. He changed our conception of what was possible, such that breaking the four-minute barrier has become the new normal.

The applied sciences—architecture, landscape architecture, engineering, nursing, and planning—change society’s conception of what is possible as a matter of course. Applied scientists make dreams real, turn ideas into practice. We embody the interface between present and future.

It’s time for UBC Applied Science to break its own four-minute barrier. In the 21st century, the playing field for a research-intensive university is global. Our self-perception and our aspirations must be as well. We have for our starting blocks a solid 100-year history; now, we move with the speed and innovation of a start-up.

We are ideally positioned to address some of the greatest challenges of our time. But they are challenges that defy individual intelligence and demand instead the holistic genius of the team. We must cross cultural and disciplinary boundaries, and come to trust in each other’s knowledge and imagination as much as in our own. We must learn to see the world through one another’s eyes, and come to see bigger picture and longer term. We must push the limits of what is possible—and define our own new normal.

Leaders, dreamers, doers, professionals, pioneers, applied scientists... this is our time.

Marc Parlange
Dean, Faculty of Applied Science
The University of British Columbia



OUR MISSION To create positive change in the world through the generation, professional embodiment, and innovative application of new knowledge.

OUR VISION To provide an unparalleled research and learning environment in which creative minds work together to address today's greatest challenges in service to society.

OUR VALUES

CONNECTION

We engage one another with respect and scholarly generosity within an open and inclusive culture.

LEADERSHIP

We are a Faculty of leaders. We take the initiative. We are defined by our integrity, excellence, innovative mindset, and passionate spirit of engagement.

IMPACT

Our choices and actions reflect our common purpose: transformative change.



OUR COMMITMENTS The Faculty's commitments are articulated alongside the goals and actions that will allow us to see them through. Grounded in our present strengths and focused on our future, the plan is designed to evolve as we do. These priorities will drive our decisions.



A CULTURE OF VALUING PEOPLE

The Faculty provides a values-driven culture, creating an environment that fully supports passionate engagement in scholarly activity and attracts and retains world-class students, staff, and faculty from around the globe.

A FOCUSED RESEARCH ENTERPRISE

The Faculty defines and hones its exceptional research strengths, assumes global leadership, expands the boundaries of professional practice, and accelerates knowledge mobilization to benefit society.

A DISTINCTIVE LEARNING ENVIRONMENT

The Faculty provides a superb student experience: outward facing, research driven, hands on, and grounded in core fundamentals, sustainability, and integrity.

AN ENGAGED COMMUNITY

The Faculty partners with its communities to advance the wellbeing of society by addressing social, economic, cultural, and ecological challenges.

A CULTURE OF VALUING PEOPLE

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A Nursing faculty member studies men's health at UBC BodyWorks Fitness Centre. UBC Nursing has an international reputation for research and scholarship characterized by social relevance. Photo: Martin Dee



Students, faculty, and staff turn out for UBC Applied Science's annual 2K Turkey Trot to raise awareness and funds for the United Way. Photo: Rob Kruyt

We—architects, landscape architects, engineers, nurses, and planners—embody the ethics and values of our respective professions, and co-create a culture infused by them all.

On the vanguard of the global shift toward sustainability in all arenas, we take to heart its application to academic culture, and seek to embed the basic tenets of wellbeing in our policies and daily practices, both personal and professional.

We nurture an ethos of collegiality and scholarly generosity, blending the best of academia's traditions with an unequivocal commitment to equity and diversity of every kind.

We recognize leadership as separate from title or role, as an attribute that can be learned, and acknowledge it in all its manifestations. Leadership training is an integral part of both educational and professional development at all levels.

We redefine success to include all committed action toward it. As with leadership, we establish recognition and reward structures that reflect our esteem of the courage to risk.

A community of diverse disciplines on campuses in two cities, we recognize the promise inherent in our differences. We are at our best when faced with problems considered by most to be impossible to solve, for it is there that our varied approaches, practice cultures, and discipline-specific languages, combined, become our greatest strength.

GOAL 1

Attract outstanding students, faculty, and staff.

ACTIONS

- 1 Ensure inclusive processes to recruit and retain outstanding students, faculty, and staff from the broadest, most diverse pool possible.
- 2 Expand opportunities for professional and personal development and career progression.
- 3 Streamline and facilitate ease of communication among students, faculty, staff, and administration.
- 4 Provide an environment of support for initiatives, formal and informal, that foster a respectful, inclusive, collegial, appreciative, and celebratory work and learning environment.

GOAL 2

Leverage our strengths as a multifaceted Faculty of professionals and professionals in training.

ACTIONS

- 1 Increase awareness and experience of the benefits of intercultural fluency between departments and schools.
- 2 Establish and articulate links between performance metrics and values-based actions, collaborative work, academic priorities, administrative effectiveness, and the budget framework.
- 3 Support collaboration within UBC Applied Science, and between UBC Applied Science and other UBC Faculties.

GOAL 3

Foster leaders and the capacity to lead within and beyond the University environment.

ACTIONS

- 1 Integrate leadership models, language, training, and opportunities into the student experience.
- 2 Use training, metrics, and incentives to develop and reward a culture of leadership within staff and faculty.
- 3 Promote an academic culture that supports the free and respectful exchange of ideas.

A FOCUSED RESEARCH ENTERPRISE

The Faculty of Applied Science defines and hones its exceptional research strengths, assumes global leadership, expands the boundaries of professional practice, and accelerates knowledge mobilization to benefit society.



Biomedical engineers develop solutions for people around the world.
Photo: Martin Dee



An Engineering faculty member helps deliver clean water to First Nations and rural communities. Photo: Martin Dee

The UBC Applied Science research enterprise helps drive the reputation of one of the top research-intensive universities in the world. It comprises both fundamental discovery and the relentless expansion of professional practice, and powers vital innovation in the arenas of productivity, safety, sustainability, health, and wellbeing.

A team endeavor, our research is part of a cycle of evolution that positions our teaching and learning at the leading edge of disciplinary knowledge. Faculty members collaborate across disciplines, while business, community, and governments work with us as partners. Our graduates carry new knowledge into the world, changing their professions in the process. New questions arise and the cycle advances.

Our role in society, the regard with which our individual professions are held, and the resultant responsibilities we bear demand now that we increase our global reach and our capacity to address society's grand challenges.

We affirm our strengths and promote external partnerships to develop emerging areas of excellence and to equip our researchers with state-of-the-art infrastructure and tools. We recognize the value in each member's differing contribution and provide a culture in which we all may push the boundaries of what's possible. We streamline our knowledge-mobilization mechanisms and expand the portal to greater engagement. Our research belongs to the community.

GOAL 1

Foster a culture that values and rewards research excellence and leadership.

ACTIONS

- 1 Provide practical, logistical, and financial support, training, mentorship, and incentives for the pursuit of high-risk and large-scale strategic research activities.
- 2 Attract, recruit, and retain the best graduate students and post-doctoral fellows.
- 3 Develop a hiring and promotion process that consults, engages, and integrates the needs of research clusters, industry, and community stakeholders.
- 4 Measure, reward, and celebrate research and innovation excellence.

GOAL 2

Drive increased engagement with strategic research partners.

ACTIONS

- 1 Develop thematic, interdisciplinary research clusters aligned with industry, government, and community.
- 2 Develop Affiliate Programs that enable stakeholder engagement with research clusters.
- 3 Communicate research excellence and partnership ambitions; develop a marketing and communications strategy for each prospective partner, promoting benefits and means of engagement.
- 4 Support the creation and advancement of research partnerships with the best universities and research institutions around the world.

GOAL 3

Increase the speed and volume of knowledge mobilization and technology transfer.

ACTIONS

- 1 Foster and support entrepreneurial ambitions and skills in researchers.
- 2 Invest in key facilities and expertise that support globally leading innovation.

A DISTINCTIVE LEARNING ENVIRONMENT

The Faculty of Applied Science provides a superb student experience: outward facing, research driven, hands on, and grounded in core fundamentals, sustainability, and integrity.



Engineering students proudly wear their Iron Pins, symbols of their commitment to ethics and integrity. Photo: Mike Tian



Community and regional planners advance the transition to sustainability through integrated policy and planning research, professional education, and community service. Photo: Martin Dee

We design our learning culture to access the best of the professional world: hands-on, flexible learning modalities. Direct work experiences with real-world partners. Physical spaces—studios, labs, workshops, practice rooms—that spark vibrant interactions with colleagues and put leading-edge technologies directly into students' hands.

Students progress through programs as part of a cohort, teamed with people who will become colleagues and lasting friends. Senior students mentor those more junior, propelling a cycle of paying it forward. Faculty and staff are invigorated by students' excitement for learning. Engagement in research at all levels drives curriculum development, keeping courses at the forefront of what's known.

Our values-driven culture is the substrate for every interaction. Historical barriers to admission and academic advancement are eradicated. We find ourselves stronger for the change.

The learning matrix includes every experience, the line between curricular and co-curricular blurs, and classroom walls dissolve, revealing a template for lifelong learning. Service learning, international study, and professional development are the rule rather than the exception. Our graduates—our most immediate form of knowledge mobilization—hit the ground running.

GOAL 1

Create an open learning culture that develops leadership, creativity, and professionalism.

ACTIONS

- 1 Create an integrated learning culture built on our world-class strengths in research and education.
- 2 Foster an inclusive and diverse learning community.
- 3 Nurture, model, and uphold high ethical standards.

GOAL 2

Deliver a globally competitive undergraduate student experience.

ACTIONS

- 1 Recruit exceptional students from diverse backgrounds, and attract under-represented groups through targeted, community-relevant outreach and programming.
- 2 Provide an integrated educational experience that links across programs and years and extends our impact from K-12 through to lifelong learning.
- 3 Ensure that all students engage in professional development activities.
- 4 Facilitate and support international mobility.

GOAL 3

Provide internationally renowned graduate education that produces outstanding scholars and professionals.

ACTIONS

- 1 Attract the best graduate students from around the world.
- 2 Provide outstanding opportunities, facilities, and support for graduate student research.
- 3 Expand professional graduate education and industry engagement opportunities.

AN ENGAGED COMMUNITY

The Faculty of Applied Science partners with its communities to advance the wellbeing of society by addressing social, economic, cultural, and ecological challenges.



Alumni from the CHEM ENG Class of '64 reconnect at UBC.
Photo: William Gallego (BASC '12)



Architects and landscape architects use visualization tools to orchestrate the social, cultural, political, technical, and artistic relationships of people to the built environment and the land. Photo: Martin Dee

A university is a legacy each generation leaves for the next. How we transform it—and are ourselves transformed by it—determines our collective capacity to leave the world a better place than we found it.

With multiple sites and a global reach, UBC Applied Science is both a part of the social and economic landscape and a driver of change. Our activities shape the way science meets societal needs, and our community engagement enables us to be of service in every arena. Accordingly, we build connections with one another to strengthen our culture; we offer leadership wherever our expertise allows and become a destination for leaders; and we act with conscious attention to our community's impact on people and on the planet.

We are a portal for engagement with community, industry, and government. In partnership with colleagues across campus, we position UBC at the head of a world-class innovation district and speed the mobilization of new knowledge to society. We take up this challenge knowing that we share a common vision and an uncommon bond, and that together we are building a legacy worthy of the next generation.

GOAL 1

Cultivate lifelong relationships that more strongly connect Faculty with alumni, friends, industry partners, and the Province.

ACTIONS

- 1 Foster meaningful engagement with alumni and friends.
- 2 Identify and address challenges to engagement faced by the external community.
- 3 Build public awareness of societal issues that we are uniquely positioned to address.

GOAL 2

Be a driving force in British Columbia's social and economic ecosystem.

ACTIONS

- 1 Position UBC Applied Science as a vital partner and dynamic leader in solutions-based societal change.
- 2 Advance research and education partnerships for the benefit of our communities and professions.
- 3 Be a leader in providing a safe and respectful environment for difficult conversations about issues relating to our disciplines.

GOAL 3

Become a world-class innovation hub for partnership with private- and public-sector organizations.

ACTIONS

- 1 Lead by example in the creation of innovation hubs at UBC that become connecting points for our communities.
- 2 In collaboration with government, industry, academic partners, and alumni, work to diversify and expand the engineering, health, architecture, and planning sectors in British Columbia.



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Faculty of Applied Science



Engage online at strategicplan.apsc.ubc.ca

UBC Applied Science extends its gratitude to all of the students, staff, faculty, and alumni, commitment-specific consultation teams, and members of the Dean's Advisory Council who contributed their time and expertise to this plan.

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