Advancing Science 2017-2018

Proposed Renewed Strategic Foci, UBC Faculty of Science

THE UNIVERSITY OF BRITISH COLUMBIA

Faculty of Science

Advancing Science: 2017-2018 Proposed Renewed Strategic Foci, UBC Faculty of Science

Advancing Science: 2017-2018 is designed to guide the Faculty's collective efforts over the next two years, as well as help shape UBC's emerging strategic plan. It focuses on four key initiatives – research excellence, teaching excellence, computer and data science, and innovation – while also continuing to renew and build on the nine core areas and commitments originally articulated in Advancing Science 2011.

Our vision

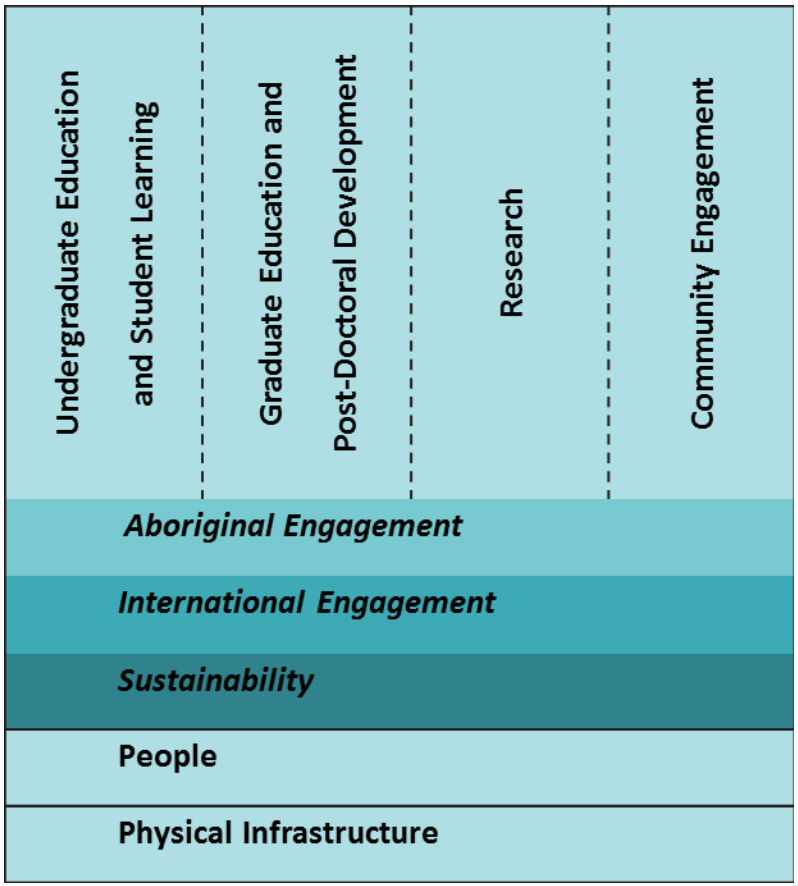
Within the next decade, UBC Science will be the top science faculty in Canada, recognized for our disciplinary and multidisciplinary research excellence and for our world-leading, evidence-based undergraduate science education.

Our pillars

Core focus areas

Cross-cutting initiatives

Foundations



Increase UBC Science's research excellence

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- Provide support (e.g., grant facilitation) for outstanding research groups and individual faculty to increase success in major research funding competitions (e.g., CFREF, CERC, NCE, SNG, CREATE)
- Identify and support existing and emerging areas of research excellence through FLARE research cluster initiative
- Grow UBC's Data Science Institute (launched July 2016) and other multidisciplinary research initiatives, including environmental sustainability
- Increase international research partnerships (e.g., QMI – Max Planck – Tokyo)
- Develop sustainable operating support for shared research facilities (e.g., Sequencing and Bioinformatics Consortium, Bioimaging)

Advance evidence-based approaches to science education

Advance our evidence-based approaches to undergraduate science education

- Integrate CWSEI initiatives and science education specialists into Skylight (Science's Centre for Learning and Teaching - https://sclt.science.ubc.ca/about)
- Incorporate active learning techniques into all large Science classes
- Articulate BSc and specialization learning outcomes (e.g., computing skills) and ensure graduates can effectively communicate their scientific knowledge and skills
- Explore mechanisms to provide additional research opportunities for BSc students
- Further explore teaching and learning opportunities for UBC students presented by e-learning
- Publicize our collective science teaching and learning efforts

Meet increased demand for computer and data science

Meet increased student demand for computer science and data science by expanding our courses and programs

- Aggressively recruit outstanding faculty in Computer Science and data science (e.g., Computer Science, Statistics, Mathematics, Bioinformatics)
- Grow professional Master of Data Science program (launched Sept 2016) and develop applied MDS pillars.
- Grow new Computational Thinking course (piloted Fall 2016)
- Develop new Software Engineering program jointly with Applied Science
- Support data science and computational methods education and research in all Science programs

Help position UBC at the centre of innovation ecosystems

Help position UBC at the centre of local and regional innovation ecosystems

- Grow UBC Science's co-op, graduate internships, and other work-integrated learning programs to prepare our students for a wide range of careers
- Increase Science participation in e@UBC, HATCH, and CDL-West
- Partner with the VPR and other UBC Faculties, UW, SFU on regional innovation initiatives such as the Cascadia Innovation Corridor
- Increase local, regional and national industry grants and contracts
- Grow UBC Science's visibility and brand as a valuable research authority and resource on appropriate local, provincial, national stages.

Reaffirm our commitment and efforts to:

Reaffirm our commitment and efforts to:

- Increase our success at recruiting and retaining the very best faculty (including diversity, housing, and dual career initiatives), post-doctoral fellows, graduate students, undergraduate students, and staff
- Actively promote faculty, students, and staff for national and international awards
- Enhance our ability to provide comprehensive student advising and career support
- Renew / replace our aging physical infrastructure, with a particular emphasis on new buildings to house Mathematics and Chemistry's teaching labs
- Increase our engagement with the public through our community venues
- Increase the diversity and well being of our faculty, staff, and students
- Ensure the long-term financial health and sustainability of our Faculty and Departments

science.ubc.ca/about/plan

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