

DISCOVERY BEGINS HERE

The Faculty of Science Strategic Plan 2021-25

ALL OUR RELATIONS

This document outlines the Faculty of Science's approaches to achieving the objectives of the University of Regina Strategic Plan 2020-2025, kahkiyaw kiwâhkômâkaninawak, All Our Relations.



University
of Regina



Faculty of
Science

Approved November 15, 2021
by Faculty of Science Council

VISION

To take advantage of our place on Treaty 4 lands in the heart of the Canadian prairies to become a leading contributor among comprehensive universities in impactful scientific discovery and transformative scientific education.

MISSION

To provide outstanding postsecondary education in Saskatchewan through impactful scientific discovery, excellence in teaching and research mentorship, preparing our students for engaging careers in all sectors of the economy, making notable positive impacts in our communities, leading the way in environmental stewardship and Indigenization, understanding the importance of our presence on Treaty 4 lands, and fostering an inclusive and diverse community of students, scholars, staff, and alumni.

VALUES

Excellence in Research and Scholarly Pursuits
High-Quality Teaching
Enthusiasm for Discovery
Cooperation and Collaboration
Inclusiveness
Reconciliation
Safety





DISCOVERY

STRENGTHEN OUR CONNECTIONS AMONG STUDENTS, FACULTY, AND STAFF

As highlighted in All Our Relations, discovery is where teaching and research meet, and forms the core of a university's mission. The research activities of our academic staff draw students into the excitement of science, thereby creating a fertile intellectual landscape in which discoveries germinate and grow. Thus, it is crucial that we be committed to recruiting top-tier faculty members—people who are passionate about discovery, understanding how it connects research and teaching, and show potential for long-lasting careers as scientists.

To drive our future strength in discovery, we are committed to filling academic-staff vacancies when they are created, recruiting Canada Research Chairs and other internal or external Chairs, and providing all academic staff with resources that will enhance their efforts in research, teaching, and undergraduate- and graduate-student supervision.

Our current and future faculty members will lead innovative changes to academic programs in response to emerging needs and interests. Already there are plans in place to rethink basic curricula (e.g., geology), revitalise activities in areas of interest that had become dormant (e.g., astronomy), and to repurpose our field resources to enhance research and experiential learning (e.g., Cypress Hills field station). In addition to these changes, new diplomas, certificates, and microcredentials will respond to student interests and increase participation in postsecondary studies.

Our two faculty-based institutes (the Institute of Environmental Change and Society and the Institute for Microbial Systems and Society) continue to be hubs of discovery for our faculty, students, and postdoctoral researchers in areas that are vital to the provincial environment and economy. Our memberships in the TRIUMF accelerator facility and the Pacific Institute for the Mathematical Sciences connect our community of scholars to a global network of talent and opportunity. We are committed to making investments that will assist our institutes and external partnerships in remaining vital and sustainable; they bring added value to our overall journey of discovery.

Promoting our strong foundation in discovery will allow us to attract students eager for a rich learning experience. The majority of the Faculty of Science's students are from Saskatchewan, but a significant portion of our undergraduate and graduate students are international. All of our students are essential to the impact of our work in discovery. As we emerge from the pandemic, the competition for excellent domestic and international students will be fierce. It will be crucial to continue recruiting good, upwardly mobile international students, and put new energy into attracting high-achieving domestic students.

TRUTH AND RECONCILIATION

STRENGTHEN CONNECTIONS WITH OUR PAST, PRESENT, AND FUTURE

Responding to the Truth and Reconciliation Commission's Calls to Action represents a defining moment for the Faculty of Science. Reconciliation is difficult; it is uncomfortable and demands an appreciation for issues (social, historical, cultural) that appear far outside the realm of Eurocentric science. Yet, our community of students, faculty, and alumni are keenly aware, perhaps now more than ever before, that we do not live, learn, or operate in a vacuum. In embracing our relationships with the land, its peoples, and the past, present, and future, the Faculty of Science has the opportunity to enhance the impact of its mission, create opportunities, reconcile with the past, and shape a better future.

To address the issues of reconciliation directly, Science will continue its annual Professional Development Day for Reconciliation, create opportunities for learning, and support and encourage efforts to bring Indigenous knowledge and ways of learning into the undergraduate and graduate curriculum, where appropriate.

Building on our modest beginnings toward reconciliation, a primary goal in 2021-25 will be to strengthen the relationships that we have developed with some key Indigenous educational leaders (e.g., in the Meadow Lake Tribal Council and the File Hills Qu'Appelle Tribal Council) and members of First Nations University. Through these relationships, the Faculty of Science will learn how we can better support Indigenous youth to increase their exposure to science in meaningful ways, establish a mentorship program between young people and Science faculty and alumni, grow an interest in STEM fields and careers, and enhance accessibility to postsecondary education. These initiatives will build on the work of the Let's Talk Science national network, of which the UofR and FNU together form a node, and from a recent NSERC Promo Science Grant to develop and offer science camps to youth in Saskatchewan Indigenous communities. We are also working with the Faculty's Development Officer (from University Advancement and Communication) on corporate sponsorship for these types of outreach activities, and on enhancing financial supports, in the form of bursaries, scholarly awards, and research opportunities, for Indigenous students in Science and Engineering.





WELL-BEING AND BELONGING

STRENGTHEN CONNECTIONS WITH OURSELVES

The Faculty of Science is composed of a diverse assortment of people; their cultural and socioeconomic backgrounds, prior learning experiences, and levels of support can be wide ranging. This diversity makes us richer, but with the size of the Faculty, it can be easy for people to feel alone or disconnected. As we move forward, we will promote the sense of community within the Faculty of Science, thereby supporting the overall well-being of our students, staff, and faculty.

Our postdoctoral fellows (PDFs) and research associates (RAs) are instrumental to our mission in discovery, yet they remain a largely anonymous, unrecognised group—and possibly underappreciated by some sectors of the University. Continuing to recognise the importance of their contributions through our annual PDF/RA Appreciation Social, highlighting their scientific work on our webpages and campus display cases, and ensuring that the Faculty of Science operates under fair and transparent processes with respect to recruitment, appointment, and employment of our research personnel will provide visibility and a positive working environment for this group.

We are fortunate to have a substantial non-academic workforce whose breadth of skills contribute to our overall success. Working closely with the Faculty Administrator and Coordinator of Science Operations,

we will continue to develop ways in which the needs and aspirations of our non-academic staff are heard and addressed, and enhance their connections with Science and each other.

Toward making the Faculty of Science a more inclusive environment for everyone, a new Associate Dean of Science position was created (and filled in October 2020) with equity, diversity, and inclusiveness as an area of leadership responsibility. Under the Associate Dean's leadership, progressive steps forward have been quietly made already; this work shall continue in the years ahead.

Racism and bias concern us all in the academy. It exists in a variety of forms, sometimes overtly but often subtly; and, even the most fair-minded person is not immune to unconscious bias. Many of our students and colleagues are all too familiar with the experience of exclusion caused by bias and racial discomfort. This leaves us all poorer, with too many voices unheard, too many faces unseen. In 2021-2025, the Science leadership will be active in engaging with the student body and our on-campus stakeholders to receive suggestions about concrete actions that we can take to create an inclusive safe environment for study and work.



ENVIRONMENT AND CLIMATE ACTION

STRENGTHEN CONNECTIONS WITH OUR ENVIRONMENT

Acknowledging our responsibilities to the community in which we reside, and to the people of this and future generations, the Faculty of Science must develop, embrace, and promote ecologically and economically sustainable practices. The Faculty of Science is particularly strong in environmental science, creating an embedded culture of environmental stewardship. The Faculty of Science was a catalyst for the establishment of an on-campus

recycling program two years ago; future focus will be on reducing the amount of waste we produce (including recyclable waste), adopting reusable products, where possible, in our daily practices and work. Promoting environmental research and reducing our energy consumption are two ways in which the Faculty of Science will strive further to address climate and environment.





IMPACT AND IDENTITY

STRENGTHEN CONNECTIONS WITH COMMUNITIES

Before we can have a positive impact on the world around us, we must build a strong community within Science. A few years ago, the Faculty of Science took important steps in forging a strong identity by creating a new logo. Production and distribution of Faculty of Science / University of Regina branded accessories promoted a sense of belonging for our faculty, staff, students, and alumni. An immediate priority is to revise the Faculty of Science webpages to modern standards, aligning with changes the University of Regina is making to its own website, promoting inclusivity, and ensuring the visual images on our webpages are representative of our diversity. Most importantly, the Science webpage will capture a sense of our Vision, enticing visitors to explore the activities, programs, and people of the Faculty of Science, and to convey the excitement that we all feel from discovery and learning.

Our confidence in who we are and all that we have to offer will give us a means of attracting top students and faculty. A fully engaged and strong Faculty of Science at the University of Regina can celebrate its place in the Canadian postsecondary landscape, and make greater strategic use of the University's unique geographical setting at the heart of the Canadian prairies, operating on Treaty 4 and Treaty 6 lands. The impact of a relatively small community of scientists and science educators on a widely dispersed population cannot be underestimated. We have a passion for discovery, teaching, and community connection that sets us apart from the rest. We know who we are; we must ensure others know too.



SPECIFIC TARGETS AND GOALS

IMPLEMENTATION FRAMEWORK

Discovery

- Initiate discussions imagining the future of the University and Faculty in 2030-2035
 - o What infrastructure do we require for experiential learning and research?
 - o What infrastructure do we require for teaching and learning, on-campus and remotely?
- Review academic programs to ensure currency and the capacity to deliver
- Develop a mentorship program in each department, partnering graduate students with undergraduates
- Create microcredentials that allow focus on particular areas of interest
- Actively recruit students to our 2+2 programs with Sask Polytechnic
- Encourage and facilitate research that crosses disciplines
- Adopt processes that maintain and grow our Tri-Council funding
- Continue to seek opportunities for externally funded research chairs (Fedoruk Chair, SaskPower Chair in AI) and external partners for academic programs (e.g., actuarial science, data science)

Truth and Reconciliation

- Continue to offer yearly professional development days on Truth and Reconciliation
- Encourage more collaboration with FNUUniv to partner our female Indigenous and non-Indigenous students in the SINEWS program
- Contribute more educational activities in the Treaty 4 Gathering
- Build on what we learned from the first Science Camps for Saskatchewan Indigenous Youth offering to reach additional communities
- Develop yearly activities for Faculty of Science members to participate in on the National Day for Truth and Reconciliation: September 30th
- Create a resource library in the Faculty for materials on weaving Indigenous teachings into Science courses
- Form a “call to action a month” lunch and learn group, where participants can discuss each of the 94 calls to action
- Add courses in Indigenous Knowledge/Studies (e.g., INDG 100 and ENV5 100) to the list of recommended electives for all Science programs
- Actively promote the Minor in Indigenous Knowledge and Science to our own students, along with students across campus



Well-being and Belonging

- Create learning opportunities for faculty and staff to promote education on EDI issues
- Engage with and support departmental student clubs to create sense of community
- Celebrate Science related days in addition to Pi Day to allow people to celebrate being in Science
- Showcase Postdoctoral fellows in the display cases
- Host a brainstorming session with science students, asking them to share their solutions for combating racism and bias in the classroom
- Create templates and common procedures that have common, respectful language for instructors to use
- Emphasize the importance of mental health

Environment and Climate Action

- Develop community based science programs to engage the public in environmental improvement related studies
- Encourage academic staff to use printless materials in their lectures and labs
- Encourage the continuation of practices developed during the pandemic, such as remote collaboration and conference participation, to reduce our collective carbon footprint
- Organize a clothing swap for undergraduate students
- Offer academic staff members LED lights for their offices

Impact and Identity

- Be more visible at community events
 - Participate in Agribition
 - Join in Canada Day Celebrations on July 1
 - Encourage Faculty of Science members to join in FNUniversity's PowWow at Evraz Place
- Promote departmental talks with zoom links to allow attendance from the public
- Explore potential showcasing of research at the Science Centre
- Increase recognitions of students, staff, and faculty
- Grow our social media following
- Use the new website as a conduit for identity reinforcement and impact promotion
- Take greater advantage of testimonials from students and alumni
- Build on Science's branded materials so our visual presence is larger (stickers, water bottles, mugs, toques, etc.)





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