



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Faculty of Science Strategic Priorities 2022-2025





The University of Queensland (UQ) acknowledges the Traditional Owners and their custodianship of the lands on which we meet. We pay our respects to their Ancestors and their descendants, who continue cultural and spiritual connections to Country. We recognise their valuable contributions to Australian and global society.

Professor Melissa Brown
Executive Dean Faculty of Science

Message from the Executive Dean

As we have come to the end of the [UQ Faculty of Science Strategic Plan 2018-2021](#), it is timely to reflect on what we have achieved and to plan for the future.

I am delighted to share some of our many achievements over the past four years. Together, we have enabled the successes of individual students and staff at local, national and international levels. Our graduates who were honoured with distinctions and awards have gone on to great careers, and our staff have won prestigious fellowships, research grants and national teaching awards.

We've had many team successes too, including enhancing the student experience, facilitating research excellence and impact, enabling community engagement, and growing our revenue.





A snapshot of achievements from the 2018–2021 Plan

Teaching and learning

Teams from across the Faculty of Science have significantly enhanced student experience and student engagement by establishing well-attended leadership, mentoring and career development programs, along with regular activities and communications for our coursework students.

Fantastic new learning spaces have been created, including computer laboratories and collaborative learning spaces in Building 69 and Priestley Building. We have also optimised our curriculum through an intensive implementation of Program Architecture 2, and digitised hundreds of courses, either through the UQ2U program or via the warp-speed response to COVID-19.

To improve access to UQ for students from underrepresented groups, we established the UQ Future Scientist Scholarship scheme, which has provided financial support to a number of students studying science each year.

These successes are just the beginning for us. Enabling student access and retention, and further curriculum optimisation with a particular focus on reducing duplication, are key to our 2022 – 2025 Strategic Plan.



Research and innovation

Our amazing research teams have attracted funding from diverse sources to support large-scale research programs. They have also delivered globally significant impact and made a significant contribution to UQ's top 10 global subject rankings in agriculture, biotechnology and environmental science.

Teams across the Faculty of Science have also driven a significant uplift in industry partnered and funded research, through establishing schemes to provide seed funding and training opportunities. We have also established a career mentoring program for our Early and Mid-Career Academics (EMCAs).

New spaces have been created to support our mathematicians, PC3 infectious disease researchers, crop scientists, the ARC Centre of Excellence for Engineered Quantum Systems and the ARC Centre of Excellence for Plant Success in Nature and Agriculture.

We have also established a formal partnership with the Quandamooka Yoolooburrabee Aboriginal Corporation (QYAC), to facilitate research activities and collaborations on Minjerribah (North Stradbroke Island).

Academic leaders have been appointed and developed plans to enhance the research opportunities at Gatton campus and our three research stations – Moreton Bay, Heron Island and Hidden Vale.

Despite significant efforts, much of our research infrastructure requires significant attention, refurbishment or replacement. The decline in student revenue has paused many projects designed to address this. This continues to be a high priority for 2022 – 2025.





Staff recruitment, retention and diversity

Through improved recruitment processes, targeted recruitment activities (women-only and Indigenous-only), promotion support and guidance, mentoring programs, awards and role models, we have improved the representation of women in our academic staff and Indigenous people in our academic and professional staff.

While these are great outcomes, we are still at the beginning of a long journey to achieve a workforce profile with a better representation of women and Indigenous people at all academic levels. This will be a priority in the new plan.



Business development

Partnerships have been established or strengthened with multiple secondary schools across Queensland to build our brand with prospective students. This includes amazing outreach programs and an expanded Teacher Continuing Professional Development (CPD) Program, which now delivers to over 2000 secondary school teachers a year and was recognised by a Peter Doherty Award in 2021.

Partnerships across Asia have allowed us to establish 21 new international articulation programs, which are significantly increasing our international student enrolments.

We have also established an Advancement function which, through strong engagement with alumni, has resulted in the new Science Connect Mentoring Program and enabled and managed some very significant philanthropic donations.

There is more work to do in diversifying research income and expanding our advancement activities, which are captured in our new plan.

Thank you to the many, many people who have contributed to these impressive achievements and outcomes.

I am now delighted to share our Strategic priorities for 2022-2025. This is the Faculty of Science plan for delivering on UQ's 2022-2025 Strategic plan and shorter-term goals as articulated in UQ's Plan on a Page.

This document aims to articulate how we will contribute to the University's plans through areas and opportunities of particular relevance to the Faculty of Science.

Professor Melissa Brown
Executive Dean
Faculty of Science



Consultation

Faculty of Science Board Meeting, November 2021

Feedback from 'breakout room' session

- Diversify our postgraduate coursework offerings
- Manage teaching workloads/support for dual-mode delivery of teaching
- Develop activities to improve student engagement
- Facilitate research collaboration across the Faculty of Science and beyond
- Better communicate the impact of our research
- Career development opportunities for EMCAs
- Improve workplace culture.

Faculty of Science Executive Leadership Retreat, December 2021

Key themes

- Student access and retention
- Student engagement
- Teaching partnerships that benefit students and employers
- Research partnerships that align with government priorities and enhance translation
- Communicating the societal benefit of our research
- Preparing Higher Degree Research students (HDRs) and EMCAs for a range of careers
- Staff workload
- Staff diversity
- Workplace culture
- Infrastructure solutions.

Our shared vision for 2025

By 2025, the UQ Faculty of Science will:

- Enrol, engage and retain more low SES, Indigenous, regional and remote students.
- Provide a better and broader experience for coursework and research students and better outcomes for graduates.
- Establish and engage in more teaching partnerships and more flexible learning options, supported by higher quality resources for digital delivery.
- Lead, or contribute to, more advances in research translation, supported by effective research partnerships and a diverse portfolio of funding.
- Grow recognition of the societal benefits of our research and teaching.
- Have a workforce that is more diverse, has more opportunities for career development at all levels, and has a more positive workplace culture.
- Deliver on the relevant elements of the UQ Reconciliation Action Plan.
- Operate in infrastructure that better enables our research, teaching and alumni engagement.





Research and innovation

Research discovery and translation

Celebrate excellence in our discovery research and facilitate collaborations between discovery and applied researchers to enable and bolster early-phase translation pipelines.

Industry partnerships

Establish new and deepen existing partnerships with industry, that will position teams to have an impact in modern manufacturing priority areas for the Faculty of Science, including food and beverage, medical products, defence and space.

Government partnerships

Expand our existing partnerships with the government entities to increase staff secondments to UQ undertaking research in scientific areas of importance to Queensland.

Research commercialisation

Engage with the opportunities associated with the University Commercialisation Action Plan, including engaging in programmatic funding opportunities and attracting high-quality applicants for nationally competitive industry PhDs and fellowships.

Early-career mentoring

Further develop the capabilities and leadership of our HDR students and early career researchers through a range of experiences and support programs, and expansion of the Faculty of Science EMCA mentoring program.

Enriching our communities

Targeted scholarships for future students

Expand our scholarship offerings to enable broader access to science education for low SES, Indigenous, regional and remote students.

Explore a specific scholarship for Indigenous students to enrol in a Bachelor of Science/Education (Secondary) or Bachelor of Mathematics/Education (Secondary). Explore similar opportunities for the proposed Bachelor of Agricultural Science. Engage in the 'Queensland commitment' to facilitate this.

Indigenous engagement

Proactively contribute to delivering on UQ's Reconciliation Action Plan, with a focus on student and staff recruitment, retention and success, embedding Indigenous knowledge in our Faculty of Science teaching and research, and enabling the intent of our memorandum of understanding (MOU) with the Quandamooka Yoolooburabee Aboriginal Corporation (QYAC).

Share the societal benefit of our research

Develop and implement a communication strategy that better celebrates the societal benefit of our research (including discovery research) and teaching.

Our global profile

Strategic international partnerships

Develop effective relationships with strategic international university partners that enhance opportunities for Faculty of Science student learning, graduate employment, research and international development. For example, QUEX Joint Masters in Global Environmental Futures, IIT-Delhi (e.g., in agricultural technology), and strategic partnerships with universities in the Pacific.





Our people

Workplace culture

Improve workplace culture across Faculty of Science, through a comprehensive, proactive, inclusive and consultative response to the UQ Pulse Survey, with a focus on better managing staff workloads and consulting with and listening to staff.

Staff diversity

Take a more proactive approach to staff diversity in the Faculty of Science, by improving the appointment, retention, promotion, and executive leadership experience of staff from underrepresented cohorts.

Each School to set their own targets for women and Indigenous staff (including trainees) representation.

Strategies for achieving this may include (but are not limited to):

- Embedding women-only and Indigenous-only as 'business as usual' in our academic recruitment process.
- Ensuring that the culture of the workplace is welcoming, inclusive and safe for staff from diverse backgrounds.
- Access to Faculty and University promotion mentoring programs.
- Appropriate support and guidance for staff and students who are returning to work after a significant period of leave (e.g. associated with caring responsibilities).

Workloads

Better manage workloads through appropriately balancing the proportion of teaching, research and industry academics and professional roles (e.g. learning designers). Each School to determine the minimum teaching FTE to deliver on their teaching commitments and ensure manageable and equitable staff workload, and build this into staff planning.

Staff development

Increase opportunities for staff development through greater access to a range of new UQ professional development activities and programs, including those scheduled to become available in 2022 for academic, professional and executive staff.

Securing our future

Diversify income sources

Develop new programs and professional development products for which there is a strong demand. Diversify sources of income to support research with a greater focus on Category 2 and Category 3 research income.

Philanthropy

Foster mutually beneficial relationships with key stakeholders (alumni, industry, key influencers, students, staff and the broader community) supported by best practice business systems, to attract significant and sustained financial philanthropic investment for learning, discovery and engagement priorities.

Infrastructure development

Continue to advocate for fit-for-purpose infrastructure to support Faculty of Science teaching and research activities and aspirations, on all our campuses and research stations.

Gatton campus development

Continue to develop the Gatton campus as a hub for industry engaged training, teaching, research and research training in science.



Enabling our vision



We will

- Prioritise resourcing for disciplines and sub-disciplines with strong research performance, strong student demand, areas of growth, and/or emerging priority areas.
- Reduce first-year courses and transition to common first year/first semester offerings where practical (e.g., for Gatton programs) and, in partnership with other Faculties, extrapolate this across all programs in which Faculty of Science Schools contribute.
- Ensure that our disciplines are distributed in a way to optimise teaching efficiency and research collaboration.
- Review and improve operating procedures and establish communities of practice in and beyond the Faculty of Science to reduce 'red tape', and ensure services are accessible at the appropriate part of the organisation.
- Pursue priority construction and refurbishment projects, including planning for the Science Precinct 2.0.
- Optimise the governance, operations and sustainability of our research facilities. Be respectfully and constructively authentic, honest and courageous in meetings and conversations.
- Build a culture that promotes and models good behaviour and does not tolerate poor behaviours and poor citizenship.



We won't

- Support existing, and requests for new, programs with low student demand or low employment outcomes.
- Enable teaching inefficiency by supporting curriculum duplication, EFTSL wars, excess assessment, or a curriculum that is disproportionately focused on School and staff priorities rather than the needs of students.