

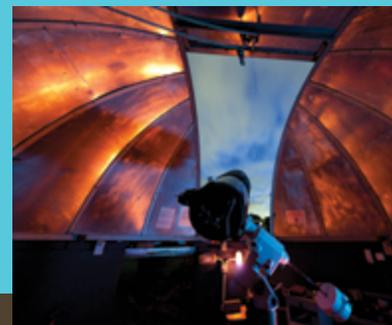


Ollscoil Chathair
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Dublin City University



Faculty Strategic Plan Science and Health

Strategy Statement
2018 - 2022



Introduction

“In tackling the challenges of an era of unprecedented change, we see unprecedented opportunities: not only to transform the lives of those who pass through our doors, but also, through them and through our innovation, to transform society as a whole”

Talent, Discovery, and Transformation, DCU Strategic Plan, 2017-2022

The Faculty of Science and Health (FSH) is a large and diverse faculty of six schools: School of Nursing and Human Sciences, School of Health and Human Performance, School of Chemical Sciences, School of Biotechnology, School of Physical Sciences, School of Mathematical Sciences, and a range of associated research groups and centres. The Faculty has three national research centres:

- National Centre for Plasma, Science and Technology (NCPST)
- National Centre for Sensor Research (NCSR)
- National Institute for Cellular Biotechnology (NICB)

The Faculty is also home to two international research centres: the **Fraunhofer Project Centre (FPC@DCU)** and the **International Centre for Neuro-Therapeutics (ICNT)**, as well as the **Nano-Bioanalytical Research Facility (NRF)**, the **Centre for the Advancement of STEM Teaching and Learning (CASTeL)**, the **Water Institute**, the **Centre for Astrophysics and Relativity (C-fAR)**, and the **Centre for e-Integrated Care (CeIC)**.

Together the schools and Centres provide a unique set of synergies to advance education and research in science and health and to support DCU to pursue its goals to transform lives and society. The Faculty is responsible for 23 undergraduate and 16 postgraduate taught programmes, 3,317 undergraduate students, 270 postgraduate taught students, 212 postgraduate research students, 121 post-doctoral researchers and research staff, 171 academics, 61 administrative staff, and 31 technical staff. Staff in the Faculty have strong links to industry and also work closely with a

range of community, health, and education organisations within the local community. The Faculty is home to **MedEx Wellness** – a novel community-based chronic illness rehabilitation programme; and the **Healthy Living Centre** – a community healthcare provider that provides a live healthcare and well-being focus for the Faculty.

Our Mission

To foster and deliver education, research, and professional and practice development in science and health that is of national and international significance.

Our Values

- Excellence in teaching and research
- Ambition
- Professional responsibility and integrity
- The sustainable and responsible use of available resources
- Open, transparent, and accountable systems

The Context

Recent Government policies¹ identify a range of goals for the university sector in Ireland. These include:

- Improving the learning experience and success of learners; improving the progress of learners at risk of educational disadvantage or learners with special education needs; continuous improvement of the quality of teaching and learning
- Ensuring world-class postgraduate researcher education and increasing the enrolment of postgraduate research students to address demand in the economy; enhancing the support for post-doctoral researchers and researcher

career development; addressing gender issues related to career progression; increasing the number of international students studying in Ireland

- Instituting new funding for frontier research and attracting internationally recognised researchers; developing Ireland as an attractive location for mobile, globally renowned researchers; attracting outstanding researchers, building research capacity, and commercialisation of research; ensuring a strategic approach to the development of new and existing infrastructure programmes
- Enhancing researcher mobility between academia and industry; building stronger bridges between education providers and the wider community
- Increasing the focus of education programmes on providing the skills and opportunities that are relevant to the needs of learners, society and the economy, innovation and entrepreneurship skills, and that support participation in the labour market; equipping Irish learners with the skills and expertise to compete internationally; increasing participation in lifelong learning.

These strategies and policies come on the back of a range of challenges facing the university sector, largely as a result of the very substantial financial cutbacks in the sector in the decade to 2018. Over that time, exchequer funding was cut by 40% resulting in the accumulation of significant structural deficits, while over the same period student numbers grew by close to 30% across the sector.² Student numbers at DCU grew by 64% between 2010 and 2018 to 16,991. Looking to the future, it is anticipated

that the number of students accessing third-level education in Ireland will grow by a further 40,000 by 2030 due to population growth. Student numbers are also likely to grow due to Government policies to broaden access to third-level education and to increase places for post-graduate, lifelong learning, and continuing professional development programmes, and from increasing interest from international students and staff.³

DCU launched its strategic plan **Talent, Discovery, and Transformation** in September 2017. This provides a five-year road map for how the University will deliver on its promises to students, staff and society. It identifies nine strategic goals to be pursued over that time and is supported by five constituent strategies for research and innovation, teaching and learning, the student experience, internationalisation, and engagement. This Strategy Statement for the Faculty of Science and Health sets out a plan to best position the Faculty to grow and develop over the next four years to complement and contribute to these overarching strategies.

DCU Mission

To transform lives and societies through education, research, innovation, and engagement

DCU Culture and Values

We foster a culture that is:
open, collegial, collaborative, student-focussed, and ambitious

We are committed to:
Equality, Educational opportunity, Social justice, Ethical behaviour,
Academic freedom

DCU Vision

DCU will be a globally-significant University of Transformation and Enterprise that is renowned for: the development of talent, the discovery and translation of knowledge to advance society, its focus on creativity and innovation, the advancement and application of technology, and its commitment to sustainability

**Faculty Vision:**

The Faculty of Science and Health will be recognised internationally as a centre of excellence for innovation and transformation in science and health

Our Strategy (2018 - 2022)

By 2022, the Faculty of Science and Health will be recognised nationally and internationally for excellence in research and education, innovation, and the contribution of its staff and students to solving problems that impact profoundly on individuals and societies. We will achieve this through a range of approaches including:

- Focusing on academic and research excellence and world-class teaching and research facilities
- Promoting an inclusive, proactive and evidence-based approach to planning and implementation
- Fostering collaboration between schools and research centres and across the health and STEM disciplines
- Effectively exploiting new and emerging education technologies and flexible delivery modes
- Building strategic local, national, and international industry and clinical partnerships
- Developing an international outlook, culture, and community
- Valuing our staff, and nurturing and empowering leaders in our disciplines, schools, and research centres

Strategic Priorities

In addition to fully supporting the nine strategic goals outlined for DCU, the Faculty of Science and Health has three key strategic priorities for 2018-2022:

Research: We recognise the critical role of research in the academic mission and its role in discovery, innovation, the generation of new knowledge, and research translation. This is particularly relevant in science and health where knowledge and understanding are evolving rapidly. We aim to be recognised nationally and internationally as a research-intensive leader in niche areas of science and health. We recognise the increasing importance of multidisciplinary research to tackle important research questions and aim to make the most of the many synergies within and between the range of disciplines in the Faculty, while working with other schools, centres and faculties at DCU, and with national and international partners. We will renew our focus on research in a way that builds on the strengths of research to date and research expertise across the Faculty, while building research capacity around emerging synergies and supporting new areas to develop organically. We will focus on the impact of our research: targeting key challenges for individuals and societies in the 21st century and that support the United Nations' Sustainable Development Goals; seeking to promote and capture the impact of our research. Our research renewal process begins with the establishment of a programme of research in partnership with Arizona State University in **Biodesign**, which will bring coherence to many of the Faculty's existing research themes and strengths. This process will work to progressively capture existing and emerging themes across the Faculty, and that reflect DCU's research priorities. Our strategic focus will include building a supportive research ecosystem, developing research leadership, and enhancing research outputs.

Teaching and Learning: We recognise the critical role that our schools play in the development of curricula and the delivery of education programmes that prepare our students to be experts in their fields, well-rounded individuals, and ready for the world of work. Our focus in education is on the relevance and quality of our programmes and the quality of the student experience. We aim to build on the successes of our undergraduate and doctoral programmes by developing a range of postgraduate programmes to suit the needs of our graduates over a career. Our focus will also be on the development of flexible modes of delivery to accommodate full-time and part-time students and remote learning.

External Engagement: We recognise the importance of our profile locally, nationally, and internationally. Staff in our schools and research centres work closely with partners in industry, education, healthcare, and local communities. We will continue to build strong links locally and nationally but with a particular focus on building our profile internationally. We will achieve this by extending our research collaborations internationally, extending our education offerings to international students, and increasing our engagement internationally through summer schools, study abroad offerings, Erasmus and international exchange, transnational education programmes, and developing a global perspective in all of our activities.

Alignment to DCU Strategic Themes Faculty Level Objectives

DCU Strategic Goal	Action	Success measured by end of Year 1
Provide a Transformative Student Experience	To complement the University-wide review of the curriculum and learning experience of students, conduct a review of undergraduate programmes in science and health to examine:	Review programme in place, key priorities outlined
	<ul style="list-style-type: none"> — Current validation status/history-programmes fit for purpose — Student attributes for science and health and how they are addressed through teaching and assessment — Student progression and attrition — Scope for external accreditation — Scope for new modes, e.g. 3+2, 4+1, 60 credit masters — Scope for new co-curricular activities — Capacity for growth and internationalisation 	<ul style="list-style-type: none"> Plan for development of new postgraduate offerings Proposal for model of postgraduate offerings Rolling plan to develop blended learning for modules and programmes Faculty plan agreed to support teaching and learning innovation
	Examine education pathways for students of science and health beyond UG degree:	Targets agreed for years 2 and 3
	<ul style="list-style-type: none"> — Prepare a new model for postgraduate taught education — Develop new delivery models that provide more flexible options for students, including step-on and step-off options and blended learning approaches 	
	Build capacity for teaching and learning innovation in the Faculty with a focus on excellence	

DCU Strategic Goal	Action	Success measured by end of Year 1
Advance our Reputation for World-class Research	Conduct a review of current research programmes to develop a model within the Faculty to support of research and innovation at various levels/scales, from individual-level to large scale clusters and to enable evolution of activities along this continuum. This review will include:	FSH vision for research and research strategy
	<ul style="list-style-type: none"> — Mapping of synergies and emerging themes — Identification of large scale research priorities — Coordinated efforts to win funding — Support for colleagues who wish to begin/renew research activities 	<ul style="list-style-type: none"> Research human capital and infrastructure plan Publication support scheme Marketing plan Targets agreed for years 2 and 3
	Review of research capacity within FSH, with particular attention to:	
	<ul style="list-style-type: none"> — Staffing — Research infrastructure — Links between research centres and schools — Researcher career development 	
	Develop a Faculty model to support a focus on research impact:	
	<ul style="list-style-type: none"> — Publication and communication of results — Citations, research translation, measures of impact, media attention — Integration of research findings and expertise into the curriculum 	
	Raise the profile of FSH's research strengths and impact:	
	<ul style="list-style-type: none"> — Media and marketing campaign — Internal recognition and celebration of successes 	
Sustain our Ambitions through Income Generation	Explore and develop transnational education opportunities	Plans agreed for increases in programmes and student numbers, additional activities (e.g. CPD, Springboard, transnational education)
	Support income generation through increases in postgraduate programmes and students, international students, professional development programmes, and summer schools	Targets agreed for years 2 and 3
	Develop a funding model and incentives to support the development of new initiatives	

DCU Strategic Goal	Action	Success measured by end of Year 1
Ensure a Coherent, Connected University	<p>Encourage networking and collaboration between schools, centres and disciplines in the FSH and with other faculties/schools through:</p> <ul style="list-style-type: none"> — Regular FSH 'open houses' — STEM working group to explore potential for collaboration with schools and centres in the Faculty of Engineering and Computing — Annual FSH celebration of achievements — Development/renewal/support of school level community events which foster staff/student interactions (both postgraduate and undergraduate) 	<p>Number of collaborative education programmes</p> <p>Number of collaborative grants</p> <p>Number of collaborative publications</p>
Value and Develop our Staff Community	<p>Review capacity within the FSH to support its strategic goals:</p> <ul style="list-style-type: none"> — Staff recruitment, retention, promotion, and development — Workload management — Leadership development and succession planning — Structures and processes 	<p>Preparation and implementation of plan to address issues identified</p>
Develop a Global University	<p>Appoint an Associate Dean for Internationalisation and External Engagement and establish a Faculty external engagement/internationalisation working group (similar to Faculty Research Committee/ Faculty Teaching Committee) - reporting to Faculty Management Board</p> <p>Review the current range of places available to international students on taught postgraduate, PhD, and undergraduate programmes across the faculty</p> <p>Develop a DCU Science and Health Summer School to be promoted to potential Irish and international students</p> <p>Promote international engagement, collaboration and opportunities for staff exchange between schools and research centres nationally and internationally, with an emphasis on DCU strategic partners</p> <p>Working with DCU's International Office:</p> <ul style="list-style-type: none"> — Develop a programme for international exchange for students across the Faculty — Explore the potential market for international students on each programme, and the demand for new programmes — Actively market programmes — Develop foundational pathways and supports for students as required in markets with particular potential — Develop a programme to prepare science and health students with the attributes required to engage as global citizens 	<p>External engagement and internationalisation plan</p> <p>Number of international students</p> <p>Income generated from international students</p> <p>Number of students engaged in summer schools and international exchanges</p> <p>Global experience survey of students</p> <p>Global citizen in science and health programme developed</p> <p>Targets agreed for years 2 and 3</p>

DCU Strategic Goal	Action	Success measured by end of Year 1
Nurture Creativity and Culture across the University	<p>Highlight the importance of science and health to creativity and culture, e.g. student art work/images of science</p>	<p>Annual exhibition of creativity and culture in science and health</p>
Place Sustainability at the Core of the University	<p>Examine the implications for sustainability within the FSH e.g., carbon-neutral, energy consumption, management of waste and research byproducts, financial sustainability</p> <p>Embed sustainability into the curriculum of science and health programmes</p> <p>Examine potential for FSH contribution to education and research programmes relating to sustainability</p>	<p>Approval of report and actions</p> <p>Targets agreed for years 2 and 3</p>
Pursue Active Engagement with our Communities	<p>Support engagement with local communities, industry and community organisations</p> <p>Conduct an inventory of initiatives across the Faculty and prepare a plan to enhance engagement</p> <p>Support North-South (cross-border) collaboration</p> <p>Actively contribute to discussions about science and health in relation to regional and national planning, e.g. the Eastern and Midland Spatial and Economic Strategy</p>	<p>Inventory of industry links and plan for industry engagement</p> <p>Alumni engagement plan</p> <p>Targets agreed for years 2 and 3</p>





[dcu.ie/science_and_health](https://www.dcu.ie/science_and_health)

