

University of Guelph Strategic Research Plan (2017-2022) Summary

The University of Guelph promotes time-honoured research strengths, while exploring new scholarly opportunities. We do so in an environment that promotes excellence, partnership, diversity, and inclusivity. We use our knowledge and discoveries in impactful ways to shape understanding and improve life.

From how we feed the world and preserve its nature, to how we live, interact, and thrive in our communities and businesses, we must continue to evolve. We must improve.

The University of Guelph and everyone who studies here, explores here, teaches here, and works here is committed to that simple purpose: To improve life.

Our pursuit of research excellence is uniquely tied to the betterment of society. As part of the University of Guelph's mission and history, we are committed to mobilise knowledge into action. Unconstrained by traditional barriers and boundaries, we formulate scholarly questions and seek answers that are effective in catalysing discovery and change. Our research agenda is firmly grounded in our partnerships with communities and the private sector, and the work we do responds to our partners' needs. When applied, our research solves real problems, and results in meaningful advances in innovation, employment and the economy.

In November 2016 and February 2017, workshops were held on campus to give faculty, staff and students an opportunity to shape key components of the 2017-2022 Strategic Research Plan, and its linkage to the University's Strategic Framework. The objectives of the November workshop were to reflect on the research-related feedback from the University's broader Strategic Renewal Process, and to provide guidance for the development of key components of the Strategic Research Plan. The February workshop was designed to provide guidance for the development of key components of the Strategic Research Plan, including themes and signature areas. More than 100 people participated in these workshops, from all seven colleges. The result of their collective input is the University of Guelph 2017 – 2022 Strategic Research Plan.



IMPROVE LIFE.

Principles

Guiding principles speak to broad directions and areas of focus. Our principles are: Promoting Research Excellence; Connecting our research with the world; Catalysing and stewarding research partnerships; Enhancing research culture; Building a supportive research environment.

Priority areas for research and research training

Our close connection with government agencies and the private sector – especially in health, agriculture and food – is a differentiator at the University of Guelph. New themes of scholarly excellence have emerged since our inception as a comprehensive university in 1964. These reflect opportunities afforded by the full breadth of our research and teaching. We will continue to explore challenging and complex questions such as how to provide food for the world, and assess climate change impacts and adaptation strategies. We will persist in examining complex matters such as the effects of policies on human prosperity and well-being; how arts and culture enhance quality of life; and the interconnections between human and animal health.

Six themes capture the comprehensive areas of research at the University of Guelph, and eight signature areas differentiate the university's areas of research focus from those of other universities. Over the next five years, the University will enhance its research and training capacity across these themes and signature areas, enabling multi-disciplinary, collaborative approaches to tackle the complex problems of our interconnected world.

THEMES	
1. Fundamental Science and its Application	We build understanding of the continuum between curiosity-driven, discovery-based exploration of the properties of the universe and living systems on one hand, and the application of that knowledge and wisdom to real-world problems on the other.
2. Cultural Inquiry and Creative Practice	We leverage deep inquiry and diverse material practices through scholarly and artistic processes to discover, analyse, and contextualise an extensive range of topics from literature, history, philosophy, and culture.
3. Social and Economic Welfare	We examine organizational structures, institutions, and operational practices within communities, economies, and societies to understand how they function, and to provide insights into how they contribute to social justice and/or economic wellbeing.
4. Animal and Human Health and Wellbeing	We create a deeper understanding of the parameters that shape the health and wellbeing of diverse organisms, with a lens that extends from the molecular level to that of populations and whole ecosystems.
5. Agriculture, Food, and the Bio-economy	We generate knowledge focused on agriculture, food, and bio-products that transforms understanding, practice, and policy to promote safe, sustainable, secure food systems and a vigorous bio-economy
6. The Environment	We explore our planet's environment and climate, as well as their interplay with living and/or technological systems, as a fundamental underpinning for environmental stewardship and sustainability.

Signature Areas

1. Food	Food research extends from the fundamental chemistry of foodstuffs to the private and public decisions that impact food production, food safety, food distribution, and the business of food; ultimately to study the impact on ecosystems, the economy, and society.
2. Agriculture and the Bio-economy	The University leads in precision agriculture, and the sustainable production of healthy crops, livestock, and diverse bio-products. Through our partnership with Ontario Ministry of Agriculture, Food and Rural Affairs, the University has an outstanding platform to conduct research with real-world application.
3. Veterinary Medicine	Veterinary medicine at the University covers the continuum from molecular and cellular processes to whole animal health and welfare to population medicine, with unique strengths in comparative medicine.
4. One Health	One Health is an interdisciplinary framework focused on the complex interconnectedness between human, animal, and environmental health and welfare. Within One Health, University researchers work across disciplines and sectors to interrogate the biological and social factors that impinge on the health of organisms, from the level of molecules to that of ecosystems.

5. Environmental Stewardship and Biodiversity	Research into biodiversity, ecology, and the environment are core areas of distinction for the University of Guelph. The University places particular emphasis on soil, water, and air quality, providing a strong foundation for their preservation and wise, sustainable management.
6. Community-Engaged Scholarship	The University has a deep history and prominent expertise in community- engaged research, including an extensive focus on Ontario's rural communities
7. Creative and Critical Practice	Researchers are solving problems through production and analysis of new cultural forms, and exploring the boundaries of practice-based research. This involves critical and creative work in areas ranging from drama and prose fiction, oral traditions, and visual culture, to improvisatory music-making, and beyond.
8. Data Science and Informatics	The University's multidisciplinary expertise, including statistics, digital humanities, business analytics, robotics, bioinformatics, machine learning, and artificial intelligence, positions the University to integrate into our research and teaching innovative ways of creating, managing, combining and applying data in the knowledge economy.

Implementing our Strategic Research Plan

The Office of Research will play a role in supporting and sustaining the activities of our researchers to align them with the Strategic Research Plan, and will be accountable for it, as follows:

- Work with University executive offices as key institutional documents, (e.g. Strategic Mandate Agreement) are developed, to ensure alignment and coordination with the Strategic Research Plan.
- Work with Colleges, Centres and Institutes as they develop their Strategic Plans to ensure alliance with the Strategic Research Plan.
- Strategically execute key federal programs, including CFI and CRCs.
- Develop tools, building upon success indicators for **Our Principles**, to continuously elevate our progress in reference to the goals set out in the Strategic Research Plan.

Distribution of Canada Research Chairs

The University has a current allocation of 31 CRCs. Between 2017 and 2022 the University plans to deploy Chairs and CFI support across the six research themes. Chairs will be allocated based on the university's policies governing the staffing of Canada Research Chair positions. These policies state that the Provost & VPA and the VPR, in consultation with the Dean(s), will make the decision to fill a vacant Chair, and the particular area of research they decide to pursue will be in accordance with and relevant to the University's Strategic Research Plan (SRP). The Provost & VPA and the VPR may solicit proposals from the

colleges for new and vacant Chairs within 12 months of the targeted nomination date. The Provost will also decide whether the recruitment to fill the Chair will be a targeted recruitment in accordance with the University's employment equity plan and goals.

Equity

The University of Guelph is committed to fostering a culture of inclusion as an institutional imperative: "*All members of our community, regardless of race, aboriginality, ethnicity, gender, nationality, sexual orientation, gender expression and identity, religious affiliations and other aspects of their identities, are accepted because of their potential and afforded equal opportunities to thrive*" (Fostering a Culture of Inclusion at the University of Guelph). The University understands that fostering a culture of inclusion begins with acknowledging diversity and the fact that some individuals experience barriers to education, employment and full participation due to systematic factors. This understanding guides the Canada Research Chair recruitment and nomination process and will ensure that the opportunities afforded by chairholders' research program are inclusive, equitable and accessible to all. To ensure that University's Inclusion Framework and its Employment Equity Plan are upheld, the University engages in an ongoing process of collecting equity data, monitoring equity performance and making recommendations for course correction. Annually, the University monitors its progress in addressing equity amongst its CRC appointments according to the target-setting methodology implemented by the CRC Program.