

Message from the Associate Provost Research and Graduate Studies

It was so exciting and energizing to work with the Trinity Western University community to develop this new Strategic Research Plan (SRP)! The development of Trinity Western University’s SRP is a unique opportunity to plan how we will forge the path ahead for our research as we aim to utilize research to support our Mission and Vision, while also focusing on solving and learning more about challenging global issues to make a positive impact on the world for the glory of God. The goal of this SRP was to align with our recently released [University Strategic Plan](#) with a special focus on the research related goals within the Strategic Plan and how the Office of Research will operate to support the SRP. As a smaller Christian liberal arts university, TWU is rapidly “on the rise” and has made significant strides over the last decade in building up research culture and infrastructure, supporting undergraduate research, and strengthening structures for growing faculty research with much more to come. Research at TWU provides students with invaluable opportunities to work closely with faculty members beyond the classroom. Research experience allows students to learn additional fundamental skills in their field and the “soft” skills such as the ability to communicate findings to any audience, while developing crucial critical thinking, network building, and confidence. Faculty that participate in research become practitioners of their teaching while exhibiting the distinctives of being a Christian researcher. Our SRP reflects our Mission, Vision, and our goals of striving to continually deliver academic research excellence, innovation, multi-disciplinary collaboration and our commitment to Inclusive Excellence and Truth and Reconciliation.

TWU is also grateful for the continued support that we receive for maintaining our research enterprise from the Government of Canada through the Canada Research Chairs (CRCP) and the Canada Foundation for Innovation. As part of this support TWU is required to post our SRP on our website and on the CRCP website. I wish to also thank everyone involved in co-creating the new TWU SRP with a particular focus on the Research and Academic Support (RAS) and Academic Research Council (ARC) subcommittees of Senate. When you read this SRP, my hope is that you will also be inspired and excited by the existing collaborative research strength at TWU and the strides in research that are to come at TWU in the next several years!



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Associate Provost Research and Graduate Studies
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Objectives

Trinity Western University's Strategic Plan: "[TWU 2030:Every Graduate Equipped](#)" identifies several priority areas that involve the permeation of research and scholarly activity into the activities of students, faculty, and staff. Within TWU's previous Strategic Research Plan, one of the goals was to "build a campus research culture" which will continue to be a focus along with several research areas where we aim to expand that will be discussed in the Research Themes section. The Strategic Research Plan objectives below contribute towards and builds upon efforts to accomplish the objectives the TWU Strategic Plan. TWU recognizes that student and faculty engagement and retention, enhancement of teaching, and the development of graduate programs such as the new PhD program in the School of Nursing, are all dependent upon continuing to raise the profile of research at TWU. Research is also one of the means that our university's activities can benefit the world around us. Research itself is changing, as many of the world's new research challenges involve a collaborative multi-disciplinary approach for which the collegial tight-knit research environment and community at TWU is well-suited to address. Therefore, over the next seven years, TWU will aim to continue to grow its research culture by providing facilities, opportunities, specialized equipment, library resources, research security, data management, celebration and publication of faculty/student research that facilitate an excellent, collaborative, innovative environment to meet the following **Objectives**:

1. Lead the discussion with students, academics and the general community on faith integrated research and the distinctiveness of research at a Christian University.

Integrating faith into research permeates through the fabric of all the Research Themes in this Strategic Research Plan. Under this objective TWU researchers will continue to integrate their faith with their research as stated under Priority 1 of TWU's Strategic Plan: "Develop faculty to advance the integration of faith, learning, and scholarship." Faculty work with students on research projects to further TWU's Mission and Vision and to develop highly qualified personnel. TWU aims to be a leader in the area of faith integrated research supporting our Mission and Vision by supporting and helping to guide TWU researchers' integration of faith into their research program and the utilization of research as a teaching tool both inside and outside of the classroom. Students will also receive training from faculty supervisors in research methods and theories, experimental techniques, quantitative and qualitative research, digital literacy, and data management and analysis. As part of this objective TWU will aim to generate additional opportunities for students and faculty to integrate their faith into their research such as the new internal FIRE (Faith Integrated Research Excellence) grant that provides funds for Faculty to hire an undergraduate research student for faith integrated research projects and helps to prepare faculty for applications to the Council for Christian Colleges and Universities Networking and Planning Grant applications.

2. Develop orientation/development programs, opportunities and knowledge mobilization for undergraduate/graduate student research.

TWU already has robust undergraduate research programs. We will aim to create further opportunities for both undergraduate and graduate research through increasing support to faculty grant writing for extramural grant opportunities that fund the hiring of graduate and undergraduate student research assistants. We will also develop programs to stimulate additional involvement of students in classroom research to foster the continual growth of research culture and inquiry as a staple for student development in liberal arts education. We affirm research as a valuable learning experience for both graduate and undergraduate students, as students receive direct training from their faculty supervisors, take ownership of their research projects and are expected to present through events such as the TWU CREATE Conference, on campus seminars, and the TWU three-minute thesis competition. This Objective and the Research Themes reinforce TWU's Strategic Priority 2.3 which aims to: "Promote faculty-student research that advances a Christian vision of human flourishing (i.e., global

sustainability, political and economic development, social and religious life). We specifically aim to further strengthen the connection between research and education as a measure of excellence in student engagement. Undergraduate research programs at TWU will continue to be strengthened, as students receive training opportunities through summer research assistantships, co-op placements and internships in industry, and senior research thesis courses. We aim to provide increased opportunities for student involvement in research through programs that interface with classroom teaching, the creation of student peer research networks and research orientation programs aimed at helping incoming undergraduate/ graduate students understand the value of including research experiences as part of their programs.

3. Increase research collaboration within the University and with other institutions, government, industry and NGOs to raise the profile and reach of research at TWU and to provide applied research experience to faculty and students.

When a faculty team up with students to work with an external partner it is mutually beneficial to all involved. Working with external partners grows the professional network, expands the experience, and broadens the impact of academic research, while driving growth and innovation for the external partner. This Objective helps to support TWU's Strategic priority 3.3: "Design opportunities for students to accelerate innovative ideas, products, and services with positive economic, social, and environmental impact." towards driving innovation and growth." Interdisciplinary collaborative research aiming to address challenges that face local and global communities through the formation of external partnerships is a priority for researchers at TWU. Although still in its nascent phases, over the past three years TWU has experienced a steady growth in the formation of research partnerships with government, industry, NGOs other universities nationally/internationally. In addition to forming collaborative research partnerships, we aim to help faculty develop and mobilize ideas and technologies that address real-world research challenges. TWU will increase programs for shepherding faculty to develop their research profile and create lasting connections in addition to improving communication with potential industrial partners as a means to develop relationships and provide additional experiential learning opportunities for students. Faculty will be aided in the development of rapport, identifying goals and expectations, adaptation to industrial culture and involving students in applied research projects with industrial partners. Research with external partners plays an integral role in allowing students to identify their strengths, grow their professional network, find placements after graduation, and obtain real-world experience. TWU has recently created the Center for Career Calling and Development that will also be instrumental in working to help connect students with additional applied research opportunities.

4. Continue to grow Research Institutes and Centres into centres of research excellence.

TWU has a number of research Institutes and centres in a diverse array of research areas that reflect our Research Themes in the Strategic Research Plan. At TWU, centres and Institutes exist to leverage the collective strength of the TWU research community in a given research area. Centres further the research priorities and goals identified by a collection of faculty members while Institutes are large collaborative organizations of faculties/schools, community leaders, and external scholars that are hosted at TWU. TWU will aim to continue to nurture the growth of research centres and institutes to help each to serve as an "epicentre" of growth of a given research area, where additional collaborations on and off the TWU campus could be formed and thrive through capitalizing on the synergies of researchers to maximize research funding, growth of external partnerships, enhanced knowledge mobilization, and community outreach. One of the strengths of a smaller university such as TWU, is the ability to readily form cross-faculty collaborations. In alignment with our Research Theme in Health and Human Flourishing, we hope to add one additional Centre for Health & Human Performance that reflects our research growth and formation and recent renovation of the CFI funded Integrative Cardiovascular Physiology Laboratory. To support the research theme, "The Environment, Sustainability and Spirituality" and TWU's Strategic objective to "secure funding and launch a dedicated

faculty/student research lab focused on global renewal and sustainability” we will also plan to add another Institute/Centre focused on sustainability and care for our environment which reflects our current growth in the research areas of developing a circular economy and planetary health.

5. Increase inclusive excellence in research and research opportunities

TWU’s research ecosystem recognizes that diversity and inclusion of people and ideas strengthens research quality and impact. Every researcher brings unique gifts and viewpoints which, when effectively included and valued, allows a research program and university research enterprise to flourish. To quote TWU’s Vice President Inclusive Excellence Jennifer Adkins: “At Trinity Western, our commitment to diversity and inclusion comes from embracing the outworking of God’s eternal plan for unity and reconciliation. The embrace and celebration of difference lies at the core of God’s work, and this work forms our very identity as a Christian university”¹. Under this Objective TWU will aim to increase representation and research success among faculty and graduate and undergraduate student research trainees from underrepresented backgrounds to grow a diverse and inclusive research enterprise. As a Global Christian University, TWU’s Strategic Plan priority 1.1 states “Promote inclusion and belonging by establishing a shared commitment to diversity and equity in the truth of the Gospel: that God was reconciling the world to himself in Christ (2 Cor. 5:19–20).” As part of our efforts, TWU will work to advance responsive research programs on inclusive excellence and to develop an inclusive culture of innovation that engages research trainees and faculty from diverse fields and backgrounds. Inclusive excellence permeates each of the research Themes in this strategic research plan. Inclusive excellence will be integrated into research awards assessment such as for example, the incorporation of principles of the San Francisco Declaration on Research Assessment (DORA) into the assessment of contributions to research, training and mentoring in our annual internal grants competition to ensure that a wide range of research results and outcomes are considered and valued as part of the assessment process. These principles will also be integrated into the internal assessment of student awards such as the Undergraduate Student Research awards and the Canadian Graduate Scholarships, and we are working on an update for our Canada Research Chairs Equity and Diversity and Inclusion Action plan since we have accomplished many of the objectives on the initial EDI Action Plan. Through faculty training in best EDI practices, inclusive excellence will be considered both in building a diverse high performing research team, and at each point in the research process including research plans, research subjects and research impact.

Research Themes

The seven intersecting Research Themes outlined in general terms below have emerged as areas of current research strength and/or as areas of committed growth.

Religion, Culture, and Ethics

Religion, culture, and ethics are integral components of human identity and societal organization, influencing individual behaviors, communal practices, and moral reasoning. While religion often serves as a foundational framework for ethical principles, culture frames and shapes the expression of these principles within specific social contexts. Recently, religions’ role in shaping society and culture has become an important area of study particularly in the humanities and social sciences. By questioning the premise that healthy human development occurs only with the demise of religion, critics are moving beyond facile oppositions of faith and reason, or religion and secularism, and are instead developing more complex assessments of religions’ role in modern societies. Increasingly, an important focus of scholarly inquiry in the academy is the positive role religious belief plays in humans’ ability to flourish socially, to develop ethical values, to protect human rights, and to demonstrate solidarity with the marginalized. In light of this renewed recognition that religion remains an integral part of human identity for the majority of the world’s population, scholars are examining the potential

¹ <https://www.twu.ca/news-events/news/welcoming-trinity-western-universitys-inaugural-vice-president-inclusive>

benefits of religion and religious diversity both in modern secular societies and in more traditional religious communities. At the same time, many religious leaders are trying to rearticulate their faiths for secular societies whose institutions and administrative structures usually operate without reference to religion. Because of its established research record together with strategically developed institutes, Trinity Western University is well positioned to be a leading research centre for religion, culture, and ethics. This research theme is supported by two upcoming endowed chairs in New Testament and Theology as well as multiple centres and institutes such as the Religion in Canada Institute, Gender Studies Institute, the Dead Sea Scrolls Institute, the John William Wevers Institute for Septuagint Studies, the Inklings Institute of Canada and the Anabaptist-Mennonite Centre for Faith and Learning.

Some examples of established and emerging research strengths: Religion and religious minorities in North America and globally; the formative role of religion in the shaping of society and culture; sacred texts and their historical and sociological contexts; the role of religion in informing legal and ethical dimensions of public interest; the influence of religion on leadership development, equity diversity and inclusion; the benefits of religion when dealing with addiction, drug abuse and other potentially destructive behaviors; the dialogue between Christianity and other religions and cultures; the influence of religion on globalization; and the relationship between science and religion.

Truth and reconciliation through Indigenous Research

TWU as a Christian university upholds truth, justice and reconciliation. The Institute of Indigenous Issues and Perspectives located at TWU offers the university and surrounding community a distinctive association to assist with community engagement, bridge-building, and provides cross-cultural education between Indigenous and non- Indigenous society. Through the Institute and beyond, TWU promotes the holistic nature of research as being cross-disciplinary, practical, and project-based. Facilitating research under this theme involves the development of collaborative, interdisciplinary approaches to Indigenous research, bringing together individuals in a creative manner in dialogue to reconcile settler society with Indigenous peoples. Research is rooted in the principles of self-determination, cultural revitalization, and decolonization. Topics encompass a diverse range of areas including identity, spirituality, health and wellbeing, post-colonialism, Indigenous ways of knowing, being and doing, land rights, education, language revitalization, and economic development. Community-based research methodologies that involve meaningful engagement with Indigenous communities are prioritized throughout the research process. Research protocols and methodologies require cultural sensitive of and respect for Indigenous ways of knowing, being, and doing. Research is catalyzed through collaborative partnerships between researchers, Indigenous communities and other stakeholders to co-design and co-implement research initiatives. Active participation of undergraduate and graduate students in research projects, particularly the involvement and input of Indigenous students as well as Indigenous staff and faculty from the TWU campus and other surrounding educational institutions is highly encouraged and supported. The development of relationships, learning and mutual understanding is key to knowledge creation and knowledge mobilization to engage in research that honours Indigenous ways of knowing, being, and doing. As well as the Institute of Indigenous Issues and Perspectives, this theme is supported by the Centre for Equity and Global Engagement and a Michael Smith Scholar in “Responding to the Truth and Reconciliation Calls to Action in Healthcare through the Arts as a Way of Knowing, Disrupting, and Healing”.

Some examples of established and emerging research strengths: History of Indigenous peoples; exploring the arts and storytelling as a way of knowing, expressing, healing, and disrupting healthcare; decolonizing exploration of anti-racist, arts-based responses to the violence described in the Missing and Murdered Indigenous Women and Girls Report across the context of higher education; indigenous digital health ecosystem; effects of industrial development on Indigenous communities in the pacific northwest; Indigenous epistemology, career decision-making of Indigenous young people, repatriating hən̓q̓əmiñəm placenames to

TWU's main campus and research projects that honour the history and memory of local First Nation's communities.

Social Justice and Inclusive Excellence

Social justice and inclusive excellence are interconnected concepts that have recently gained increasing recognition, owing to the importance of understanding and addressing systemic inequalities and discrimination across various domains such as education, employment, healthcare and housing. At TWU, research in social justice and inclusive excellence encompasses a broad range of interdisciplinary studies. Areas explored under this theme include racial equity, ageism, indigenous rights, poverty, gender, geographic and economic disparity. Studies examine the role of government policies, laws, and institutional practices in perpetuating or addressing social injustice and inequity. The research under this theme also plays a pivotal role in promoting equitable societal structures and is built upon the foundation of the golden rule of Christ: "So in everything, do to others what you would have them do to you, for this sums up the Law and the Prophets" (Matthew 7:12 NIV). Inclusive excellence is not just about the feeling of belonging by diverse peoples but also the inclusion of diverse ideas which creates an overall stronger society. Similar to all of TWU's research themes, many of the research challenges to be addressed under this theme are complex and multi-faceted. Therefore, research under this theme requires an inter-disciplinary approach, collaboration and diverse expertise including sociology, psychology, education, healthcare, business, and the arts. The research also utilizes diverse methodology, including community-based research, quantitative research, qualitative research, case studies and participatory action research. This Theme is supported by the Centre for Equity and Global Engagement, the Institute of Indigenous Issues and Perspectives, the Gender Studies Institute, and the TWU Office of the Vice President of Inclusive Excellence. Research under this theme is also supported by a Michael Smith Scholar in "Responding to the Truth and Reconciliation Calls to Action in Healthcare through the Arts as a Way of Knowing, Disrupting, and Healing", a Tier 2 CRC in "Cardiovascular Adaptation to Exercise" and a Tier 1 CRC in "Equitable People-Centred Health Measurement".

Some examples of established and emerging research strengths: Indigenous research; diversity; equity and human rights for marginalized people; mothering and albinism; equitable person-centered health; working environments and accessibility for people with disabilities; gender; feminism; sociology of religion; microsociology; self and identity; religious and gendered selves on the front stage of leadership; career decision-making of immigrant and indigenous young people.

Health and Human Flourishing

Recognizing the interconnectedness of physical, spiritual, mental, and social well-being in fostering overall human flourishing, this theme seeks to promote interdisciplinary biological, social, historical, psychological, and cultural research on all aspects of personal and public health. Through this research, we aspire to enhance personal and population health and improve health care services and policies to better address the needs of patients, families, historically marginalized groups and society as a whole. This theme amalgamates a range of research activities informed by health sciences and related disciplines, including biomedicine, social sciences, psychology, and education. While traditional medicine focuses primarily on physical health, the concept of human flourishing encompasses a broader spectrum, holistic view of well-being, including psychological, social, and existential dimensions. TWU seeks to contribute to innovations that prevent and treat disease, promote patient-centred health care, enhance coping skills, and lead to greater inclusion and well-being for persons with disabilities. We endeavor to develop and integrate knowledge about broader historical and structural factors such as class (income and education), gender, ethnicity, and spirituality in relation to health and human flourishing. An integral focus of the research is to actively engage the public and service providers (including

health care professionals) through the co-creation of knowledge translation and education strategies. This Theme is supported by the Centre for Equity and Global Engagement and upcoming Centre for Health & Human Performance. Research under this theme is also supported by a Michael Smith Scholar in “Responding to the Truth and Reconciliation Calls to Action in Healthcare through the Arts as a Way of Knowing, Disrupting, and Healing”, a Tier 2 CRC in “Cardiovascular Adaptation to Exercise” and a Tier 1 CRC in “Equitable People-Centred Health Measurement”.

Some examples of established and emerging research strengths: Biomedical research to understand the genetic, cellular, and physiological bases for disease such as glioblastomas and cardiovascular disease; antimicrobial resistance and the One health approach; equitable person-centered health; patient-centered outcomes and health-related quality of life aimed at placing the perspectives and experiences of patients and families at the center of healthcare decision-making; quality of life assessment tools; health services delivery; compassionate care; improvements in health professional education and practice, health and human services, and health leadership and policy; health promotion research on personal health practices, human performance, capacity, coping skills, and social and environmental living conditions; pedagogical research in nursing and health care; knowledge translation research focusing on patient and family engagement, health and human services, and health professional education; the accessibility of people with disabilities or chronic conditions to education, employment and society; arts-based spiritual care in healthcare; digital storytelling as a method in health research.

Arts-Driven Innovation, Expression, and Interpretation

Arts-driven innovation, expression, and interpretation encompasses a rich and multifaceted domain that intersects creativity, culture, and societal dynamics. The arts have always been linked to human flourishing by questioning, expressing, seeking and interpreting what it means to be human. This research theme affirms that the ways human beings come to insight are multiple and that knowledge is not always reducible to discursive language. This theme examines how artistic expression serves as a medium for knowledge creation/mobilization, self-expression, and cultural representation. Collaborative projects between artists and scientists explore scientific concepts through artistic mediums. Use of arts-based methodologies such as storytelling, visual arts and design thinking principles combine to generate innovative knowledge generation and mobilization in various areas including sustainability, indigenization, healthcare and integration of arts with biblical scripture. Research under this theme also examines the moral and ethical implications of arts, media and culture such as the moral decision-making by video game players. Through inquiry-based, critical creative practices, insight and understanding arise through visual, auditory, haptic, sensory-perceptual, and textual means. This new knowledge is often marked by methodological complexity, multi-disciplinarity, and collaboration, intertwining the ontological (who we are) and situational (where we are) with the epistemological (what we know). The artists and scholars in this research theme have longstanding performative, practice-led, research-creation, and text-based scholarly practices that are located in the intersections between the arts, media, and society. This Theme is supported by the activities of the School of Arts Media and Culture (SAMC) including the SAMC Gallery and multiple productions as well as the Institute of Indigenous Issues and Perspectives and the proposed Centre for Sustainability. Research under this theme is also supported by a Michael Smith Scholar in “Responding to the Truth and Reconciliation Calls to Action in Healthcare through the Arts as a Way of Knowing, Disrupting, and Healing”.

Some examples of established and emerging research strengths: Integrative creative practices for knowledge mobilization; arts as a way of knowing, expressing, healing, and disrupting healthcare, and mentoring students; the role of the arts in reconciliation with Indigenous peoples; visual illustrations and scripture; artistic expression of sustainability and climate change and equity-oriented arts-based spiritual care in healthcare services; ethical

and moral decision in video gaming; children’s literature; fantasy literature; moral education; literature and spirituality; literature and gender.

Ethics, Data Analytics, and Information Technology

In today’s rapidly evolving technological landscape, data, analytics, and mathematics form the cornerstone of innovation across various domains, from business and healthcare to education and human kinetics. Research in data analytics, computer sciences and information technology at TWU under this theme aims to address pressing challenges in diverse fields such as healthcare, climate /environmental science, biology, human kinetics, finance and consumer behavior and methodologies aimed at understanding, developing, and applying advanced technologies for collecting, processing, analyzing, and interpreting data to generate insights and support ethical decision-making. Similar to all of TWU’s research themes, interdisciplinary linkages are critical such as those between the computer sciences, statistics, mathematics, business, and health. This theme is also key for developing interactions between academia and industry. Information is drawn from machine learning, statistics, mathematics, data mining, digital communication, visualization and mathematical modelling with the goal of informing evidence-based policymaking, understanding complex biological and physical systems, tackling social disparities, and promoting social justice in areas such as consumer protection and emerging workplace cultures, finance, marketing, supply chain management, cybersecurity, smart cities, and environmental monitoring. Research Data Management research focuses on the development of processes that are applied throughout the lifecycle of a research project and beyond, including, data collection, archiving, sharing, preservation, governance, and quality management. Researchers work on exploring the application of predictive analytics and machine learning algorithms to extract insights from data and make predictions or recommendations as well exploring the impact of technology on society from the perspective of biblical principles. Emerging research areas include artificial intelligence, edge computing, quantum computing, metaverse and augmented reality. This theme is supported by the activities of several researchers such as those in TWU’s Computing Science and Mathematics Programs and the Schools of Business and Human Kinetics. Research under this theme is also supported by a Tier 2 CRC in “Cardiovascular Adaptation to Exercise” in Human Kinetics and a Tier 1 CRC in “Equitable People-Centred Health Measurement” in the School of Nursing.

Some examples of established and emerging general research strengths: Interactive data and visual analytics to investigate social issues including crimes, fear/perception of crime, cybersecurity, public safety, crowd control, fire egress, and terrorism; pattern formation in biological morphogenesis, fintech, blockchain, mathematics of robotic motion, bioinformatics/biomedical engineering; scientific visualization; education technologies; mobile application development; mathematical and computational methods, consumer behaviour; machine learning for athletics monitoring; computational geoscience.

The Environment, Sustainability, and Spirituality

As a Christian university committed to academic excellence and service, our institution recognizes the profound importance of sustainability and creation care within the framework of our faith. Guided by Christian principles of stewardship, justice, and compassion, this research theme is aimed at advancing research broadly in the area of sustainability. More specifically, focusing on research that is generally guided by the United Nations Sustainable Development Goals. The research under this theme aims to advance knowledge by conducting innovative research that enhances our understanding of environmental challenges and contributes towards global sustainability solutions, while exploring the intersections of faith, ethics, and environmental sustainability. General areas of focus include climate change mitigation, biodiversity conservation, sustainable ecosystems, renewable energy and materials, planetary health, equitable access to resources, and the promotion of policies, practices, and behaviors that support environmental sustainability. Christian perspectives and compassion for those that are most vulnerable to the effects of climate change will be integrated into research exploring the theological, ethical, and spiritual dimensions of environmental stewardship. Understanding the multi-

disciplinary approaches that are required to address the research goals described in this theme, TWU will foster interdisciplinary collaboration among researchers, local communities, Indigenous peoples, government and grassroots organizations to co-create research projects, initiatives, and interventions that address community-specific environmental challenges and priorities. The research informs and supports the assimilation of sustainability and creation care themes into academic curricula across disciplines to educate and equip faculty and students by the provision of training and resources that empower individuals and communities to integrate principles of sustainability into their lives. This Theme is supported by the activities of the Institute of Indigenous Issues and Perspectives, the proposed Centre for Sustainability as well as faculty research activity across multiple disciplines throughout TWU. TWU's commitment starts locally with ecological restoration and conservation projects on our own field study sites in Langley (Ecosystem Study Area and the Blaauw Eco Forest) and Salt Spring Island (Crow's Nest Ecological Research Area),

Some examples of established and emerging research strengths: Mathematical modelling of environmental systems; glaciology; planetary health; environmentally friendly fluoropolymers; utilizing solid waste materials as catalysts and nano/micro materials; composite materials; antimicrobial resistance; mycelium-based materials; invasive species biology and ecology; weed science; riparian ecology ; agricultural economics and policy; forest economics; climate change economics and carbon offsets; intersection between agriculture and wildlife; sustainability of food systems; watershed health.

Measuring success

We will undertake and assessment of this plan in 5-year cycles employing an analysis of multiple research metrics appropriate to various disciplines. These metrics include publications, grants, honours and numbers of student research trainees. Our assessment will also include creative works and performances, public speaking engagements, hosting and/or chairing conferences, presentations at professional meetings and colloquia, patents, licenses, industry and government engagement, commercial start-ups, as well as other indications of public and professional interest. The assessment process will be led by the Office of Research in collaboration with the Academic Research Council and under the direction of Senate, and the Research and Academic Support Subcommittee of Senate (RAS) which will culminate with a report presented to Senate. This report will include a general performance appraisal and recommendations that will be used to aid in writing the next Strategic Research Plan.

Allocation of Canada Research Chairs

We successfully nominated for a CRC (Tier 1) in October 2022 and submitted a renewal application for a second term of a CRC (Tier 2) In October 2023. We hope to have at least one more CRC in place during the term of this plan – 1 nomination in Fall 2025 with additional applications if we have growth in our allocation. Where applicable, we will pair CRC nominations with CFI applications to increase our research infrastructure. As new CRC opportunities are allocated to TWU, areas for CRC nomination will be developed through consultation with the President, Provost, Associate Provost Research and Graduate Studies, Deans and the Canada Research Chairs Steering Committee according to our [CRC Reduction and Reallocation Policy](#) and in full alignment with this Strategic Research Plan and [EDI Action Plan](#).

AREA	TIER	DISCIPLINE	AGENCY	THEME	DATES
Equitable People-Centred Health Measurement	1	Nursing	CIHR	Health and Human Flourishing; Social Justice and Inclusive Excellence; Ethics, Data Analytics and Information Technology	2023-2030
Cardiovascular Adaptation to Exercise	2	Physiology	CIHR	Health and Human Flourishing; Social Justice and Inclusive Excellence	2018-2024

Outline of Office of Research Support for the Strategic Research Plan

The goals below shows the Office of Research goals to support the Strategic Research Plan and are in direct alignment with the [TWU Strategic Plan](#):

1. Goal 1A. Build stronger relationships and joint efforts with research offices at CCCU schools in Canada and the United States.
2. Goal 1B. Help students to understand the distinctiveness of a Christian Researcher and the importance of the value of research to understand God's world.
3. Goal 1C. Help faculty plan their research trajectories regardless of career stage through the development of formal processes.
4. Goal 2A. Help to create more opportunities for collaboration with industry, government etc. to provide students and faculty with increased opportunities to gain real world research based experiential learning.
5. Goal 2B. Help to create a consortium of TWU researchers with the goal of securing funding for research and infrastructure in sustainability.
6. Goal 2C. Help create a Sustainability Research Institute and Centre for Health & Human Performance.
7. Goal 2D. Integrate research into classroom teaching to extend research training for students beyond the current Undergraduate Student Research Awards.
8. Goal 2E. Create opportunities for students to help grow TWU’s undergraduate research culture
9. Goal 3A. Develop systems and student cohorts to deliver specific real-time support and coaching for students who are participating in research at TWU.
10. Goal 3B. Bring attention and facilitate funding programs that aid students in participating in research that is close to market
11. Goal 4A. Improve tracking for services provided by the Office of Research
12. Goal 4B. Procure and implement online systems for grant and ethics management.
13. Goal 4C. Increase the visibility and recognition of TWU research