

APPLIED RESEARCH

STRATEGY



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INTRODUCTION

Okanagan College is committed to transforming lives and communities. In the rapidly evolving landscape of higher education, Okanagan College, and our communities, it is imperative that we stay at the forefront of knowledge generation and innovation. Bridging the gap between theory and practice has become increasingly important in our teaching and learning environments. This applied research strategy is intended not only to enhance the quality of education but also to empower employees and students to address real-world challenges through rigorous experimentation and practical problem-solving. By cultivating a culture of applied research, Okanagan College will nurture a dynamic learning environment that fosters a sense of curiosity, innovation, interdisciplinary collaboration, and social impact. Students and employees will have the opportunity to experience the enriching effects of applied research on learning and teaching, establishing a vital connection to employers and community. This Applied Research Strategy sets the stage for creating action plans that will propel our college to connect applied research, and the scholarship of teaching and learning as key elements of academic excellence.

In 2021, Okanagan College released our Inspire Plan. It acknowledges the beneficial ways in which applied research enables diverse avenues for collaboration among educators, students, and community members. Applied research contributes a new lens for experiential learning, enabling discovery and real-world problem solving in partnership with peers, educators, and community partners. Okanagan College continues to advance the depth and breadth of its evolving applied research areas of focus, expertise, and practices.

This Applied Research Strategy is a transformative step towards advancing applied research at Okanagan College and within our communities. The overarching goals of this Applied Research Strategy are to:

- continue to develop a culture of research, create a flexible and adaptable applied research infrastructure, and expand the research capacity of our employees and students; and
- build on the college's current areas of applied research experience, and continuously look for emerging research opportunities that support our regional industry and community partners.



APPLIED RESEARCH AT OC

Defining Applied Research

In developing a working definition of *applied research*, inspiration was taken from Colleges and Institutes Canada's (CICan) definition, and it has been adapted as follows:

Applied research is the development of innovative solutions to real-world challenges affecting our communities. It seeks to resolve practical problems by applying the latest knowledge and technology to create or improve services, practices, processes, or products.



CONSULTATION PROCESS

HEARING FROM THE EMPLOYEES AND STUDENTS

Our employees and students provided valuable information that has informed this Applied Research Strategy.

Between October 2022 and May 2023, the members of the working group facilitated fourteen Applied Research Strategy consultation sessions, virtually and in-person, with 67 employees and 46 students from across the institution. These sessions identified the strengths and the areas in which applied research could be further developed both internally and with our community partners. The sessions also identified the importance of the scholarship of teaching and learning being included in the applied research strategy, and the infrastructure and human resources support needed to sustain and expand applied research.

We appreciated hearing their perspectives and insights into the challenges, opportunities, and strategies for strengthening applied research at Okanagan College.



GUIDING PRINCIPLES

Applied research at Okanagan College contributes to the teaching and learning experiences of our students and employees while strengthening our community partnerships. The following guiding principles were derived from the information obtained during the consultation process. They provide a foundation for future development of the Applied Research Strategy.

1. **Relevance:** Applied research focuses on addressing real-world problems, challenges, and opportunities. It is driven by the needs and priorities of our stakeholders, including organizations, industries, communities, and individuals. The research questions and objectives align with our college expertise and emerging areas of opportunity and are held to the highest ethical standards.
2. **Collaborative partnerships:** Our applied researchers work closely with students, stakeholders, college employees, community experts, industry professionals, policymakers, and end users. Applied research benefits from multidisciplinary approaches and interdisciplinary collaborative partnerships.
3. **Researcher engagement:** Researchers benefit by following their curiosity, enhancing their research interests, pursuing opportunities, and collaborating with community.
4. **Research and teaching:** Research experiences connect to teaching and learning and inform curriculum development.
5. **Student experience:** Applied research offers students opportunities for experiential learning to bridge the gap between theory and application.
6. **Equity, diversity, inclusion, and social justice (EDISJ):** EDISJ principles and practices are integral to each phase of applied research. Multiple perspectives lead to better outcomes, while strengthening research design, participation, and application.
7. **Research data management:** Research data management processes ensure equitable and safe access to data. Sharing research outcomes through knowledge dissemination and technology transfer is essential.



APPLIED RESEARCH CONCENTRATIONS

Over the past 15 years, Okanagan College researchers involved in applied research have focused on various types of natural science, social innovation, and technological projects. The research concentrations align with the depth and breadth of our academic and vocational programs. As applied research expands, emerges, and changes, the areas of concentration will evolve to remain in step with the interests of our community and our researchers. Taking a broad approach to our areas of concentration brings opportunities for interdisciplinary applied research and learning to occur, and these may be explored further during the development of our Applied Research Strategy.



FOOD AND BEVERAGE

Food and beverage production is one of the largest manufacturing industries in the Okanagan Valley with facilities distributed throughout the geographical range of the Okanagan College campuses. Everything from seed to sales can be supported through the expertise offered by those working and learning in Okanagan College's Food, Wine and Tourism programs, and through our BC Beverage Technology Access Centre.



TECHNOLOGY SYSTEMS

Technological systems permeate many aspects of our daily lives and are continually being used to find solutions to challenging community problems. Okanagan College has a track record of applying and adapting advanced technological systems in a variety of areas, to find creative solutions to drive our local industry forward.



SOCIAL INNOVATION

Social innovation refers to research that aims to address societal issues. This may include development of solutions, programs, processes, and tools that address systemic social needs at the individual, familial, and community levels. Okanagan College leverages its strengths in community engaged research to meet the needs of society.



SUSTAINABLE PRACTICES

Okanagan College has a focus on the development, use, and maintenance of ecologically sound, efficient, and sustainable systems. Previous activity has focused on residential construction with students actively engaged in building projects, and applied research linked to innovations in services delivery to homes. Other key areas of activity include green tech and environmental responsibility in partnerships with community and industry.

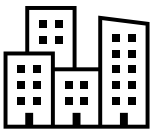


COMMITMENTS



Collaboration

1 – EXPAND APPLIED RESEARCH COLLABORATION OPPORTUNITIES.



Infrastructure

2 – INVEST IN RESEARCH INFRASTRUCTURE.



Applied Research

3 – SEEK OUT NEW APPLIED RESEARCH OPPORTUNITIES.



Policies

4 – DEVELOP APPLIED RESEARCH POLICIES.



Visibility and Recognition

5 – INCREASE THE VISIBILITY AND RECOGNITION OF APPLIED RESEARCH ENDEAVOURS.



APPENDIX A – COMMITMENTS

Commitment 1

Expand Applied Research Collaboration Opportunities

Okanagan College employees have many applied research areas of interest, including, but not limited to, the applied research concentrations identified. Okanagan College employees are encouraged to engage in their applied research interests. By engaging in applied research, employees and students can create new knowledge and real-world experience in problem-solving and identifying new areas of discovery that support our college community.

Our Initiatives:

- Increase opportunities for employees and students to form strong partnerships and collaboration with industry, community stakeholders, and internal and external multidisciplinary teams that may lead to applied research projects.
- Provide easy access to potential research projects that industry and community members identify that they would like Okanagan College researchers to address.
- Develop a communication strategy that identifies relevant applied research funding opportunities for students and employees.
- Promote applied research projects to students in various learning contexts.
- Identify potential short term training opportunities, micro credentials, and courses that may evolve from applied research work.
- Develop a series of workshops for employees interested in learning about and potentially pursuing applied research projects.
- Continue to monitor and advocate for human resources, volunteers, and support required in applied research.

Commitment 2

Invest in Research Infrastructure

Investing in the infrastructure needed for applied research projects is crucial to establishing expertise and building a reputation in various sectors. Investing in adequate infrastructure such as laboratories, research equipment, and technology, enables researchers to conduct high-quality research that may push the boundaries of knowledge, address pressing societal challenges and contribute to economic growth in our communities. Investing in research infrastructure provides students with valuable opportunities to engage in hands-on research experiences, fostering their critical thinking skills, creativity, and scientific acumen.

Our Initiatives:

- Strengthen current areas of concentration by identifying opportunities to invest in applied research infrastructure that supports applied research projects.
- On an annual basis, identify applied research areas of concentration to ensure infrastructure needs are incorporated into both the Integrated Resource Planning and capital planning processes.
- Identify funding agencies on an annual basis that support infrastructure funding and project areas of concentration that would qualify for the funding.
- Create the data management processes needed as outlined by the Tri-Council Agency.

Commitment 3

Seek Out New Applied Research Opportunities

Okanagan College recognizes the importance of embracing new applied research opportunities. Applied research fosters internal and external relationships, partnerships, innovation, and advancements of knowledge in practical fields, facilitating the development of solutions that can positively impact college partners, educators, students, society and the economy. Embracing new applied research opportunities empowers Okanagan College employees and students to stay at the forefront of innovation, nurture academic excellence, and fulfill our mission of transforming lives and communities.

Our Initiatives:

- Through the NSERC Mobilize grant funding position, increase the opportunities to meet with companies and organizations in our communities to identify potential applied research.
- On an annual basis, host a minimum of four information sessions on applied research topics and funding relevant to current and potential community partners.
- Expand the scope of the annual Research, Innovation, Partnership Expo to include presentations by researchers, students, industry and community members interested in sharing their applied research stories.
- Deliver a total of four information sessions to students (Fall, Winter, Summer) on paid employment opportunities for applied research projects.

Commitment 4

Develop Applied Research Policies

Okanagan College recognizes the importance of establishing applied research policies that provide guidance and direction to college employees, researchers, and students engaged in applied research. Policies will align with the institution's research standards and ethics.

Our initiatives:

- Conduct an internal and external environmental scan, inventory and evaluation of current applied research policies and practices to determine where further development is required.
- Create well-defined applied research policies that can help to streamline the research process, ensuring ethical considerations, compliance with regulations, and adherence to college, community and industry standards.

Commitment 5

Increase the Visibility and Recognition of Applied Research Endeavours

Okanagan College has varied and unique applied research projects. Showcasing our scholarship of teaching and learning research, applied research projects, and researchers not only enhances our reputation but also attracts prospective students, employees, funders, industry partners, community organizations and external collaborators. By highlighting our innovative and impactful projects, Okanagan College will continue to demonstrate our commitment to solving real-world problems and making a tangible difference in society and our economy.

Our Initiatives:

- In collaboration with College Relations, increase the online presence for the scholarship of teaching and learning, applied research projects, such as enhancing the applied research website to ensure applied research projects are showcased.
- Leverage social media platforms to share research highlights, engage with various audiences, and in reaching a wider community of stakeholders.
- Develop engaging and accessible summaries, blogs or infographics that communicate the key takeaways of the research to a broader audience.
- Support researchers and students in hosting webinars or workshops, to present and discuss the research with both academic and non-academic communities.
- Host Okanagan College's RIPE annual research conference to showcase the practical applications and societal impact of the applied research occurring at Okanagan College.