

The purpose of this document is to guide the institution in future investments and strategic level resource allocation decisions to ensure that the benefits of engagement in scholarship, research and creative activities are enjoyed by students, faculty and the communities we serve.

**STRATEGIC PLAN:
SCHOLARSHIP,
RESEARCH AND
CREATIVE
ACTIVITY
2017-2022**



**VANCOUVER ISLAND
UNIVERSITY**

October 12, 2017

CONTENTS

Acknowledgements	2
The environment for scholarship, research and creative activity at Vancouver Island University.....	3
Planning and approval process.....	5
Pathway to excellence	5
Cultivate talent	6
Collaborate and build clusters	8
Creation of knowledge, innovation, applications and works.....	9
Communicate knowledge into the public realm.....	10
Celebrate excellence.....	11
Cross-institutional approach to implementation.....	11
Research Strengths and Focus Areas	12
Health, resilience and well-being.....	12
Integrated sciences, technology and environment	13
Resilience of island, coastal and rural regions	14
Innovation, entrepreneurship and social change	14
Cultural, heritage and creative expression	15
Equity, diversity and social justice	15
Teaching and learning.....	16
Research and innovation chair allocations	17
Description of Research chairs	18
Endnotes	19

ACKNOWLEDGEMENTS

To the Snuneymuxw First Nation, Tla'Amin First Nation, Cowichan Tribes, Snaw-Naw-As First Nation, and Qualicum First Nation, we raise our hands and say *Hay ch qa' sii'em sieye' yu mukw Mustimuxw*.

This strategic plan was led by Nicole Vaugeois, Associate Vice-President, Scholarship, Research and Creative Activity. It was developed through a consultative process that incorporated input from faculty, students and staff at Vancouver Island University. Thank you to the Deans of each Faculty, the Directors of each Centre, Institute and Lab, and to the Faculty and students who provided input to the direction set forth in this plan. Thank you also to the Office of University Planning and Analysis for their involvement in the surveys during consultation stages of the process.

The Scholarship, Research and Creative Activity Strategic Advisory Committee members included:

- Alanna Williams, Media Studies
- Amanda Johnson, Recreation and Tourism Management
- Cheryl Warsh, History
- Dan Baker, Fisheries and Aquaculture
- Elizabeth McLin, Criminology
- Erik Krogh, Chemistry
- Rachel Moll, Education
- Guy Le Masurier, Sport, Health and Physical Education
- Jacobus Swarts, Math
- Laureen Styles, Nursing
- Janet Newbury, Adjunct faculty, Powell River Campus
- Pam Shaw, Geography
- Sally Carpentier, English, Cowichan Campus
- Sally Vinden, Hairdressing
- Gord Buzzard, Adult Basic Education
- Paula Madziya, International Education
- Sharon Hobenshield, Office of Aboriginal Education and Engagement
- Liesel Knaack, Centre for Innovation and Excellence in Learning
- Ben Hyman, Library
- Michelle Harnett, Graduate student representative
- Kendra Stiwich, Undergraduate student representative

STRATEGIC RESEARCH PLAN

The 2017-22 Scholarship, Research and Creative Activity Plan is a blueprint to guide the future development of research activity at Vancouver Island University (VIU). **The purpose of this document is to guide the institution in future investments and strategic level resource allocation decisions to ensure that the benefits of engagement in scholarship, research and creative activities are enjoyed by students, faculty and the communities we serve.**

The first part of the plan describes how scholarship, research and creative activity are embedded into the institution's mandate and current Academic Plan. The plan then identifies the existing and emerging research strengths and thematic areas at the University with examples of past strategic investments. Following this, the plan identifies how the institution will support research excellence using a life-cycle framework that will invest in the intellectual, human, social, physical, technological and fiscal capital required to ensure that learning opportunities through research are accessible across the institution.

THE ENVIRONMENT FOR SCHOLARSHIP, RESEARCH AND CREATIVE ACTIVITY AT VANCOUVER ISLAND UNIVERSITY

Vancouver Island University is a teaching university with a complementary research agenda as determined in the University Act which stipulates that VIU is “a special purpose, teaching university that serves a geographic area or region of the province” and further “so far as and to the extent that its resources from time to time permit... applied research and scholarly activities to support the programs of the special purpose, teaching university” are part of its mandate. The purpose of the institution is to be a leader in providing high quality learning and support the well-being of the people of Vancouver Island and coastal British Columbia by promoting a high quality of life for their communities through commitment to student success, community engagement and associated scholarship.

This plan is part of VIU's integrated planning and emerged as an action in VIU's Academic Plan: *Promoting and Celebrating Access to Excellence* which confirms VIU's commitment to scholarship, research and creative activityⁱ. It determines the potential opportunities, infrastructure supports, resource requirements and partnerships required to enact the commitments in the Academic Plan and will position the University as a leader in undergraduate research and community engaged scholarship. The plan also aligns with the *Aboriginal Education Plan*ⁱⁱ, particularly with respect to nurturing relationships with regional aboriginal communities and groups and developing leading practices for faculty and students to undertake indigenous community based research. Additionally, a number of Faculties have developed strategic plansⁱⁱⁱ that identify priorities and actions related to scholarship, research and creative activity. These actions have been integrated into this plan to ensure alignment with the direction of the institution's decanal areas.



AT VIU, RESEARCH AND
TEACHING ARE COMPLEMENTARY
ACTIVITIES AS BOTH CONTRIBUTE
TO THE ULTIMATE GOAL OF THE
INSTITUTION – HIGH QUALITY
LEARNING EXPERIENCES.

Just as faculty in research universities teach, so too do faculty in teaching universities research. Faculty across the institution are engaged and interested in research to contribute knowledge to their discipline, enhance their teaching practice, mentor students in deep learning experiences and to engage with external community partners. Additionally, the institution is home to a number of research institutes and centers that encourage clusters of faculty to undertake in interdisciplinary inquiry and to address regional priorities. These faculty and research clusters provide significant opportunities for undergraduate and graduate level learning experiences through research.

Students are a primary beneficiary for this plan. Research shows that the earlier and more frequently students are provided opportunities to engage in research, the benefits to learning increase. VIU excels in providing undergraduate students with opportunities to participate in research with faculty mentors. The annual celebration of research excellence among students has grown annually and showcases the wide range of scholarly, research and creative activities taking place across VIU campuses. The introduction and growth of graduate degrees over the past decade has increased the number of research endeavors taking place at the institution. This plan builds on the excellent track record that VIU has established in student research and aims to provide greater access and resources to ensure that students across the institution are able to become involved in research within their discipline and beyond.

Definitions of Scholarship, Research and Creative Activity^{iv}

Scholarly or creative activity is defined as the process of research leading to scholarly or creative products and the active participation in one's discipline or in interdisciplinary work.

This plan aims to enhance the environment for scholarship, research and creative activity at VIU. Scholarship, particularly in comprehensive teaching universities must be framed in a way that it is inclusive of a range of scholarly activities. VIU has often utilized the expanded definition of scholarship and research which classifies four types of scholarship as proposed by Ernest Boyer^v. These include: 1) **scholarship of discovery** includes original research that advances knowledge, 2) the **scholarship of integration** includes synthesis of information across disciplines, across topics within a discipline or across time, 3) the **scholarship of application** that involves the application of disciplinary expertise with results that can be shared external to the University, and 4) the **scholarship of teaching and learning** that allows for public sharing and the opportunity for application and evaluation by others. The **scholarship of engagement**, or the use of scholarship to understand and solve pressing social, civic and ethical problems is critical to VIU's special purpose mandate. Scholarship at the University looks different among the disciplines but the following principles identify activity as scholarship or scholarly activity^{vi}: 1) it contributes to the creation,

CREATING KNOWLEDGE AND IMPACT

Every day, faculty and students at Vancouver Island University undertake boundary spanning research and creative activity.

Together, and with community partners, they ask thought provoking questions and challenge conventional ideas.

They investigate, innovate and create new knowledge and works that go on to change individual learning journeys, disciplinary knowledge, and community/industry practices.

They experiment with new models and techniques forging new ground and innovative practices.

And regardless of their program or disciplinary background, they constantly strive to pursue new knowledge, find solutions to complex problems, and enhance the world we all inhabit.

dissemination, or exchange of knowledge or creative activity within one's teaching, one's discipline, or the academy; or, it contributes to the development of new concepts of discipline or inter-/ multi-discipline; 2) its results are publicly available or displayed, and therefore subject to peer review; 3) it employs the professional expertise of the faculty member, and 4) methods and approaches are professionally rigorous and appropriate to the field. These definitions of SRCA and this strategic plan are a starting point for further dialogue to define SRCA in each of the disciplines represented at the university.

PLANNING AND APPROVAL PROCESS

The direction set forth in this plan emerges after a consultative process between January and July 2017. The process resulted in evidence that is shared in the Scholarship, Research and Creative Activity Strategic Plan Backgrounder Document. The consultative process included input from:

1. The Deans of each Faculty unit provided an overview of what SRCA looks like in their area, their aspirations and plans, challenges or barriers, and resource needs (space, technology, funding).
2. The Directors of each institute, center and lab provided information on the type of SRCA undertaken, the history and evolution of the entity, future goals and direction, and resource needs (space, technology, funding).
3. Faculty were invited to provide input via an online survey which assessed current engagement and interest in SRCA, motivations, awareness and use of institutional supports for SRCA, importance and satisfaction of services and supports, alignment with research themes, suggested enhancements to improve SRCA at the institution.
4. Graduate students were invited to provide input via an online survey which assessed the type of research students were involved in, importance/satisfaction with the services and supports for research, suggested enhancements to improve SRCA for graduate students.
5. Undergraduate students were invited to participate in focus groups to explore their experience in undergraduate research at VIU, their motivations, benefits and suggested enhancements.
6. The flip chart notes from the consultations from the Academic Plan update sessions were scanned to identify input related to SRCA.

An advisory committee comprised of 16 faculty members from different academic programs, an undergraduate and graduate student, the Librarian, Aboriginal Education and Engagement, and the Centre for Innovation and Excellence in Learning was established. The advisory committee met three times to review evidence, identify future directions and review the draft of the plan prior to release.

PATHWAY TO EXCELLENCE

The pathway to excellence in scholarship, research and creative activity at Vancouver Island University will be facilitated by using a life-cycle framework (figure 1) whereby continuous investments are made by the institution at all stages of the research process contributing to the development of talented individuals and clusters that are able to create knowledge, application and works that enter and impact society. These learning achievements are celebrated internally and externally and result in growth and development of individuals; disciplinary knowledge; and solutions to societal, economic and environmental issues. **The aim of this strategy is to foster the necessary conditions for scholarship, research and creative activity such that they enable a culture of learning through research that thrives across the institution.** The strategy identifies 12 objectives and 84 actions to be implemented over a five year period using a collaborative, cross-institutional approach that utilizes resources and expertise from the institutional enabling and facilitating bodies.



Figure 1: Lifecycle framework to developing research excellence

This lifecycle framework provides the structure for the goals and objectives of this strategic plan. The design of the framework recognizes that excellence in SRCA will be achieved by cultivating talent among students and faculty; enabling collaboration through clusters and university-community partnerships; providing supports for new knowledge, applications, innovation and works to emerge; actively communication these outputs into the public realm; and celebrating achievements and excellence in SRCA across the institution. The framework provides individuals and groups opportunities to access services and supports that align with their needs. Each of the five components of the framework will be described in the following sections along with the goals and objectives to be implemented over the five year timeframe for the plan.

CULTIVATE TALENT

As a learning institution, Vancouver Island University aims to provide opportunities for faculty and students to make continuous investments in their intellectual capital. These investments then result in growth and development for individuals, the University and the region. Cultivating talent in scholarship, research and creative activity is a primary and ongoing focus of the lifecycle approach to developing research excellence. The emphasis is on developing and maintaining knowledge and skills to successfully engage in research endeavors.

Objective	Actions
Attract and develop capacity to undertake SRCA among the student body	<p><i>Undergraduate students</i></p> <ol style="list-style-type: none"> 1.1. Establish an Undergraduate Research (UGR) Advisory Committee (with student representation) to embed UGR across the institution. 1.2. Host a Council for Undergraduate Research (CUR) Institute to track progress since the 2008 CUR Institute and to build on the foundation for UGR at VIU.

	<ul style="list-style-type: none"> 1.3. Profile the benefits of engagement and alignment with graduate attributes that participation in undergraduate student research produces. 1.4. Identify, map and promote the existing and required pathways to ensure that all undergraduate students can access opportunities to engage in research. Ensure that the pathways provide opportunities for early and repeated exposure to research throughout the student journey to deepen learning and skills acquisition. 1.5. Hire a dedicated student research engagement coordinator to provide a point of contact for all student research awards, grants, scholarships, events and employment. 1.6. Engage faculty in dialogue and actions to embed undergraduate research opportunities in curricula and experiential learning opportunities across program areas. 1.7. Identify and secure enhanced financial supports for students to be able to undertake research projects and to mobilize their knowledge. <p><i>Graduate students</i></p> <ul style="list-style-type: none"> 1.8. Ensure adequate supports and oversight for graduate programs by creating a Graduate Studies Advisory Committee. 1.9. Coordinate opportunities for graduate students to gain skills in all phases of the research process via workshops and events. 1.10. Provide training and mentorship opportunities for faculty to support graduate student supervision. 1.11. Identify and secure enhanced financial supports for students to be able to undertake research projects and to mobilize their knowledge.
Support faculty engagement in SRCA	<ul style="list-style-type: none"> 1.12. Identify and pursue resources to address time limitations for interested faculty to engage in SRCA 1.13. Identify and share best practices used by faculty to embed SRCA into their teaching and service roles 1.14. Develop a research mentorship program to build capacity for SRCA across the institution and within each Faculty. 1.15. Design and implement a research development program and ongoing professional development opportunities for interested faculty 1.16. Provide collegial and information support to faculty pursuing advanced degrees 1.17. Define scholarship, research and creative activity in the disciplines represented at the university
Cultivate talent through research and innovation chairs	<ul style="list-style-type: none"> 1.18. Recruit, fill and onboard all vacant research and innovation chairs to align with the institutions research strengths and focus areas (Table 1). 1.19. Identify resources to establish new chairs and types of chairs (i.e. Industry chairs, co-funded community partner chairs) 1.20. Integrate the research and innovation chairs as SRCA mentors within the institution.

COLLABORATE AND BUILD CLUSTERS

Great things happen when inquisitive minds come together. The second investment area in this strategy is to facilitate collaborative relationships across disciplines within the University, with organizations and groups in society, and with academics at other universities across Canada and internationally. These investments will produce strong relationships and enhanced social capital resulting in the stimulation of new insights, discoveries and advancements.

Objectives	Actions
Encourage interdisciplinary collaboration in SRCA	<ul style="list-style-type: none"> 2.1 Facilitate and support interdisciplinary research courses. 2.2 Host gatherings to bring faculty together in conversation, learning and project work. 2.3 Promote the research themes and focus areas widely on campus to encourage collaborative inquiry. 2.4 Align all research and innovation chairs with more than one research theme. 2.5 Research and integrate best practices for interdisciplinary inquiry.
Support research clusters	<ul style="list-style-type: none"> 2.6 Engage Directors of centers, institutes and labs in dialogue and planning to determine their needs and priorities. 2.7 Determine alignment of all existing research centers and institutes with the research themes and identify new centers and institutes that are needed in the ecosystem. 2.8 Identify and obtain resources to invest in the development of research centers and institutes. 2.9 Profile the work of faculty and students involved in SRCA in the centers and institutes 2.10 Facilitate partnership development with external groups including university partners in BC, Canada and international contexts.
Develop collaborative research partnerships and networks with external entities and Universities	<ul style="list-style-type: none"> 2.11 Identify and secure current and forward thinking technological tools to enable faculty to profile their SRCA and to identify/establish networks externally. 2.12 Develop a visiting scholar, scholar/artist in residence program to foster relationships and collaboration externally. 2.13 Collaborate with external university partners to bring faculty, students and researchers into contact with one another through events.
Facilitate collaborative relationships with community/industry and international partners	<ul style="list-style-type: none"> 2.14 Bring faculty, staff and students out into the region for learning/collaboration visits. 2.15 Invite community, industry and international partners onto campus to introduce faculty and students to potential collaborators. 2.16 Map out and profile existing international partners to expand opportunities for engagement by faculty and students. 2.17 Secure funding to incent university-community partnerships and coalitions. 2.18 Provide training and resources to ensure mutually beneficial partnerships. 2.19 Develop institutional protocol for faculty who are interested in working with aboriginal communities in SRCA. 2.20 Initiate a community fellows program to connect additional intellectual capital in the region to the university.

CREATION OF KNOWLEDGE, INNOVATION, APPLICATIONS AND WORKS

The energy and enthusiasm generated by talented and curious people and collaborative teams must be supported by an infrastructure and systems to undertake scholarship, research and creative activity. The next investment area in this strategy is to provide access to the services and resources that are required in order to create knowledge, innovation, works and applications of scholarly endeavors.

Objectives	Actions
Provide a user-centered system of services for students and faculty to engage in SRCA	<ul style="list-style-type: none"> 3.1 Enhance awareness of services and supports for SRCA at VIU. 3.2 Evaluate existing processes to ensure they are user-centered and accessible for students and faculty. 3.3 Implement an online system to enable electronic submission and review of internal grant, research ethics, animal care and biosecurity applications. 3.4 Determine priorities and actions to address gaps in SRCA service provision.
Ensure the required resources to engage in SRCA are available and accessible across the institution	<p>Funding</p> <ul style="list-style-type: none"> 3.5 Revitalize the existing SRCA internal funding sources to align with the lifecycle approach to scholarship. 3.6 Identify and pursue external funding sources to make additional financial resources available to faculty and students. 3.7 Develop enhanced funding supports to enable student engagement in research. 3.8 Develop and promote an optional peer review process to elevate successful grant applications. <p>Space</p> <ul style="list-style-type: none"> 3.9 Identify and map out existing spaces and future requirements for SRCA at VIU campuses. 3.10 Create access for students to the SRCA office through the library. 3.11 Create state of the art spaces for research and research creation. <p>Equipment</p> <ul style="list-style-type: none"> 3.12 Inventory existing and desired equipment to enable SRCA at the institutional level. 3.13 Share the inventory of equipment and procedures for access/use. 3.14 Pursue external funding to purchase desired equipment needed for research. <p>Technology</p> <ul style="list-style-type: none"> 3.15 Identify technology requirements for faculty and students to engage in SRCA. 3.16 Invest in technology tools to support engagement in SRCA to address identified gaps. <p>Human resources</p> <ul style="list-style-type: none"> 3.17 Provide administrative support to Innovation and Research Chairs, Institutes and Centres and holders of Tri-Agency or Industry grants. 3.18 Develop a dedicated Research Opportunities Fund (a rebranded portion of Work Opportunities funding). 3.19 Promote alternatives for faculty to hire students as research assistants and share best practices on how to hire, train and supervise student researchers

COMMUNICATE KNOWLEDGE INTO THE PUBLIC REALM

When knowledge, works and applications are mobilized to audiences that can benefit from them, the learning benefits of scholarship, research and creative activity continue and expand beyond their originators. The fourth investment area in this strategy is aimed at ensuring the required supports are in place across the institution to communicate and mobilize the insights that emerge during the creation process. This will result in enhanced profile of our Faculty, students and the institution and contributions to disciplinary and societal knowledge.

Objectives	Actions
<p>Enhance the profile of VIU faculty and student SRCA by moving it into the public realm</p>	<p>Promotional tools</p> <ul style="list-style-type: none"> 4.1 Redesign the SRCA website with enhanced navigational support for undergraduate and graduate students 4.2 Work with Institutes and Centers to identify strategies to profile their work more prominently at VIU and within community 4.3 Utilize social media to increase awareness and sharing of VIU SRCA 4.4 Develop a digital map on VIU’s website of SRCA activities with supporting video and images 4.5 Visibly display SRCA on campus via poster boards 4.6 Develop a series of research stories for Shaw Cable to showcase VIU SRCA in the region <p>Annual reports</p> <ul style="list-style-type: none"> 4.7 Develop annual reports on SRCA outputs for faculty and students <p>Publications</p> <ul style="list-style-type: none"> 4.8 Encourage and support faculty and student success in publishing knowledge for a range of audiences. 4.9 Establish a VIU Press to provide opportunities for in house and peer reviewed publication opportunities for faculty, centers and institutes. 4.10 Establish an undergraduate research journal for VIU. <p>Events and performances</p> <ul style="list-style-type: none"> 4.11 Launch a speaker series with VIU faculty and students. 4.12 Host an annual research conference for faculty and VIU Institutes and Centers 4.13 Encourage and support on and off campus performances, exhibitions and demonstrations of creative work.
<p>Educate and support faculty and students knowledge mobilization initiatives</p>	<ul style="list-style-type: none"> 4.14 Develop educational tools on how to host/convene scholarly events at VIU campuses 4.15 Educate faculty about data management plans and open access policies. 4.16 Develop and implement an institutional policy to comply with the Tri-Agency Open Access Policy on Publications. 4.17 Enhance funding to support knowledge mobilization initiatives. 4.18 Invest in diverse technological tools to enable faculty to profile their SRCA and to enable internal and external reporting. 4.19 Expand lunch and learn opportunities for faculty and students to share their SRCA with the campus and external community. 4.20 Develop processes for domestic field schools with a research or outreach focus

CELEBRATE EXCELLENCE

The outcomes of scholarship, research and creative activity result in numerous and significant benefits for individuals and society. The contributions and achievements of those involved in these activities merit internal and external recognition. The final investment area of this strategy is to identify and recognize excellence in scholarship, research and creative activity undertaken by students, faculty and collaborative teams. This will result in a culture of celebration across the institution while profiling excellence.

Objectives	Actions
Create a culture of recognition and celebration of SRCA	5.1 Establish awards to recognize excellence in research and community engagement for faculty and students. 5.2 Expand CREATE to a week-long celebration of research for students. 5.3 Create an annual event to celebrate SRCA by faculty, Centers and Institutes. 5.4 Announce and profile internal and external funding recipients. 5.5 Encourage and nominate faculty and students to apply for external disciplinary awards of excellence.

CROSS-INSTITUTIONAL APPROACH TO IMPLEMENTATION

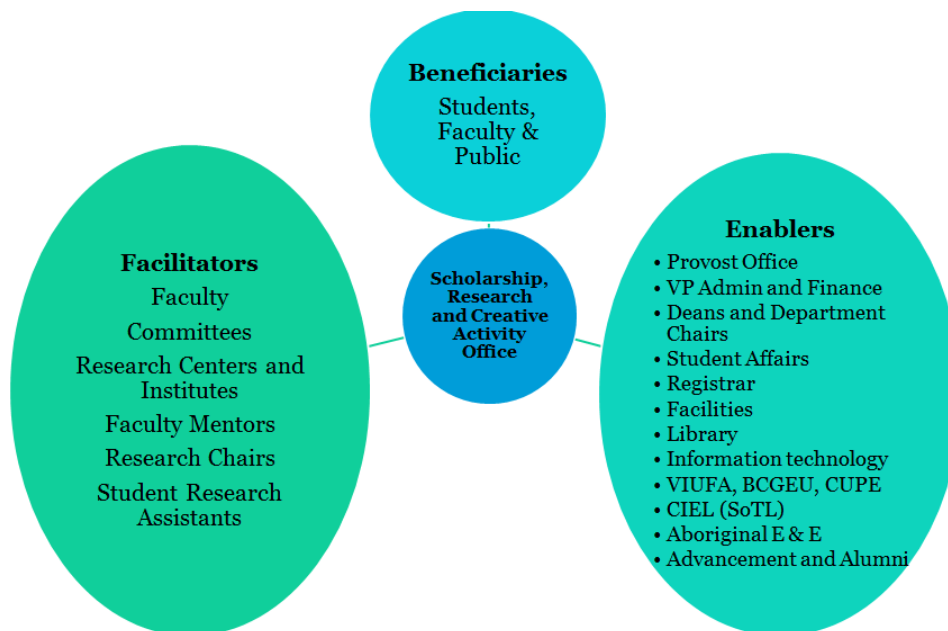


Figure 2: Collaborative, cross institutional approach

This plan will be implemented using a collaborative, cross-institutional approach (figure 2) that incorporates the resources and expertise in VIU's enabling and facilitating bodies. The SRCA office will develop an implementation plan, identify and secure resources, coordinate initiatives among institutional bodies, and monitor progress on the plan.

RESEARCH STRENGTHS AND FOCUS AREAS



Figure 3: Research strengths and focus areas at Vancouver Island University

Vancouver Island University is a comprehensive teaching focused institution with a diverse range of interests and expertise. As such, our research focus areas reflect an inclusive sphere of interdisciplinary themes that align with existing strengths and priority areas of the institution and region. Figure 3 illustrates the seven areas of research strength and focus for VIU.

HEALTH, RESILIENCE AND WELL-BEING

This research theme focuses on the study of human and environmental health with the aim of improving the adaptive capacity of humans and systems such that greater levels of resilience and well-being are achieved. This theme is a strength at the institution and enables researchers from numerous disciplines to engage in disciplinary or interdisciplinary inquiry. This theme aligns with the Academic Plan which identifies issues that will be critical to communities in the Vancouver Island and coastal BC region such as understanding regional demographic changes, identifying future health and human services, monitoring the impact of globalization and the condition of the natural environment, determining the effects of climate change and transitioning from fossil fuel dependence, encouraging greater levels of food security and promoting beneficial urban and regional development.

Examples of strengths and strategic investments

1. **Resilience Research Lab.** This lab is one of the research labs operating out of Psychology. The lab supports student-led research and builds connections within the community. Research projects investigate resilience in local and international contexts. The lab is working to build a Western Resilience Network to contribute to interdisciplinary dialogue on resilience. Examples of past projects include a focus on resilience in families affected by AIDS in

Uganda, the promotion of resilience in family practice residents, adolescent mothers, and adults living with Celiac disease.

2. **Centre for Healthy Aging and Community Engaged Scholarship.** This centre was established in 2013 with the mandate to promote excellence in healthy-aging research, education and practice. The Centre has a special focus on senior's health care improvements, active and productive aging and the creation of age-friendly communities. The Centre is aligned with the Faculty of Health and Human Services, Oceanside Healthy Aging Initiatives Committee, older adults and their caregivers, the municipalities of Parksville and Qualicum Beach and a diverse range of seniors' organizations and health care practitioners. The Centre has offered a series of research networking luncheons and sessions to stimulate community dialogue.

INTEGRATED SCIENCES, TECHNOLOGY AND ENVIRONMENT

Vancouver Island University has continuously promoted the development of research centers that provide the necessary synergistic atmosphere in which scientists and technologists from different field can use new approaches to tackle complex issues. In the past decade, research centers and institutes have emerged in areas such as analytical mass spectrometry and environmental chemistry, shellfish aquaculture and genomics, and sturgeon research. Through the establishment of these centers, VIU has developed expertise that is both regionally relevant and internationally significant.

Examples of strengths and strategic investments

1. **Applied Environmental Research Laboratories (AERL).** This lab is an internationally recognized research facility that conducts pure and applied research in analytical mass spectrometry and environmental chemistry. The group develops innovative strategies for the measurement of chemical determinants of environmental and human health. The work is on the leading edge of an evolution in bringing high precision, real time chemical measurements to the sample rather than bringing "grab samples" to the lab. The facility has trained undergraduate to post-doctoral level students. This work involves collaborations with numerous regional, national and international partner in academia, government agencies and the private sector. AERL's platform technologies have proven revolutionary to the field of environmental monitoring and are now being utilized to solve current and challenging issues related to human health.
2. **Centre for Shellfish Research (CSR).** This center facilitates the development of a vibrant, science-based shellfish aquaculture industry as an economic engine to revitalize economies throughout BC coastal and First Nations communities. With support from major infrastructure funding from the CFI, British Columbia Knowledge Development Fund ((BCKDF) and Western Economic Development (WED) as well as other public and private funders, VIU has created infrastructure to support and carry-out academic and applied shellfish research in its main Nanaimo campus in addition to the state of the art Deep Bay Marine Field Station. Located in Baynen Sound, the DBMFS is at the heart of shellfish production in BC and dedicating its activities to shellfish aquaculture and environmental research. These capital investments are augmented by ongoing operational support for these facilities. The CSR has facilitated collaborative partnerships between industry, communities, government and academic that have led to a vibrant research program that advances knowledge globally while meeting regional needs.
3. **International Centre for Sturgeon Studies (ICSS).** This centre is a knowledge and innovation hub for sturgeon research in Canada. Sturgeon has a worldwide reputation as a premium food product (caviar and flesh) and an exceptional sport fish, and attracts considerable public appeal as a "living fossil". VIU has been at the forefront of white sturgeon aquaculture since 2001 when it spawned captive broodstock and began supplying eggs to the first commercial operator. The ICSS facility at VIU was funded by CFI and BCKDF investments and supports research with outcomes that can be applied in support of both sturgeon conservation initiatives and aquaculture development. VIU hosted the 2011 World Sturgeon Conservation Society North America chapter meeting and the

2013 International Sturgeon Symposium and has hosted a post-doctoral fellow and trained numerous undergraduate and graduate students in addition to hosting post-doctoral fellows and visiting researchers.

RESILIENCE OF ISLAND, COASTAL AND RURAL REGIONS

VIU is located in an island and coastal region comprised of mostly rural communities who have been experiencing numerous and significant shifts due to globalization, climate change, demographic shifts, and population migration. These shifts have presented opportunities and challenges for the region, pressuring it to adapt and remain resilient. This research focus area will enable researchers to study the realities, adaptive responses and consequences of people, communities and organizations in island, coastal and rural regions. The research outputs will inform regional planning, management and development while contributing the growing literature on resilience in numerous disciplines.

Examples of strengths and strategic investments

1. **Mount Arrowsmith Biosphere Region Research Institute (MABRRI).** This institute supports the UNESCO designated Mount Arrowsmith Biosphere Region through engaging in research that focuses on the human/nature connection. More than 60 undergraduate and graduate students in the past three years have been connected to community-based, applied research through MABRRI that involves mid-Island citizens in issues of regional relevance. The Institute has also attracted visiting international researchers from Brazil, Mexico, and Macedonia, and publishes the Journal of International Biosphere Reserve Research. MABRRI harnesses the knowledge of the MABR community and the interdisciplinary strengths of students and faculty at Vancouver Island University to respond to questions that advance environmental, economic and social (including cultural and spiritual) sustainability.

INNOVATION, ENTREPRENEURSHIP AND SOCIAL CHANGE

The rapid and widespread changes taking place in the public, private and not for profit sectors to innovate, create economy and better society provide important opportunities for research. This research theme will enable researchers to identify and monitor changes in the business and management models used across sectors as well as the associated outcomes of innovation and social change. When mobilized, the knowledge outputs will result in advancements and improved practices in a range of non-academic setting as well as the rapidly expanding literature in numerous disciplines.

Examples of strengths and strategic investments

1. **World Leisure Centre of Excellence in Sustainability and Innovation (WLCE).** The WLCE in Sustainability and Innovation was established as partnership between VIU and the World Leisure Organization (UNESCO affiliate status) in 2009. The WLCE brings together established and emerging scholars from around the globe to share innovative ideas, engage in dialogue and collaborate in research and teaching. The themes of the Centre include: 1) Sustainability: Questioning the relationship between leisure and sustainability, determining the level of sustainability of the leisure industry and inviting and monitoring new models and approaches to enhance sustainability, 2) Innovation: Rethinking the systems and structures that have evolved across the globe, creating a culture of innovation where new ideas emerge and flourish, and measuring the impact of innovation on sustainability efforts. The Centre has brought in over 30 world renown visiting scholars since 2010, convened over 50 public lectures, published an annual volume of case studies, and supported over 60 Masters student's in thesis research.

CULTURAL, HERITAGE AND CREATIVE EXPRESSION

This thematic area deepens inquiry and creative activity to explore the various ways a culture, or cultures, use or have used literary, political, social, and artistic forms of creative expression. Exploration is done through the examination of and analysis of texts and images, the restoration and presentation of works of art, the critical evaluation of elements of historical and modern culture, the theory informed study of past human activity and the creation of new knowledge and art and its performance.

Examples of strengths and strategic investments

1. **Canadian Letters and Images Project (CLIP).** The Canadian Letters and Images Project is an online archive of the Canadian war experience, from any war, as told through the letters and images of Canadians themselves. Begun in August 2000, the Project is located in the Department of History at Vancouver Island University. Through the digitization of contemporary letters, diaries, photographs, and other related materials, the Project permits Canadians to tell their story, and Canada's story, through their own words and images. It is history without a lens of interpretation by the present.
2. **Humanities Interdisciplinary Research Group.** This group functions as a think-tank to investigate the interdisciplinary and transdisciplinary research models and methodologies that are currently being applied within the humanities, with a focus on cultural, theoretical, literary-critical and digital humanities approaches. The Group provides analysis and meta-commentary concerning the viability and/or necessity for using inter/transdisciplinary approaches asking questions concerning the effectiveness, applicability, and importance of inter/transdisciplinary approaches in relation to research within the humanities.

EQUITY, DIVERSITY AND SOCIAL JUSTICE

As a values based institution, VIU is committed to respect, diversity and to promoting respectful, informed discourse about reciprocity and reconciliation as identified by the Truth and Reconciliation Commission of Canada Calls to Action. Issues of equity, diversity and social justice have gained elevated importance and urgency in recent years in order to ensure that access to social and economic resources are provided to everyone, regardless of race, ethnicity, culture, gender, sexuality or social class. Researchers studying in this area advance knowledge and inform practice on equity and social justice issues.

Examples of strengths and strategic investments

1. VIU's **Centre for Community Outreach and Care** was established in April 2013 by the Child and Youth Care Department at Vancouver Island University to provide enriched practical learning experiences for Child and Youth Care students in partnership with the Harewood community to engage in child and family focused activities Under the educational direction of faculty, students complete research with community partners to identify needs and design projects that address these needs. Faculty and student teams have led a wide range of activities for the Centre including projects related to youth mental health; queer, transgender and transitioning youth; and awareness of social justice issues.
2. **Centre for Pre-Confederation Treaties and Reconciliation.** In 2014, Vancouver Island University (VIU) established a Centre for Pre-Confederation Treaties and Reconciliation to focus on advancing research, understanding, and public dialogue in relation to Pre-Confederation Treaties from across the country and the challenge of reconciliation. The Centre provides leadership and education through advanced research, symposia, publications, and facilitation of dialogue regarding Pre-Confederation Treaties and Reconciliation.

TEACHING AND LEARNING

The teaching and learning focus area will support and enable faculty inquiry into teaching practices across the disciplines and within local and international contexts. This inquiry has practical value in that it enhances the learning experiences of students, while enabling faculty to continuously improve their teaching practices. Engaging in scholarly reflection and inquiry also allows faculty members to explore ways to reflect upon their practice, obtain evidence of their impact on student learning and make informed decisions about next steps for enhancing learning experiences. Faculty inquiry and reflection also has scholarly value to external audiences when it is shared beyond the University. This focus area will enable VIU to make significant contributions to and position itself as a leader in the scholarship of teaching and learning.

Examples of strengths and strategic investments

1. **Graduate programs in the Faculty of Education** are designed to be flexible and accessible to meet the needs of working teachers who want to pursue higher education and result in over 100 graduate students engaged in action research thesis projects each year. This is a fertile ground for Faculty to engage in community partnerships which have led to provincially and internationally funded projects. A Master's of Education Research Conference has been running for 6 years providing knowledge mobilization opportunities for over 30 student presenters and 100 attendees (students, faculty and community members).
2. **The Centre for Innovative Leadership** has lead numerous initiative such as the 3 Campus Project (Phase 1, 2015-2016) is a formalized learning partnership among the BC Ministry of Education, three BC Faculties of Education, and numerous BC school districts across the province. The aims of the 3 Campus project are: a) intensively support education transformation, b) Experiential exploration, implementation, research, and documentation of BC's education transformation.
3. **The Centre for Innovation and Excellence in Learning** (CIEL) provides a suite of capacity building offerings to enhance student learning including faculty consultations, curriculum mapping activities and teaching enhancement programs, along with a rich collection of resources including timely technology and pedagogy support. VIU has played a significant leadership role in the BC Campus Scholarly Teaching and Learning in Post-Secondary Symposium where faculty from across the province mobilize scholarly reflection and inquiry.
4. **International Education.** VIU supports a diverse student population including over 1,800 international students who engage in programs across the institution. Faculty and students are actively engaged in a number of international research projects and collaborations with university partners around the world. These established networks and the investments that the institution has made in services and supports have established significant opportunity for SRCA to emerge in topics such as international education, international development, and cross cultural awareness and competence.
5. **Aboriginal Education and Engagement.** VIU has made a strong commitment to take action on Truth and Reconciliation to ensure that access to education enables healing among Canada's indigenous peoples. Approximately 1500 aboriginal students are enrolled at VIU and the institution has taken a leadership role in providing resources and supports to enable the number of students accessing the institution to increase. The innovative approaches being used to break down barriers for aboriginal students and ensure their success provide significant opportunities for SRCA. Half of the research and innovation chairs have a mandate to investigate issues of significance for indigenous peoples which will enable VIU to provide leadership in the co-creation of knowledge moving forward.

RESEARCH AND INNOVATION CHAIR ALLOCATIONS

Research and innovation chairs are key positions that contribute to research excellence at VIU. The chairs provide leadership in the institution and community, build external collaborations and partnerships, strengthen teaching and learning, and enhance contributions to institutional research themes. Vancouver Island University currently is allocated four Tier 2 Canada Research Chairs and two BC Regional Innovation Chairs. The titles of these chairs, their current status and alignment with institutional research areas are denoted in Table 1 and a short description of each chair follows.

Table 1: Research and Innovation Chairs at Vancouver Island University by type and research focus area

CHAIR TYPE	CHAIR TITLE	TIER	RESEARCH DISCIPLINE	CURRENT STATUS	GRANTING AGENCY	RESEARCH STRENGTH AND FOCUS AREAS
Canada Research Chair (CRC)	Shellfish Aquaculture/Genomics	2	Evolution, genetics, breeding and environmental adaptation	Nomination stage	NSERC ¹	<ul style="list-style-type: none"> Integrated sciences and environment Resilience of island, coastal and rural regions
Canada Research Chair (CRC)	Leisure, Sustainability, Wellbeing and Resilient Communities	2	Leisure and Community Development	Nomination stage	SSHRC	<ul style="list-style-type: none"> Health, resilience and wellbeing Innovation, entrepreneurship and social change
Canada Research Chair (CRC)	History of Indigenous Women's Health	2	History, health, indigenous knowledge	Recruitment stage	SSHRC	<ul style="list-style-type: none"> Equity, diversity and social justice Cultural, heritage and creative expression
Canada Research Chair (CRC)	Community Based Research in Education	2	Education, indigenous knowledge	Recruitment stage	SSHRC	<ul style="list-style-type: none"> Teaching and Learning Equity, diversity and social justice
BC Regional Innovation Chair (BCRIC)	Aboriginal Early Childhood Development	2	Childhood development, education, indigenous knowledge	Filled	BC LEEF/BCIC	<ul style="list-style-type: none"> Teaching and Learning Equity, diversity and social justice
BC Regional Innovation Chair (BCRIC)	Tourism and Sustainable Rural Development	2	Economic development, sustainability, tourism management	Recruitment stage	BC LEEF/BCIC	<ul style="list-style-type: none"> Resilience of island, coastal and rural regions Innovation, entrepreneurship and social change

¹ NSERC is the acronym for the Natural Sciences and Engineering Research Council of Canada, SSHRC is the acronym for the Social Sciences and Humanities Research Council of Canada, BC LEEF is the acronym for the BC Leading Edge Endowment Fund now administered by the BC Innovation Council.

DESCRIPTION OF RESEARCH CHAIRS

BC REGIONAL INNOVATION CHAIR IN ABORIGINAL EARLY CHILDHOOD DEVELOPMENT (AECD)

The vision for the AECD Chair is to strengthen the local and cultural relevance of education for ECD practitioners that would enhance promising practice, and to create new opportunities to develop innovative, high quality, locally relevant, community-based programs and services that will positively influence the holistic development of Aboriginal children, families, and communities. The collaboration between VIU, First Nation communities and Aboriginal organizations and agencies holds great promise for strengthening educational preparation and professional development of ECD practitioners and will ultimately positively influence the health and development of children and families in Aboriginal communities.

BC REGIONAL INNOVATION CHAIR IN TOURISM AND SUSTAINABLE RURAL DEVELOPMENT

The vision for the BC Regional Innovation Chair in Tourism and Sustainable Rural Development is to support the sustainable introduction and development of tourism in BC's rural communities through collaboration with industry, community and government. The initial Chair (2008-2017) established a research program that supplied evidence and support tools to stakeholders in rural communities as well as expertise on rural policy in provincial and federal government. The Chair works through a network of academic partners across the province and internationally enabling VIU to position itself as a leader in issues related to rural sustainability, tourism development, amenity migration, and the artisan economy.

CANADA RESEARCH CHAIR IN SHELLFISH AQUACULTURE/GENOMICS

A Tier-2 Canada Research Chair (nomination stage) will assist VIU in achieving its future goals of increasing the level of applied research through public-private partnerships, developing sustainable aquaculture, improving BC's resilience and food security in light of the effects of global warming and ocean acidification and will lead to significant innovation in the field of shellfish health and genomics.

CANADA RESEARCH CHAIR IN LEISURE, SUSTAINABILITY, WELLBEING AND RESILIENT COMMUNITIES

A Tier-2 Canada Research Chair (nomination stage) will address issues and areas of particular importance to VIU's communities such as the promotion of healthy aging and aging in place; poverty and its impact on wellbeing; development of sustainable, diversified economies; the attraction and retention of younger citizens; and the promotion of recreation and tourism.

CANADA RESEARCH CHAIR IN COMMUNITY BASED RESEARCH IN EDUCATION

A Tier-2 Canada Research Chair (interview stage) in Community-Based Research in Education with a focus in Aboriginal Community Engagement and/or Healthy and Resilient Communities aligns with the thematic areas of teaching and learning and equity, diversity and social justice. This CRC will bring expertise in the methodological area of Community-Based Research, or community-based participatory research, or action research applied in education/learning contexts.

CANADA RESEARCH CHAIR IN HISTORY OF INDIGENOUS WOMEN'S HEALTH

A Tier-2 Canada Research Chair will explore research topics related to understanding the historical context and addressing health issues that aboriginal women face stemming from the circumstances and events of colonization and the imposition of European patriarchal systems on indigenous communities. Some of these include holistic questions related to traditional livelihoods, self-sufficiency, economic and social marginalization, violence, oppression and healing.

ENDNOTES

ⁱ *Action #5: Develop a robust and innovative student scholarship, research and creative activity environment that will facilitate student success.*

ⁱⁱ *Strategic priorities #12, and 14.*

ⁱⁱⁱ *For example, Arts and Humanities Strategic Plan 2014 and Faculty of Social Sciences Strategic Plan 2014-19*

^{iv} *Definition originally from the UNC Asheville: 3.0 Faculty Rights, Responsibilities and Evaluations.*

^v *Boyer, E.L. (1990) Scholarship reconsidered: Priorities of the Professoriate, Carnegie Foundation for the Advancement of Teaching.*

^{vi} *Statement on Scholarship: Vancouver Island University, approved by Senate, October 4, 2012.*