

PROPOSAL
TO DEVELOP A SCHOOL OF
ENVIRONMENT, HEALTH AND SOCIETY
AT VANCOUVER ISLAND UNIVERSITY



VANCOUVER ISLAND
U N I V E R S I T Y

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Background

This report has been prepared following extensive multi-year conversations, particularly between Dr. Craig Stephen and Dr. Dave Witty. Dr. Stephen of the Centre for Coastal Health (CCH) was the principle author of a detailed proposal which formed the basis for this report¹. The idea for a School of Environment, Health and Society emanates from conversations about VIU's Academic Plan, the Regional Action Plan (and role and use of the Deep Bay Field Station) and VIU's Niche.

It is apparent that there is an opportunity to integrate collective knowledge with collective action by addressing the complexity of environment, health and society issues through a perspective that is framed by connectivity and complementarity. That perspective requires an 'interproblematic approach' with a focus on coastal communities and small communities of Vancouver Island as a 'living laboratory' that allows for a linkage to 'wicked' problems that are encountered in the world's coastal communities. The School will be tasked with managing that diversity of interests and needs.

The School in Brief

Purpose of the School of Environment, Health and Society

To create highly qualified leaders able to work with others to find innovative solutions to the challenge of maintaining healthy and sustainable communities by researching, servicing and/or teaching about the co-dependence of healthy environments and healthy societies.

Overview of the School

The School will be a cross-departmental, cross-disciplinary unit that allows for teaching, service, and research to be focused toward a shared theme relevant to a variety of faculty, students and external partners. The School will facilitate research, service and education within and between VIU faculty and with external partners and communities. The School will focus on applied research and services to help smaller and coastal communities primarily within British Columbia maximize their well-being, resilience and sustainability through evaluating, managing, and cultivating positive interactions with their environment. This scope provides a venue to invite a wide variety of existing VIU interests and centres.

The three pillars of the School will be Education, Applied Research and Service.

Education: A Master's program, more akin to an MBA or MPH, will be offered along with a summer institute targeting experienced people in the work force interested in gaining skills and knowledge to work collaboratively, in a multi-disciplinary environment to generate and mobilize information for action. Post-doctoral positions will build the School's human capacity while providing trainees with unique research and teaching experiences.

¹ Dr. Stephen and Dr. Carl Ribble and Jennifer Dawson of the Centre for Coastal Health were retained by the Provost's Office to develop this concept. They are the principle authors of this work which has been edited by the Provost for internal and external distribution.

Applied Research: The School will play 3 research roles: (1) Guided research on themes related to decision making and new technologies in order to create and share knowledge that sustains healthy communities and environments; (2) Facilitate research awareness and collaboration among VIU faculty and Centres working within the School's sphere of interest; and (3) Help develop policy and practices at VIU to enable growth of a research culture.

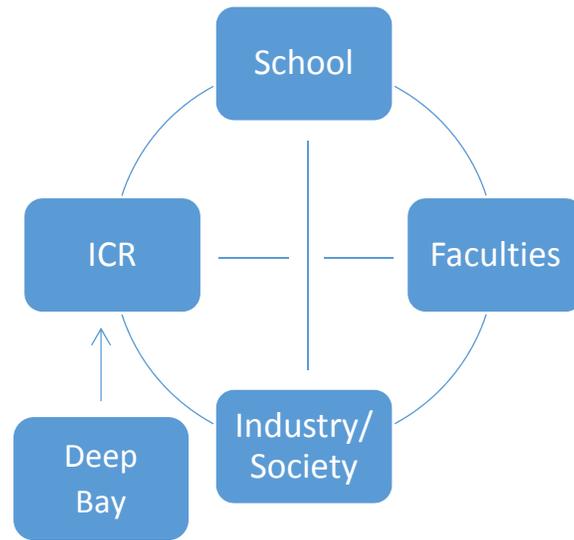
Service: The School will emphasize mobilizing knowledge and skills towards capacity building and problem solving by creating means to share and exchange information with stakeholders, communities and decision makers. This will include directing a College of Fellows to provide insight into novel ways of managing coastal health issues, hosting opportunities for knowledge exchange, helping communities identify needs, and facilitating publication of School outcomes.

Guiding concepts of the School

The School will have a special focus on coastal communities but will promote scholarly activity and education relevant to society-health-environment interactions regardless of their geographic location. The School will support training, research and service in the realms of leadership, governance, collaboration, knowledge mobilization, and the disciplinary skills needed to create the next generation of highly qualified people to enable them to plan the policies and actions needed to cultivate and sustain resilient communities and healthy environments. Developing scholarly means to include Aboriginal perspectives and learners will be a central focus.

The School will adapt key concepts from the healthy community movement to formulate its strategic direction including the following **Founding Principles**:

- Principle 1: A commitment to supporting healthy and resilient communities, wherein we consider the need for human and non-human communities to co-exist in a sustainable fashion;
- Principle 2: Recognition of the importance of enabling good decisions and policy to allow for ideas to be turned to action through policy relevant research, knowledge mobilization and education (both formal and informal);
- Principle 3: Commitment to Intersectoral action inside and out of VIU as required to protect and promote healthy communities. This includes partnering with community members, First Nations, VIU Centres and others in education, research, service;
- Principle 4: Support for and promotion of innovation and excellence in education, research, service to create new insights and capacities for smaller communities to manage their relation with the world around them, and to promote sustainable, resilient and healthy human and non-human communities; and
- Principle 5: Advocating and developing scholarly means to include Aboriginal perspectives and learners in the School's work.



Driving forces

The School was conceived in response to the following internal and external driving forces:

1. VIU's transition that began with its designation as a Special Purpose University encourages the creation of special purpose post-graduate education experiences and enhanced opportunities for faculty to be engaged in applied scholarly activity;
2. An institutional desire to develop a distinctive niche for VIU that distinguishes it from other BC post -secondary institutions;
3. An institutional focus on incorporating Aboriginal perspectives and knowledge into learning and supporting post-secondary opportunities for First Nations learners;
4. A cohesive strategic direction to take advantage of the growing infrastructure and human capacity at VIU and support VIU's Regional Action Plan;
5. A unique program to attract students outside of VIU's catchment area while serving local educational and service needs;
6. A desire to develop flexible learning opportunities that could meet the needs of a diverse set of learners;
7. A workforce trend projecting the need for flexible knowledge workers and leaders who can work in multidisciplinary teams; and
8. Recognition in government and society for the need for people able to work horizontally across disciplines and perspectives and effectively manage teams towards the achievement of critical policy goals.

Why a School?

The increasing demand for horizontal or interdisciplinary research, policy or practice in recent years has spawned questions regarding the best way to organise programs and how to best train new researchers and practitioners in ways that will catalyze novel discoveries or innovative practice. A consistent conclusion is that people from different disciplines need to work closely together but retain connection to their disciplinary foundations. A school can provide the common place where people from established disciplines can bring together their theories and methods and combine them in pursuit of new knowledge in an interdisciplinary fashion.

Although goal-oriented research lends itself easily to interdisciplinary work, post-secondary institutions in Canada are not traditionally organized to conduct research this way (Hall et al., 2006). Progress has been made to rectify this situation by creating innovative structures such as Schools and Institutes (Hall et al., 2006). A School is a non-partisan academic body created for a certain purpose that may exceed the disciplinary boundaries of any one department or Faculty. Members of the School work in concert to fulfill the School's mission but can find their academic home in other departments or even outside of the university structure. The School acts as a mechanism to bring together diverse interests to a common cause. A School provides added value over and above individual research or teaching programs.

Schools can support faculty recruitment and retention, facilitate collaboration, provide a focus to secure resources, offer a sense of community, promote continued learning, and afford organizational flexibility. As an administrative unit, a School can use its own governance structure and budget to work towards a strategic direction without being limited by the discipline-based boundaries that define academic departments. But, Schools can provide additional opportunities to faculty from those departments that collaborate with the School. To minimise competition for scarce resources, proper planning and governance are needed to reduce the potential for rivalry between a new School with existing departments over resources or missions.

External Environment Influences on the School

Trends in Research, Policy and Practice

Complex, severe, and in a word “wicked” problems spanning the interface between health, society and environment are likely to grow as the world faces issues such as accelerating environmental change, urbanization and population growth. One of the fundamental challenges of addressing the myriad of resulting problems that span the health-society-environment interface is that there is often not a readily available way to identify, gather and mobilize the required knowledge. No single solution prevails and shared foresight, negotiation, compromise and co-planning are often required to turn research outcomes into societal action. Disciplinary research has helped identify what might happen, but it has fared less well in supporting decisions on what we might do to adapt, prevent or become resilient to effects of environmental change (Cohen, 1997).

Policy makers are increasingly faced with problems that require collective action. British Columbia can anticipate the need to make tough decisions in the upcoming decades on how best to manage conflicting needs, goals and uncertainty at the health-society-environment interface (e.g. climate change adaptation; impacts of natural resource use on First Nations traditional food security). A recognized impediment to integrating environment, health and community into a single comprehensive approach is **the lack of experienced leaders and practitioners** capable of managing the entire range of issues involved (Briggs, 2008). Intersectoral initiatives outweigh the capacity of government departments to manage (Lindquist, 2012). In the new governance and fiscal environment, we need a new round of systematic approaches, focusing on specific domains and case studies, to ascertain how governments can manage horizontal challenges and initiatives, and to better conceptualize and understand the nature of progress (Lindquist, 2012).

If academia is serious about developing interdisciplinary research, it needs to begin with the foundational academic activities of teaching and research training (Hall et al., 2006). Canada needs a cadre of trained interdisciplinary practitioners and leaders equipped with practices that enable them to mobilize cross-sectoral information to help make policy decisions about problems at the health-society-environment interface. Health-environment issues are transboundary, multi-sectoral, and intercultural, thereby requiring people who are comfortable and capable in integrating social and natural sciences with community and Aboriginal knowledge in a common approach to produce mutual learning. Developing these skills sets requires new capacity and networks supported by leadership for cross-sectoral problem solving, as well as new opportunities to achieve greater collaboration between the institutions responsible for risk management and the affected stakeholders (Crosby and Bryson, 2005; Bhati and Wernham, 2008). **The School will aim to create a cohort of skilled leaders and practitioners able to work across disciplines to support decisions affecting prevention, adaptation or resilience to changing pressures at the health-society-environment nexus.**

Problems confronting government, industry and community decision makers today typically span borders, and require multiple players and multi-disciplinary views to arrive at meaningful solutions. The Public Service of Canada has recognized that the days when problems were easily defined and solved within disciplinary silos are gone (Baird and Green, 2008). Now and in the future, solving problems in the public interest will demand different behaviours, skills and institutional arrangements from public services and all parts of civil society. Many issues require empowered and local leadership, continuous and open information-sharing and greater uses of shared accountability (Baird and Green, 2008).

Governments have started to develop and apply inter and cross-disciplinary approaches. For example, a collaborative, consultative, multi-disciplinary approach underlies Environment Canada's Science Plan intended to help the agency become more proactive (Environment Canada, 2007). The Public Health Agency of Canada (ex. implementing the 2007-12 Strategic Vision of better linking between environment and health) and Fisheries and Oceans Canada (ex. responding to the Cohen Commission of Inquiry) are two other national actors that can immediately benefit from a network of connected interdisciplinarians committed to mobilizing integrated information to support policy decisions. This need exists internationally as well. For example, a United Nations collaboration on shared responsibilities and global activities to combat disease at the human-animal-environment interface aims to consolidate the currently fragmented efforts in order to get deeper and sustainable political support for coherent action between the public and policy makers and to develop joint interventions to protect human health from emerging environmental harms (FAO, OIE and WHO, 2010). Integrative knowledge mobilization (KM) is also needed at a local level. For example, the District of Ucluelet, BC has a "*Smart Growth Strategy*" that requires consideration and collaboration across the health, social and environmental domains (Green Communities Committee and Fraser Basin Council, 2014).

Educational Priorities and Trends

As the need for higher education increases and the population ages, more people are seeking graduate training and continuing education to expand their qualifications through innovative means of solution-oriented training that can be accessed in classes, on-line or in the community. The Council of the Federation (which comprises Canada's 13 provincial and territorial Premiers') has formulated a vision and recommendations for post-secondary training (Council of the Federation, 2006). Amongst their priorities and strategies are: (1) Improved access to post-secondary education; (2) support for research and development in order to encourage more graduate school recruitment and encourage innovation; (3) facilitated transitions from postsecondary education and skills training to work; (4) increased flexibility of programs and services to ensure they are accessible to both rural and urban businesses, and responsive to the needs of both workers and employers; and (5) harnessing the potential of Canadians who are already in the workforce. Planning for a virtual or off-campus component to the School and the ability to complete major parts of the program while still at work could allow the School to address the Premiers' strategies.

The growing interdisciplinary commitment of government supported research funding in Canada is readily apparent (Hall et al., 2006). For example, the current strategic plan for the Canadian Institutes for Health Research (CIHR) includes investment in and support to foster interdisciplinary environments that will appeal to the best international scholars and experts (Canadian Institutes of Health Research, 2009). The Collaborative Health Research Projects (CHRP) program (a joint initiative between the Natural Sciences and Engineering Research Council (NSERC) and the CIHR) exemplifies this priority. The CHRP program encourages interdisciplinary collaborative research projects involving the natural sciences or engineering community together with the health sciences. The goals are to advance interdisciplinary research that lead to knowledge and technologies that are useful for improving the health of Canadians and to train highly qualified personnel in collaborative and interdisciplinary research relevant to health.

The majority of NSERC's grant programs (but not the majority of grants funding) specifically encourage, or require, interdisciplinary research, and use interdisciplinary peer review thinking. NSERC's Advisory Group on Interdisciplinary Research concluded that interdisciplinary research is not something that always happens spontaneously or easily. Members agreed that barriers to interdisciplinary research could be barriers to innovation and creativity. Interdisciplinary research is seen as a means to help individuals and organizations develop and adopt new ways of operating and thinking (Natural Sciences and Engineering Research Council, 2002).

The Social Science and Humanities Research Council (SSHRC) Working Group's Report points out that humanities research is changing and SSHRC must respond to those changes. Increasingly, humanities scholars conduct applied, collaborative and interdisciplinary research (SSHRC, 2001). One way SHRC has addressed this need is the Canadian Environmental Issues Priority Area which supports and builds social sciences and humanities research, training and knowledge mobilization that contributes to an enhanced understanding of, and practical solutions for, pressing Canadian environment and sustainability issues, particularly related to interactions and interdependencies between the environment, economy, society and culture.

The UBC Centre for Policy Studies and Higher Education reflection on the Campus 2020 report noted that collaborative and interdisciplinary research at British Columbia's post-secondary institutions was needed for concrete contributions to the quality of civic life (Centre for Policy Studies and Higher Education, 2007). Further, they recommended that British Columbia's long-term development will required a better distribution of research capacity across the province, and across institutional types.

There is growing interest in providing educational experiences that provide First Nations cross-cultural experiences that bridge Indigenous approaches to learning and knowledge with Western approaches. Historically, many Aboriginal learners have not separated health, environment and society. Thus, the proposed School could be a means to address the vision and goals of the Accord on Indigenous Education prepared by the Association of Canadian Deans of Education (ACDE) (ACDE, 2010).

External Gaps and Competition

In order to determine whether a School of Environment, Health and Society is a distinctive niche for VIU, CCH conducted a web-based, keyword guided search for post-secondary institutions promoting scholarly activity and education relevant to society-health-environment interactions (especially programs that offered skill sets and knowledge outcomes for graduate level learners to work collaboratively in a multi-disciplinary environment). The search focused most intensively on British Columbia, with lesser emphasis on elsewhere in Canada. CCH found that no post-secondary institutions, including VIU, offered a program similar to what is proposed².

There are post-graduate institutions in Canada that offer advanced degrees in interdisciplinary education and research under the realm of environment, public health and sustainable development. Many of these programs are heavily focused on one discipline or theme and do not fully encompass society-health-environment interactions or linkages. Some graduate programs related to public health did offer skill set outcomes to work in multi-disciplinary environments but they did not fully address the complexity of society-health-environment interactions and the associated obstacles for supporting healthy and resilient communities. But there are no programs identical to what is proposed by the School. Although the general themes of the School are found in many programs, none integrate all of the proposed School's elements. Most unique to the proposed School is the emphasis on 'higher level' skills in problem solving and less of a focus on specialized subject/content specific learning; coupled with an emphasis on knowledge mobilization and applied inquiry. None of the Schools found appeared to emphasize First Nations learning or teaching.

² VIU has some components for the School in place or planned (see the section below; "Internal Environmental Assessment – Complementary or Competing Activities").

Internal Environment Assessment

Vision and goals

The purpose of the School of Environment, Health and Society is in keeping with many VIU goals and values referenced in the Academic Plan including promoting a high quality of life for communities through commitment to student success, community engagement and associated scholarship. The School is consistent with the **VIU core value** of supporting “a healthy sustainable environment through progressive operational practices and promotion of environmental awareness.” Furthermore, it supports VIU’s **Regional Action Plan’s** Sustainability Policy that establishes VIU’s commitment “to explore the path to environmental, cultural, social, and economic sustainability in the region”.

Much of VIU’s catchment area and many small coastal communities, continue to be reliant on economic and cultural services from natural resources. The strategic context of the Ministry of Advanced Education 2013/14-2105/16 Service Plan recognizes the goal of the Provincial Government of creating long-term jobs and investment in B.C. by focusing on eight key industry sectors: forestry; mining; natural gas; agrifoods; technology (including clean technology); tourism; transportation; and international education. Graduates of the School will be well suited to support BC coastal communities and able to address these Provincial Government priorities (Ministry of Advanced Education, 2013).

The **VIU Regional Action Plan** aims to attract and train graduate students, technicians and others in peer-reviewed research with applied outcomes and sustainable resource management practices focused on regional environmental and economic issues through collaborative research and program activity. To achieve this, there is a need to build institutional research experience and credibility. The Action Plan recognizes that regional centres and field stations, such as Deep Bay, can play a larger role in education and research and that there is a growing body of faculty with interest in research who need mechanisms to assist their engagement and successes in scholarly activities in addition to teaching.

VIU continues to seek ways to bring Aboriginal ways of knowing and Indigenous knowledge into cross-cultural education. VIU expects to maintain its high number of Aboriginal student enrolments and that VIU may be well positioned to respond to Aboriginal people needs for educational opportunities in the area of health, research, economic development and education. The Regional Action Plan aims to address these needs by providing region-wide Aboriginal Community leadership initiatives and an Aboriginal Education Strategy that includes Aboriginal access and transition to higher education.

Complementary or Competing Activities

Graduate Education

VIU has or is developing a number of new initiatives that could support or be supported by development of the School (Table 1 and Table 2). There are Master’s programs, research centres and networks and Aboriginal education initiatives involved in community engagement, health and sustainable development practice and research across the VIU campus and elsewhere. These programs and initiatives, however, are isolated units with little cross-departmental interaction to foster faculty and student collaborative scholarship and learning.

Table 1: Current Master’s degrees offered at Vancouver Island University

Faculty	Program	Campus and/or on-line
Faculty of Education	Master of Educational Leadership	Campus
	Master of Education in Special Education	Campus
Faculty of Management	Master of Business Administration and Master of Science in International Business	Campus
Faculty of Management Department of Recreation and Tourism Management	Master of Arts in Sustainable Leisure Management	Campus

Table 2: Proposed Master’s degrees offered at Vancouver Island University

Faculty	Department	Program	Campus and/or on-line
Faculty of Social Science	Department of Geography	Master of Geographic Information Systems	On-line
		Master of Community Planning	Campus

The existing Master’s degrees offered through the Faculty of Education and Faculty of Management plus the two Master’s degrees currently being developed through the Faculty of Social Science, Department of Geography have the potential for providing a number of courses highly relevant to the School. Courses on leadership, management, community engagement, and sustainability along with some more specific subject-based courses exist or are planned. Graduate programs in the Faculty of Education, for example, have courses in: 1) leadership in indigenous education; 2) collaborative learning culture; 3) systemic thinking; 4) addressing issues of diversity and social justice; and 5) leading teams in reflective inquiry and action research.

Some of these programs support experiential learning, such as the combined Master of Business Administration (MBA) and Master of Science in International Business (MScIB) where students complete an internship integrated with an applied business project. There are examples where existing VIU resources, such as Deep Bay, have been used to support these experiences.

The existing programs have established links with internal and external partners. For example, the Department of Recreation and Tourism Management is closely linked with the World Leisure Centre of Excellence in Innovation and Sustainability (WLCEIS) as well as the Institute for Coastal Research (ICR), which are research and network initiatives located on campus at VIU. These linkages facilitate learning and scholarship activity for graduate students in the Master of Arts in Sustainable Leisure Management program. Research includes using knowledge mobilization and collaborative approaches between communities, researchers and stakeholders. This program has an emphasis on preparing graduate students to examine and create solutions to problems at the intersection of recreation and sustainability

and thus offers educational experiences to support an integrated set of research capabilities, innovation, and knowledge mobilization skills.

The ‘ethos’ of providing a broad interdisciplinary knowledge of concepts, models and issues; applying strategies to influence change and innovation at the community, regional, national and international levels; and developing the capacity to actively engage in a variety of knowledge creation and mobilization approaches and strategies is present to varying degrees across these programs. The School should add value to these pre-existing or planned programs by: (1) providing a larger number and diversity of students to take available courses; (2) creating new course work that crosses degrees and provides students with a wider variety of learning options; (3) identifying research or experiential learning opportunities through School activities; (4) providing a unifying effect across these across programs and creating a shared space for co-learning; and/or (5) other means to make resource use more efficient or educational options more available. The School could be a mechanism to allow greater ‘portability’ of learning across programs by creating new opportunities or linking existing opportunities and thus helping to tailor educational needs better to the individual learner.

Institutes, Centres and KTE Networks

There are several centres, institutes and networks that are located either on or off-campus that could provide VIU faculty and students with experience and support to provide experiential learning that help students become ‘practitioners’ linked to future applied research, service and education partners. Research Centres and Initiatives include the following: 1) The Institute for Coastal Research; 2) The Centre for Shellfish Research; 3) Deep Bay Marine Field Station; 4) The International Centre for Sturgeon Studies; 5) Applied Environmental Research Laboratories; 6) The Centre for Healthy Aging; 7) The Centre for Healthy Communities Research; and 8) The Humanities Interdisciplinary Research Group. Research networks include the Community Based Research Institute, the Sustainable Ocean Food Systems Network and the World Leisure Centre of Excellence in Innovation and Sustainability. New initiatives such as increasing VIU roles in the UNESCO Mount Arrowsmith Biosphere Reserve and community extension programs through Fisheries and Aquaculture provide an important foundation for future community partnering and identification of community needs that could influence the School’s academic focus and service model. These and other VIU initiatives have shared goals to link researchers with partners to address important social, economic, environmental and cultural challenges; however, there is not a framework or strategic plan to implement these shared goals across centres or initiatives.

VIU has the capacity to deliver online distance learning which includes: 1) short term non-credit and credit courses; and longer term courses and certificates. Many of these courses have been created for professional development and training for those learners that are unable to attend day classes or who prefer to study at home. On-line course delivery also serves VIU’s commitment to providing learning opportunities to remote coastal and rural communities within and outside the boundaries of its service area. Various extension programs help to provide administrative and organizational models and physical capacity to deliver summer schools, professional education or other short term educational offerings.

Implementation Assessment

Anticipated Resources

Appendix 1 provides detailed notes on a review of two programs that share some key similarities with the proposed School, namely: Royal Roads University (School of Environment and Sustainability and Faculty of Social and Applied Sciences) and the University of Ottawa Graduate School of Public and International Affairs. These programs were selected due to some overlapping structural and organizational aspects similar to what is being proposed at the VIU School.

There are common themes between these two examples:

- The School or Program reported to a Faculty Dean but had its own administrative structure including an academic head/director, a manager and an administrative staff
- Both supplemented a small base of core faculty with external contract or fellowship experts
- Neither required a physical structure, using instead pre-existing infrastructure
- Both attempted to balance theory and practice and used an advisory board composed of stakeholders who could contribute to or benefit from the program
- The focus on applied learning experiences suggested the need to have people who could link to external partners and/or facilitate applied learning experiences
- Administrative staff served as coordinators for the programs
- Both had ties to international programs that were either delivered abroad or targeted international students to come to Canada
- Neither had an explicit First Nations focus

The Program Director appeared to be a conduit to link the School/Program with other Faculties or programs on campus. This seemed to be a way to ensure cross-departmental sharing or synergies.

The two programs differed on their use of on-line learning, Royals Roads is able to reduce its core faculty numbers by emphasizing on-line learning with focused periods on campus; in contrast, the program in Ottawa has students in a more traditional on-site learning experience.

Human resource needs varied. The Graduate School of Public and International Affairs offers 2 Master's programs (full time, on campus) and is reported to have 35 faculty, 22 contracted Fellows, a director, an associate director and 2 coordinators (they produced 51 Masters students in 2011). The School of Environment and Sustainability lists 13 core faculty, 80 external contracted experts, a director, 4 program heads, and a coordinator to deliver 3 Master's, 2 certificates and 2 diploma programs.(approx. 600 students graduated in 2012-13). Both programs also have administrative assistance.

These two examples suggest that, while the judicious use of external experts as Fellows or subject experts for teaching and supervision can reduce the need for new faculty, there will be a need to hire faculty to both direct and deliver parts of the School's teaching, service and research component with administrative assistance to coordinate contacts with partners and external learning opportunities.

One way to estimate a budget for the service component that generates teachable material through working with community on applied problems is to look at the model of the Centre for Coastal Health (CCH) that is located on the campus of VIU. The CCH provides applied research, facilitation and problem solving assistance to agencies and organizations across the health and environment spectrum. As of June 2014, CCH had a staff of 6, 2 of which are faculty at another university. The CCH current workload could support research for 3-4 Master's students and 6-10 undergraduate learners per year. Its operating budget is approximately \$550,000 per year of which approximately \$300,000 is secured through fee for service or grant funding.

Summary of the Environmental Scan

The proposed School is consistent with the missions, vision and plans of VIU. It is potentially transformative by creating a leading program among peer institutions. The School would strengthen the VIU brand and would meet key educational and societal needs, especially with a concerted effort to incorporate Aboriginal perspectives and learning needs into the program. The School could attract a new type of student to VIU and lead to new curricular development. Access to education could be increased by offering multiple learning outcomes (i.e. certificates, diplomas, degree) that take different levels of commitment to attain and by creating novel means for students to complete their courses, service and/or research from home or work. The School would help VIU have a tangible impact beyond the campus while making more efficient use of on-campus resources and programs.

The subject area and focus on solution-oriented, cross and interdisciplinary problem solvers and leaders addresses demands for future workers in the private and public sectors. A focus on knowledge mobilization development, and experiential solution-oriented training would distinguish the School from other interdisciplinary health or environment institutes, departments or schools which tend to focus more on discovery and innovation in research.

There is growing faculty profile and expertise in areas relevant to the School. VIU has an emerging regional profile but it is not at a capacity to market itself as having highly skilled and experienced faculty who have demonstrated capacity to work towards solutions and be leaders at the human-animal-environment interface. But, current and emerging Master's programs could provide a solid foundation of course work from which to meet the School's proposed goals.

Delivery options

The proposed School has been conceived to have three main components:

- Component 1 is a problem-focused emphasis that supports capacity and expertise to attract and help external knowledge users and communities who seek assistance through applied research, knowledge mobilization or other services. This component provides VIU with opportunities for active and experiential learning and scholarly activity in a niche area of knowledge creation and mobilization at the health-environment interface. While we use the term ‘problem-focused,’ communities need not only have a problem but could instead seek VIU partners or assistance in implanting positive change or facilitating some processes. This component emphasizes the application and mobilization of knowledge for change and helps develop the ‘practitioner’ skills of trainees.
- Component 2 is the traditional graduate school model wherein research for discovery and depth of knowledge on specific subject areas with the addition of course work offerings for students are emphasised. In this case, research could be related to specific disciplines relevant to health-environment-society issues and/or focused on working with wicked problems and developing problem solving techniques and methods.
- Component 3 emphasizes the transmission of intellectual content through the development and delivery of courses, online and/or in person.

Ultimately, the School would have all three components, but the relative importance or level of activity for each component would need to be tailored to community, faculty and budgetary needs. The decision on which component(s) to initiate first and their order of implementation will have planning, resource and implementation implications. Based upon a analysis of options, the problem-focused component would be instrumental to the School and may deserve priority³.

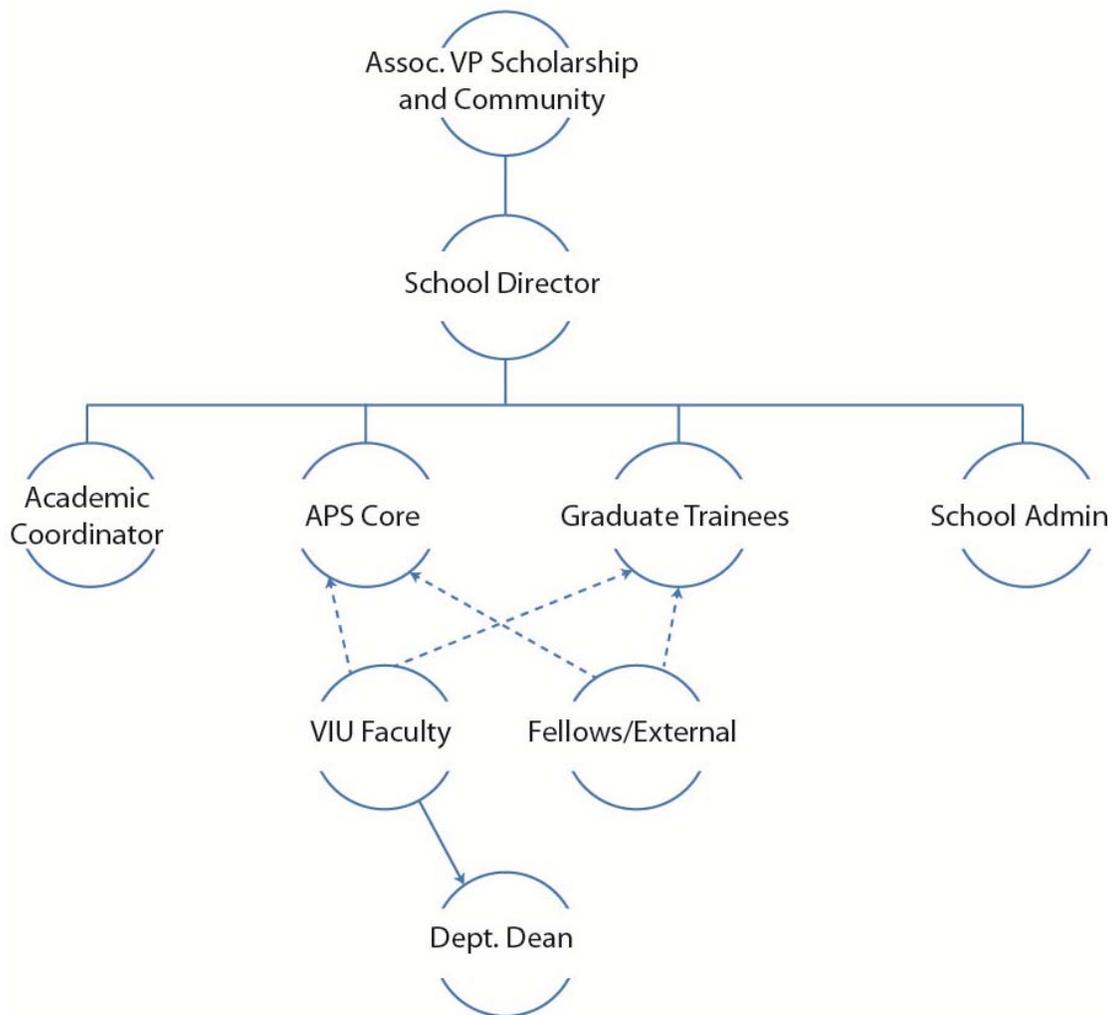
³ See Appendix ? for that analysis. There are many models elsewhere for components 2 and 3 that could guide the development of the new School. However, emphasizing or prioritizing these components alone when launching the School would make it challenging to distinguish the proposed VIU School from similar programs elsewhere. Course-based components could be rolled out relatively quickly, particularly if online learning is emphasized, thus bringing in a student body comparatively soon. Capital costs may be relatively low. However, VIU would be at a disadvantage having not yet established itself as a leader in this field and thus likely suffer from challenges in recruitment due to competition from similar programs, particularly those at Royal Roads University. The on-line course components could address the desire to make education more accessible by offering learning modes that can be accessed from home as well as internationally, but it would unlikely be able to meet the educational goals of this School alone as it would create few opportunities for the students and faculty to be engaged in the application and transmission of knowledge in complex real-world situations. Students would graduate with a theoretical understanding but would have little or no opportunity for mentored experience in applying their knowledge or skills.

If the School focused largely or initially on the traditional research component – traditional funding sources, students and prospective faculty would be more familiar with the model and therefore more comfortable in supporting or attending the School. However, the current allocation of faculty effort at VIU leaves little time for research, suggesting that meeting the needs for this component either would require hiring a number of research faculty or making changes to the current system to allow more faculty engagement in discovery research. The problem-focused component would allow for faculty to apply their scholarly skills and knowledge for shorter, more focused periods of time (as defined by the problem and faculty interest in participating) than what is more typically expected for a research intensive program. While research for discovery will likely be part of the School, starting by first developing the problem-focused component could facilitate a transition from the current academic system to one that would allow more intensive research activity among interested faculty. As with the course-based component, a new research emphasis would require very careful marketing of the VIU School to distinguish itself from those programs offered at research-intensive universities.

The problem-focused component would allow the School to address its three main functions: (1) teaching highly qualified practitioners, problem solvers and leaders by modelling application of academic knowledge and skills to complex problems; (2) delivering academic services that help people deal with issues at the health-environment-society interface; and (3) using applied research to develop the tools and information needed to support decision making. The problem-focused component addresses many of the pedagogical goals of the proposed School (supporting adult learning through experiential means; developing skills by active application through problem solving; fostering attitudes and skills for collaboration and knowledge mobilization). Such an approach would also distinguish VIU from other similar programs by having a focus on developing teaching material through working with communities and other knowledge users on tangible problems. There would, however, be several challenges to address, including creating the administrative systems that would allow rapid and easy contracting with external partners (e.g. fee for service for working on problems), flexibility in use of faculty time, and support for faculty development in experiential teaching methods.

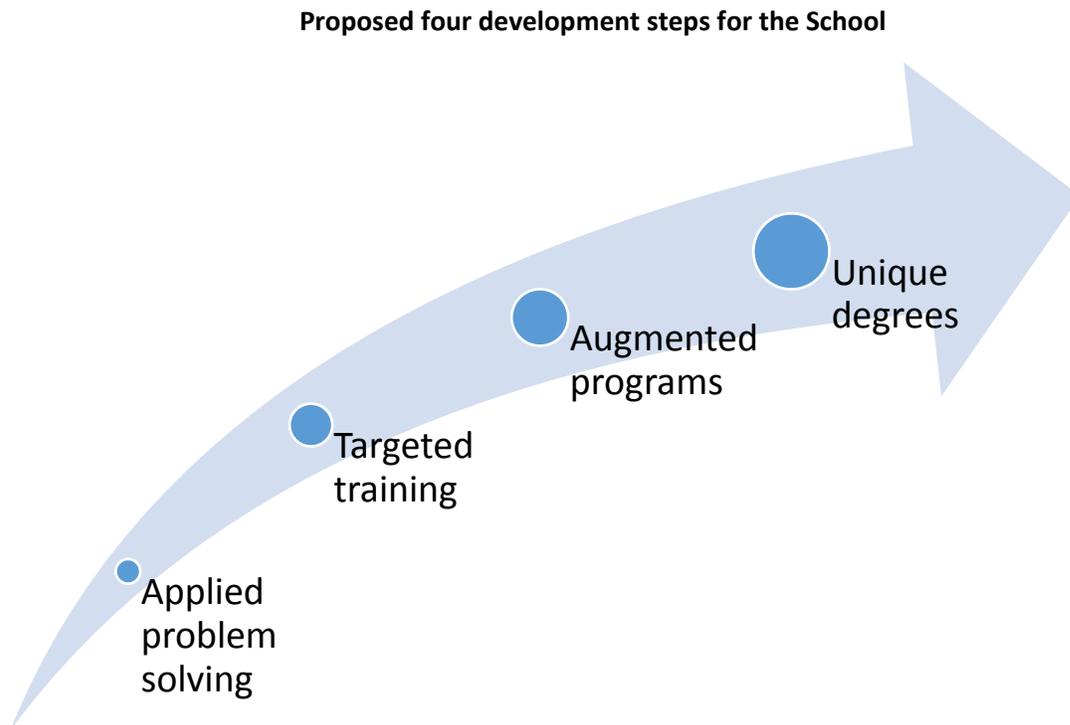
Below is an example of how the School may be organized. Solid lines show the reporting structure; dashed lines indicate involvement but not reporting responsibility.

An example of how the School may be organized.



Development Steps

Four development steps have been identified for the School (see diagram below).



Applied Problem Solving

An **Applied Problem Solving (APS) Group** would be the problem-focused component of the School. This group would be somewhat akin to a teaching hospital at a medical school. It would serve to integrate existing capacities at VIU and partners to be responsive to community or stakeholder requests for assistance at the health-environment-society interface. The Group would require a small core team able to ‘answer the phone’ when requests for assistance or collaboration come in, to market the presence and use of the Group, and to be “first responders”. The core team would be the hub of a community of practice that draws on existing VIU faculty and infrastructure along with strategic partnerships on an as needed basis depending on the skills sets required. A process would be required to attract and retain leadership for this group – a person(s) who could provide the vision for an academic service unit and experience in mobilizing faculty and institutional capacities for knowledge mobilization.

The APS Group would provide several benefits to the School. First, it would provide a mechanism for faculty to connect with communities and decision makers and to maintain an “on-the-ground” awareness of the issues and problems facing them at the health-environment-society interface. This not only informs teaching but also helps faculty anticipate future trends and issues that could inform applied

research and teaching. Second, it would provide students with opportunities for mentored experiences in applying their skills and knowledge, fostering their skills as ‘knowledge mobilization practitioners.’ Third, by being a place to which communities and decision makers come for help, the APS Group would increase VIU profile, helping to create a distinctive niche. Finally, the APS Group and its community of practice would be a tangible and fundable entity that would not necessarily require investment in infrastructure, creating some unique opportunities for fund raising.

Not only would this aspect of the School provide VIU with material for experiential teaching, but it would also create profile, reputation and credibility as a teaching institute for health-society-environment interactions. This would help define a unique niche and increase the allure of VIU for graduate students. The outputs of the APS Group could also show the contribution of VIU to socially important issues and generate preliminary data for subsequent applied research proposals.

A process would be required to determine the organization, structure and governance of the APS Group and to identify the administrative structures and support needed for its success. Models to consider include:

1. Locating the core team within the office of Scholarship and Community Engagement to position it as a campus-wide resource and to allow for centralized administrative support to the Group.
2. Associating the Group in some way with an existing or new VIU Research Centre that has a mandate consistent with the goals and vision of the School. A Centre for Biosphere Research would be one example.
3. Establishing strategic partnerships with existing organizations outside of VIU that have the expertise and reputation working with problems at the health-environment-society interface to provide a ‘quick launch’ of an APS Group within the School. The Centre for Coastal Health would be one example of such an organization.

This aspect of the School provides some unique funding opportunities and challenges. The APS Group itself could be an attractive target for endowed funding. Along with a fellowship for an experienced leader, the Group would benefit greatly from an annual contingency fund that provided ‘seed’ money to help the core team and affiliated faculty foster relationships and to quickly respond to requests for assistance until additional funds were secured for more in-depth investigation or action – be this fee for service, partnered support, in-kind, or contracts and grants.

Targeted Training

The School would provide **targeted training opportunities** that provide specific groups with a well-defined condensed educational experience. These could include summer schools, professional continuing education, diplomas or certificate programs. These time limited experiences could be developed on a cost-recovery basis and can serve as a means to begin to; (i) demonstrate the value of the School to VIU (internal marketing); (ii) engage VIU faculty in the School; (iii) recruit and develop a process for using external experts to help deliver program components ; (iv) create a presence for VIU in this training niche and (v) create a cohort of trainees who may either see the value of the School and seek further training and/or show the value of the School’s training when they return to their workplace and thus further market the School. The core faculty for the School (director, academic lead, APS Group)

would be responsible for development and delivery of these courses but would ensure that VIU faculty and external experts are integrated into these efforts to greater or lesser degree depending on the topic, audience and expertise.

These training opportunities could be focused on supplementing existing VIU educational opportunities by providing training experiences related to specific skill sets or content knowledge (e.g. a short course on First Nations perspectives on health and the environment) or they could be focused on approaches to specific problems (e.g. a workshop on identifying areas of vulnerability to climate change in small island communities). These opportunities may be packaged individually (when participants get ‘certificates of completion’) or to provide people with diplomas after completing a series of these learning activities.

Scholarships to ensure access to these opportunities or fellowships for external experts to contribute targeted training opportunities are marketable funding opportunities that could support this aspect of the School.

Areas of Focus

The potential applied focus for the School could be the proposed Centre for Island Studies, Mount Arrowsmith Biosphere Reserve, Deep Bay, Cowichan Valley and Nanaimo regions as those are framed by social, environment and health interrelationships.

Augmented Programs

The School should play a key role in **augmenting existing programs** by expanding targeted learning opportunities arising from the Applied Problem Solving Group. The unique experience of the core team recruited to the APS Group could supplement academic gaps at VIU and be used in the development and delivery of special topics courses available to students in various VIU graduate programs. Some of these courses could be expansions of material delivered in targeted training opportunities. These full courses would expand the diversity of learning opportunities for students across a number of different graduate programs and may lead to research opportunities. The APS Group could provide material for senior undergraduate student projects; externships or experiential learning opportunities for graduate students in other programs; campus wide seminars or shared seminar series across graduate programs and/or teaching cases that can be incorporated into existing courses. In this stage of development, students would take advantage of these various learning opportunities provided by the School while still receiving a graduate degree from their home department.

Unique Degrees

Finally, the School could develop its own **unique degrees**. Students would receive a degree from the School rather than another department. The School would act as a mechanism to link and integrate existing course offerings, fill in critical gaps in learning experiences that cannot be found elsewhere (on or off campus) and ensure a focus on experiential learning. Students would receive a ‘stand-alone’ degree after completing a set of learning experiences approved by the VIU Senate, the Ministry and the School.

There are four ways that the preceding development steps could be implemented:

	Stand Alone	Cross-institutional
Stepped approach	Option A	Option B
Complete de novo	Option C	Option D

“Stand alone” options A and C require VIU to develop and support all of the learning experiences for the students (with the exception of the regular use of external experts). VIU has or is developing a number of graduate degrees with aims that fit well with the goals of the School. They could provide courses that would cover some of the foundational educational expectations of the School, reducing the number of new courses that would need to be developed for the School. There is growing internal capacity to provide courses relevant to the School.

Options B and D depend on cross-institutional cooperation. This may be as simple as allowing students to access a portion of their requirements through other courses offered using a pay-per-service approach. For example, students may be required to provide some hours of service in the Applied Problem Solving Group; complete a research project and complete 4 courses to get a VIU degree. The students might be allowed to take two of those courses from recognized programs elsewhere. Accepting, and incorporating these offerings into the VIU programs could reduce the need to replicate excellent learning opportunities provided elsewhere, and could help focus VIU resources on developing other capacities to support the School. Mechanisms such as the Western Dean’s Agreement are already in place to facilitate student access to courses outside of their home institution. Alternatively, VIU could enter into partnerships with other institutions on the Island (Royal Roads, North Island College, University of Victoria, Camosun College) to create ‘permeable’ programs that allow mobility of students within and between programs offered by the various institutions. For example, the VIU School could look to courses or seminars offered at other institutions as a means to provide specific discipline content to a student’s program, whereas other institutions may rely on the School’s Applied Problem Solving Group to provide research opportunities and externships for their students. This option would allow VIU to be more focused on fund raising and development of capacities unique to VIU.

“Stepped” options A and B would see VIU gradually implement the development plan through the four steps or stages, starting by creating the Applied Problem Solving Group and, soon after, offering targeted training opportunities. By staging development, VIU could concurrently develop the institutional mechanisms needed to support experiential learning, faculty engagement and response to problems at the same time as the institution develops profile and reputation in the fields relevant to the School. This approach reduces the initial outlay of funds and allows VIU to assess the community demand for assistance in problem solving and these types of training opportunities. It would allow VIU to get feedback from partners and those availing themselves of learning and collaborating opportunities. Finally, it would help VIU better assess the needs of communities and decision makers and thus fine tune its educational offerings. Failure at this stage would incur cost associated with retaining the necessary core staff to develop the School and provide initial services, but would avoid larger

investment in educational infrastructure. Success at this stage would allow time for internal negotiations and to demonstrate the added value of the School to other programs (either on campus or with external partner institutions) and thus facilitate the implementation of subsequent development phases. This approach would allow VIU to develop the more unique aspects of the School (i.e. the problem solving group and summer schools) while negotiating possible partnerships with other academic institutions in course delivery and resource sharing. The staged approach would not necessarily delay exploring curriculum design or delivery options for augmented VIU degrees or degrees unique to the School. As the first stages are implemented, concurrent curriculum development, fund raising, preparation of plans for new degrees and institutional policy development could be ongoing. It could be anticipated that there would be a space of 3 to 5 years between starting the first two stages, and the third, and another 3 to 5 years between starting the 3rd and fourth stages. This would result in a 6 to 10 year time (minimum) between beginning work on the School and realizing its full vision.

Options C and D would see the School implementing all four components concurrently in their full and complete form. This has the advantage of being able to recruit graduate students to a new program immediately and allows the vision of the School to be realized in a shorter time than if a stepped approach was adopted. It risks VIU developing a new area of expertise without yet having profile or adequately marketed or developed the reputation and capacities needed to fully realize the vision of the School. The time requires to launch a cross-institutional approach would depend on the speed in which agreements and institutional partners could be developed.

A possible organizational structure might look like the following diagram:

SCHOOL STRUCTURE					
People	Leadership	Director		Academic Coordinator	
	Faculty and Staff	APS Core Group	Administration	VIU Affiliated Faculty	Fellows and External Experts
Products	Courses		Applied Problem Solving		Research
	Diplomas Certificates	Unique Degrees	Response	Facilitation	

Steps Forward

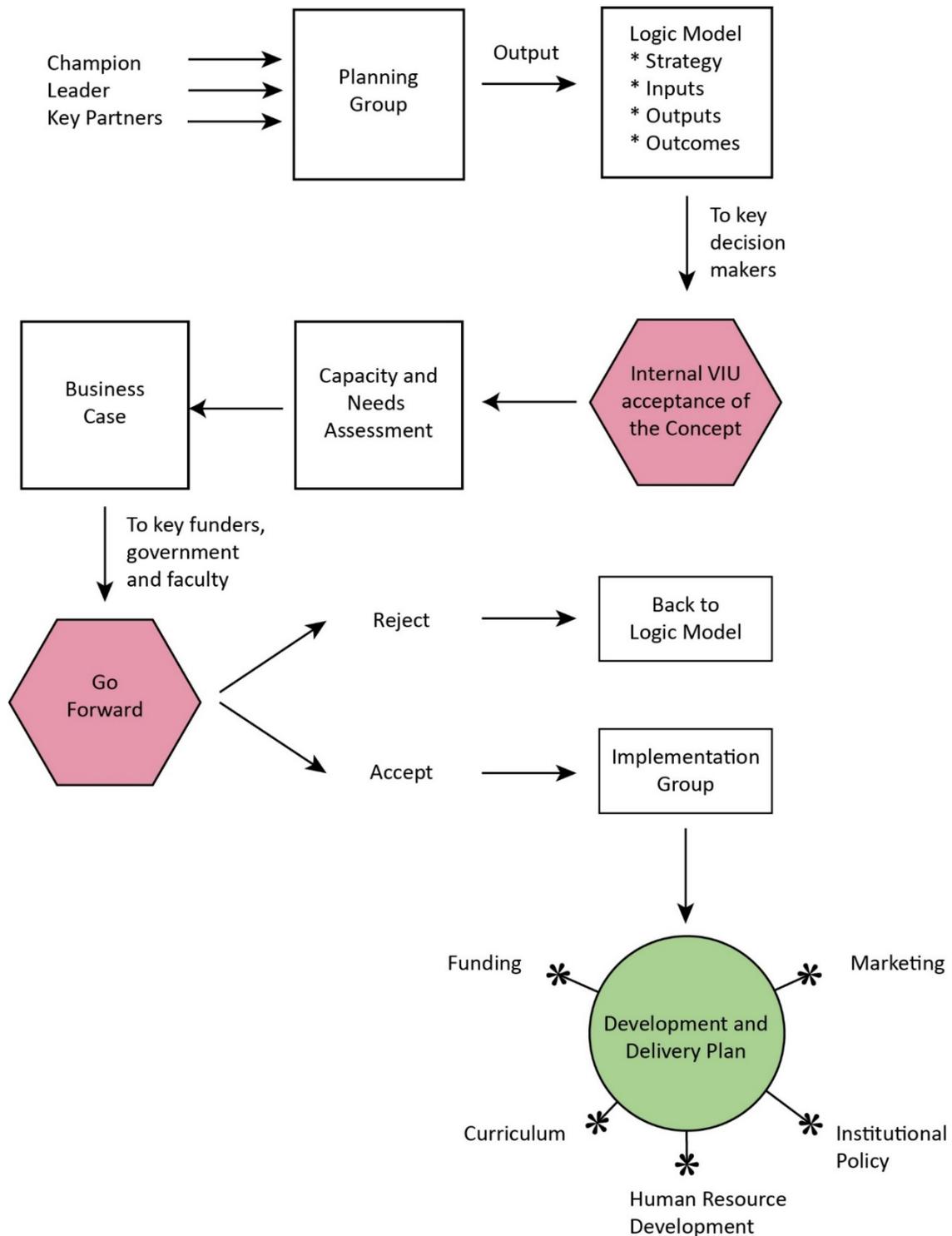
The general planning process depicted in the figure below, is a generic outline of the steps forward. A critical first step will be to secure internal agreement of the desirability and necessity of the School at VIU. The School should be created only if it is thought that the academic mission of the University cannot be achieved with existing structures. While this report outlines the values and possible challenges of the School, consultation with the VIU community has been limited.

While there are a few concept documents available for the School, details are lacking. After identifying an internal leader and champion for the School, VIU should constitute a small planning group composed of key internal and external partners. Their first task will be to draft a logic model for the School that can be used for consistent and concise communications. This model should include:

1. A draft mission statement
2. A short summary of the teaching, service and research agenda of the School, clarifying the need for and "value added" aspects of the School and how it will support both the institutional vision and the mission of existing programs and degree offerings on campus
3. A description of the proposed organizational structure
4. A list of existing capacity (infrastructure, faculty and administration) required by currently available and needing to be obtained to support the Schools mission
5. Opinions on funding options for the School
6. The relationship between the proposed School and current academic units, including research centers
7. The anticipate outputs and inputs
8. The outcomes desired for education and community

The VIU community should be canvassed to gauge the level of support, identify critical obstacles or conflicts and identify key advocates to move forward. The objectives of these preliminary activities would be to secure commitments of support from relevant school deans and department chairs, engage appropriate faculty, build sustained faculty involvement, identify faculty leaders, and identify potential sources of funding.

A generic outline depicting the general planning process for the School



Assuming support is received, a planning group should then be created that would meet regularly to develop the business case for the School. This group should include a broad range of faculty to create disciplinary diversity and enhance interdisciplinary opportunities. The planning group would include and be chaired by the Provost and include the Associate Vice Presidents. This business plan should include:

1. Persuasive evidence that new activities or an increased magnitude of activity could not be undertaken in the absence of the proposed School.
2. The combination of intellectual capital, research environment, and external factors that create favourable conditions for the School's success.
3. Existing interdisciplinary collaborations already underway that provide a foundation on which to build the School's activities.
4. Identify an interim director (or co-directors) and a steering committee.
5. Provide specific details regarding the commitment and resources being requested and the commitments and resources secured to date from University or external sources.
6. Describe the proposed timeframe for securing the requested commitments and moving forward with establishment of the center.
7. Develop a budget, taking into consideration the full array of programs and activities the School plans to undertake
8. Provide information on currently available research, education, and research training opportunities.

The Business case should then be shared with key partners who will approve the program. Rejection would require a return to a revised logic model and business plan while acceptance would require the creation of an implementation team that would develop a plan focused on:

1. Funding sources
 - a. Core funding
 - i. Staff - Academic director, Applied Problem Solving Unit director, new teaching staff and administrative staff; flexible funds to engage external experts
 - ii. Infrastructure – some dedicated office space, cost-sharing for shared space on or off campus
 - iii. Applied Problem Solving Unit operating budget – partner development (travel, marketing); start-up funds for rapid response to new problems
 - b. Research and service funding
 - c. Education delivery infrastructure and course costs
2. Institutional policy
 - a. Academic credit for service and experiential teaching
 - b. Using external experts in teaching
 - c. Rapid, transparent and easy mechanisms to secure and manage external funds to respond to applied research and service needs

3. Curriculum development
 - a. Requirements for diplomas, certificates, degrees
 - b. Strategies for using existing sources in VIU or other institutions
 - c. Program approval
4. Human Resource development
 - a. Teaching
 - b. Service and applied research
5. Program marketing

Conclusion

The Proposed School of Environment, Health and Society offers a significant opportunity for VIU to continue to build on past investments and enhance the public profile of the institution. The School could begin with a focused approach on problem solving that leads through to targeted training, augmented programming and unique degrees. It provides an important potential connecting organisation across the university while linking to coastal communities, including First Nations and their significant potential contribution to learning.

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Appendix 1: Selected notes on similar programs

School of Environment and Sustainability

Master's Degrees

Environmental Education and Communication

Science in Environmental Management

Science in Environmental Practice

Certificate and/or Diplomas

Environmental Education and Communication

Sustainable Community Environments

- *Programs offer interdisciplinary undergraduate, graduate, graduate certificates and executive education*
- *Programs offer Master's degrees that are completed in one or two years, following a teaching model that combines short, intensive on-campus residencies with online instruction.*
- *All programs focus on the skills, knowledge, theory, and research that create workable strategies for complex*

Royal Roads University

Faculty of Social and Applied Sciences

The Faculty of Social and Applied Sciences provide programs that focus on the skills, knowledge, theory, and research dedicated to studies involving leadership, communication and culture, education, humanitarian studies, the environment and sustainability. The Faculty programs offer interdisciplinary undergraduate, graduate, and graduate certificates. The interdisciplinary approach to applied research and scholarly activity related to Sustainable Development identified the Faculty of Social and Applied Sciences, School of Environment and Sustainability as a comparable framework to consider, when thinking about what a framework for the VIU School for Environment, Health and Society would look like.

School of Environment and Sustainability

The School of Environment and Sustainability has a mandate which is committed to applied, problem-solving research that supports RRU's innovative partnerships with communities, business, industry, and the public sector. Focusing on current needs and trends related to sustainable societies, communities, and organizations, the School of Environment and Sustainability undertakes research to advance capacity building, collaboration and organizational effectiveness, dialogue, environmental protection, pollution mitigation, and resource stewardship. These programs focus on developing skill sets and knowledge outcomes for graduate level learners to work collaboratively in multi-disciplinary environments.

The School of Environment and Sustainability's program knowledge and skill set outcomes though not identical, fall within the thematic pillars of the proposed VIU School of Environment, Health and Society. Though the School of Environment and Sustainability focuses on "sustainable development", its approach to applied research, service and education works toward improving health outcomes for people, society and the environment.

Sustainable development skill set outcomes related to decision making, collaborating, participating, knowledge mobilization are similar to those

proposed through the VIU School of Environment, Health and Society. The delivery of these program outcomes however follow a teaching model that combines short, intensive on-campus residencies with online instruction, targeting working professionals. The proposed School of Environment, Health and Society though not excluding on-line learning proposes a focus towards on-campus post-graduate learning.

Products

Master's degrees

- Environmental Education and Communication
- Master of Arts or Science in Environmental Management
- Master of Arts or Science in Environmental Practice

Certificates

- Environmental Education and Communication
- Sustainable Community Environments

Diplomas

- Environmental Education and Communication
- Sustainable Community Environments

Post-graduate Master's Degree, Certificates and Diplomas offered at the School of Environment and Sustainability are described below.

Master of Arts in Environmental Education and Communication

This program is designed for those who wish to widen their perspective on the complexities of environmental issues, deepen their understanding of those areas essential to a skilled educator and/or communicator, and develop attributes essential to effective leadership.

The program offers collaborative learning with participants from diverse areas of environmental education and communication, to engage in core classes, co-operative projects, team planning, and group discussions to reach a better understanding of the language, expertise, and concerns of the widest possible range of environmental professionals.

This is a two year program made up of 3 three-week on-campus residencies combined with online learning. A thesis is a required component to complete the degree.

Master of Arts or Master of Science in Environmental Management

The Master of Environment and Management (MEM) program is a graduate degree of interdisciplinary study in either the Master of Arts (MA) or Master of Science (MSc) designed to enhance strategic decision making in the environmental field. The program emphasizes teamwork and focuses on

technical, policy, and system and sustainability issues to prepare students to become environmental professionals who are effective leaders and managers.

This is a two year program made up of 3 three-week on-campus residencies combined with online learning. A thesis is a required component to complete the degree.

A one year program has been developed for on-campus delivery in China. The curriculum has been adjusted to consider Sustainable Development within a Chinese context. The program is a partnership between Tianjin University of Technology and RRU and is taught by RRU faculty.

Master of Arts or Master of Science in Environmental Practice

The master's degree in Environmental Practice is available as a Master of Science (MSc) in Environmental Practice and as a Master of Arts (MA) in Environmental Practice. The Master's Degree in Environmental Practice is designed for those seeking a program that is professionally-focused and which has a content related to professional certification.

This program is one of a suite of programs offered through the Canadian Centre for Environmental Education (CCEE) which is a result of a partnership between Royal Roads University and the Environmental Careers Organization of Canada (ECO Canada)⁴. The curriculum for both the MSc and the MA degrees in Environmental Practice relates the following three employment sectors to the framework provided by the National Occupational Standards used for professional certification of Canadian environmental practitioners by the Canadian Environmental Certification Approvals Board (CECAB)⁵: 1) Conservation and Management of Natural Resources; 2) Environmental Protection; and 3) Environmental Sustainability. The benefits or certification formally recognizes and verifies environmental skills and knowledge at a national level.

The program is designed to be completed within three years which is delivered entirely on-line. A research paper on a topic of specific interest to the student or a Practicum which enables the student to apply knowledge gained in the program to a specific, approved topic of relevance to their workplace is required to complete the degree.

Graduate Certificate and/or Diploma in Environmental Education and Communication

The Graduate Diploma in Environmental Education and Communication is a leadership program that focuses on developing the competency and skill of educators and communicators who have an interest in, or responsibility for presenting environmental information to audiences. Typically, students are engaged in occupations ranging from teachers, educators and journalists to communication professionals, public relations specialists, government policy analysts and non-governmental organization program developers.

⁴ <http://www.eco.ca/>

⁵ <http://cecab.org/public/default.aspx>

This interdisciplinary program builds theoretical and practical knowledge and skills as well as strengthens student's understanding of environmental studies and sustainability, learning theory, environmental education, educational program development, philosophical and cultural analysis, journalism and communications.

The program builds on expertise in related degree programs at RRU in Environmental Management, Environmental Science, Conflict Resolution, Leadership and Training and Distributed Learning.

The Graduate Diploma in Environmental Education and Communication program is ladderred, which allows individuals to complete a Graduate Certificate, Graduate Diploma, or full Master's degree.

This is Graduate certificate program is a one year program made up of a 1 three-week on-campus residency combined with online learning. The Graduate Diploma program is a one year program made up of 2 three-week on-campus residencies combined with online learning.

Graduate Certificate in Sustainable Community Development

The Graduate Certificate in Sustainable Community Development an interdisciplinary program to enhance economic, social, environmental, and cultural knowledge and skills needed to develop sustainable communities.

This is a 6 month program made up a five-day on-site residency, followed by two online courses, and concluding with a final three-day residency. During the final residency students will work in collaboration with an organization to engage in experiential and collaborative learning and apply that learning to a current, local, sustainable community challenge.

Research

Research clusters that have been identified to assist in providing areas of focus for RRU research are currently focused around: 1) learning and innovation; and 2) sustainable communities and societies. A recent RRU Policy on the Establishment of Organized Research Centers recognizes that such institutions would foster collaborative research with industry, communities, government, and society. This policy recognizes the need for RRU faculty to engage in research to develop credibility to teach these topics.

Governance and Capacity

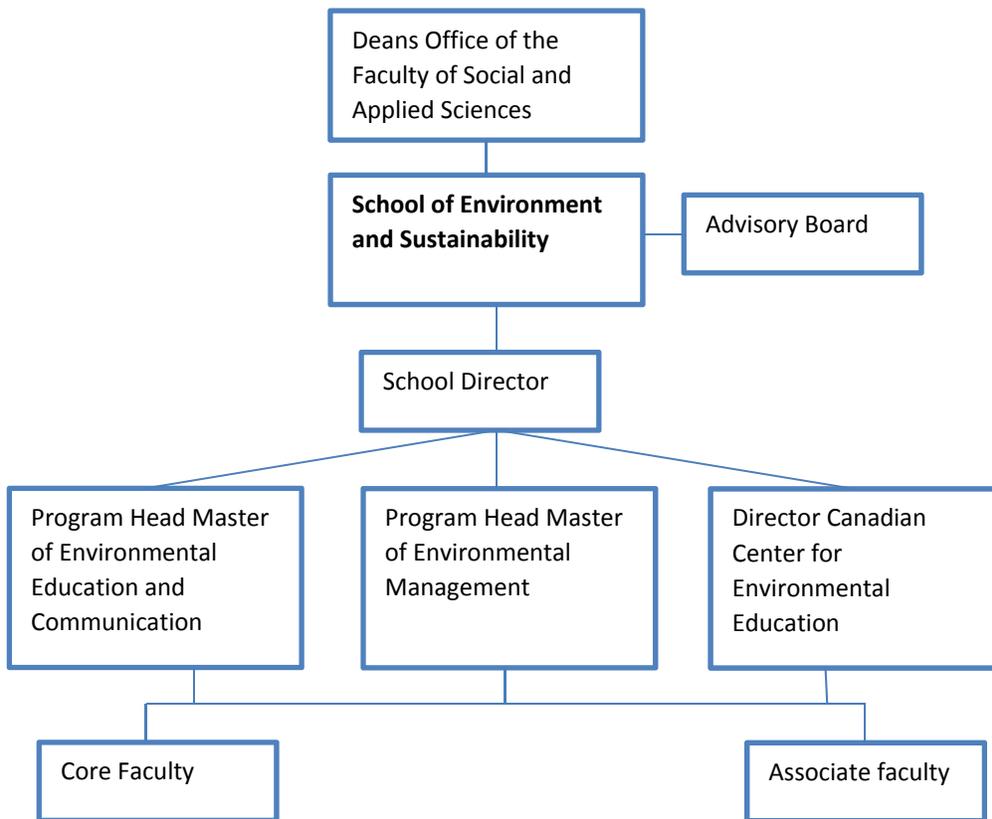
People Capacity

The School of Environment and Sustainability is under the direction of the Dean of the Faculty of Social and Applied Sciences. The virtual or off campus component of the undergraduate, graduate, graduate certificates and diplomas offered through the School enables it operate with only 10 core faculty who are located on campus throughout the year.

The 10 core faculty (professor, associate professors, assistant professors) include:

- 1 School Director
- 4 Program Heads
 - Master of Environmental Management
 - Master of Environmental Education and Communication
 - Undergraduate programs
 - Environmental Practice Program

The core faculty is involved in the delivery of curriculum online and/or during short term residencies for the undergraduate, graduate, graduate certificate and diploma programs. There are ~ 80 associate faculty who are hired as contractors to also deliver curriculum online and/or during short term residencies or act as thesis supervisors. An advisory council comprised of government, academics, industry provides external advise to the school that its programs and curriculum are current, relevant and practical to provide knowledge and skill sets needed by employers.



Faculty of Social and Applied Sciences

Programs include:

- 1) School of Leadership;
- 2) School of Communication and Culture;
- 3) School of Business Studies
- 4) School of Humanitarian Studies
- 5) School of Environment and Sustainability

Faculty of Management

- 1) School of Business
- 2) School of Tourism and Hospitality

- Programs offer interdisciplinary undergraduate, graduate, graduate certificates and executive education
- Programs offer Master's degrees that are completed in one or two years, following a teaching model that combines short, intensive on-campus residencies with online instruction.
- All programs focus on the skills, knowledge, theory, and research that create workable strategies for complex problems.
- All programs make extensive use of team-based learning

There is a total of 6 administrative staff which includes:

- 1 School Manager
- 4 Program Associates
 - Bachelor, Certificate and MA in Environmental Practice
 - MA in Environmental Education and Communication
 - BSc in Environmental Science and Environmental Management Programs
 - MA/MSc in Environment and Management Program
- 1 Coordinator
 - BSc - Environmental Science and Environmental Management Programs

Physical Capacity

The School of Environment and Sustainability is not a building. The virtual or off-campus component of the Schools programs enables it to operate using little physical capacity. The physical capacity it does require are classrooms and accommodation for the programs that require short term on-campus residencies as well as office space for the 16 faculty and administrative staff.

Royal Roads University

Faculty of Social and Applied Sciences

Master of Arts in Interdisciplinary Studies

The Master of Arts (MA) in Interdisciplinary Studies offer students the opportunity to design a program of study focused on a specific research topic or professional area of interest that would best be studied from the perspectives of more than one academic discipline. Typically, most graduate interdisciplinary degrees in Canada draw from traditional, single disciplines. The RRU MA in Interdisciplinary studies program offers learners to select courses from programs in the Faculty of Social and Applied Sciences and the Faculty of Management. This allows for an even greater diversity of scholarly perspectives. The program also offers learners to choose among course-based, thesis, or major project options. The graduate level degree is attainable completely on-line with an option to include a short term on-campus residency.

This type of modeling for post graduate Interdisciplinary Studies though

Graduate School of Public and International Affairs

Master of Arts Degree

Public and International affairs

- *The Program offers interdisciplinary undergraduate, graduate under the realm of Public and International Affairs*
- *The Master of Arts in Public and International Affairs is a two year, full time, on-campus program.*
- *The program focuses on the importance of balancing theory with practice.*
- *The program fosters skills sets relating to decision making, knowledge sharing, and mobilizing information to stakeholders.*

Faculty of Graduate and Postdoctoral Studies

Master of Arts and Science

Environmental Sustainability (MA/MS) (Collaborative)

- *Collaborative degree with the Master in Public and International Policy*
- *Thesis or Scientific report streams*
- *Includes Environmental Sustainability seminars and/or course*

conducted virtually through on-line courses is a framework similar to what is proposed for the School of Environment, Health and Society. **This type of framework could work well with existing capacity that is currently available at VIU which would offer learners to select courses from programs across departments and across disciplinary units.**

Governance and Capacity

People Capacity

The off of Interdisciplinary studies is under the direction of the Dean of the Faculty of Social and Applied Sciences. There are 3 core faculty (professor, Associate professor) including 1 Program Head.

University of Ottawa

Faculty of Social Sciences

The Faculty of Social Sciences comprises nine departments, schools and institutes, which offer undergraduate, masters and doctoral programs. 10,000 students, 260 full-time professors, and wide array of programs and research centers, the Faculty of Social Sciences plays a key role at the University of Ottawa. The Faculty of Social Sciences oversees three schools which include: 1) The Centre for Global and Community Engagement; 2) the School of International Development and Global Studies; and 3) the Graduate School of Public and International Affairs.

The interdisciplinary studies, theory and practice, scholarly activity associated with the Graduate School of Public and International Affairs (GSPIA) identified the school as a comparable framework to consider, when thinking about what a framework for the VIU School for Environment, Health and Society would like. Additionally, the school is comprised of senior fellows who contribute to enriching the intellectual life of the School.

Graduate School of Public and International Affairs (GSPIA)

The Graduate School of Public and International Affairs offers multidisciplinary curriculum, which combines the study of international affairs and domestic policy-making. The missions of the School are to:

- Use an interdisciplinary approach for teaching and research in the domains of international affairs, public policy, and international development as well as in conflict studies and human rights;

- Ensure a learning experience which takes into account the complex interactions between national and world phenomena in the pursuit of public and international affairs;
- Ensure a comprehensive and innovative high quality education which integrates both theory and practice;
- Ensure the development of close links with the local, national and international communities, in particular the public sectors, para-governmental and non-governmental organizations in the region;
- Ensure that students have access to practical learning through discussions and seminars with senior fellows, international courses and co-op placements;
- Offer seminars and training to meet the specific needs of public sectors, non-governmental organizations and other non-profit organizations;
- Increase the synergy between the various disciplines in Social Sciences in the study of public and international.

The aforementioned mission statements of the Graduate School of Public and International Affairs (GSPIA) are similar in scope to the proposed VIU School for Environment, Health and Society which includes: 1) applied research; 2) service; and 3) education. Where the Graduate School of Public and International Affairs utilizes a multi-disciplinary education and scholarly approach under the realm of international affairs and domestic policy-making, the proposed VIU School for Environment, Health and Society education approach would fall under the realm of people, society and the environment. Both schools recognize the important component of practice and skills sets relating to decision making, knowledge sharing, and mobilizing information to stakeholders.

The GSPIA offers an M.A. in Public and International Affairs. The delivery of this program is on-campus which is what is proposed VIU School for Environment, Health and Society.

The GSPIA is a participating unit in the collaborative program in Environmental Sustainability.

Products

Master of Arts in Public and International Affairs

The Graduate School of Public and International Affairs offer a multidisciplinary curriculum, which combines the study of international affairs and domestic policy-making. Benefiting from its prime location in the heart of Canada's National Capital, a stone's throw away from Parliament Hill, foreign embassies and government departments, the Graduate School of Public and International Affairs offers students an exceptional learning environment. The program offers collaborative learning and an opportunity to engage not only with the school's faculty but also with experienced senior fellows about challenges in public and international affairs. Senior fellows are experienced professionals drawn from a community of practice related to public and international affairs, many of whom recently retired from the Canadian Government. Many of the senior fellows served as senior advisors, Director Deputy Ministers and Director Generals with the Government of Canada. Senior fellows include Officers of the Order of Canada.

The Master of Arts in Public and International Affairs is a two year full time program. It is only offered on a full time basis which includes compulsory courses, elective specialized seminars, a capstone seminar and a final research paper. There is an optional coop program associated with this degree which requires two internships and an internship report in addition to the aforementioned required courses, seminars and research paper. An international student mobility Initiative associated with the co-op program gives students an opportunity to complete an internship in a developing county or one that is in the midst of economic transition.

Environmental Sustainability (MA/MSc) (Collaborative)

The master's level Collaborative Program in Environmental Sustainability allows students registered in one of the participating master's programs to specialize in environmental sustainability. The guiding objective of the Collaborative Program is to provide graduate students with knowledge and skills needed to identify and analyze the economic, legal, policy and scientific dimensions of environmental problems and to employ an evidence-based approach to develop rational policy options for addressing those problems. The degree awarded specifies the primary program and indicates "Specialization in Environmental Sustainability." The program operates within the framework of the general regulations of the Faculty of Graduate and Postdoctoral Studies (FGPS).

The specialized degree includes the core programming of the Master of Arts in Public and International Affairs and can be completed either through a thesis stream or research paper stream. Two Environmental Sustainability seminars are required for both streams.

Research

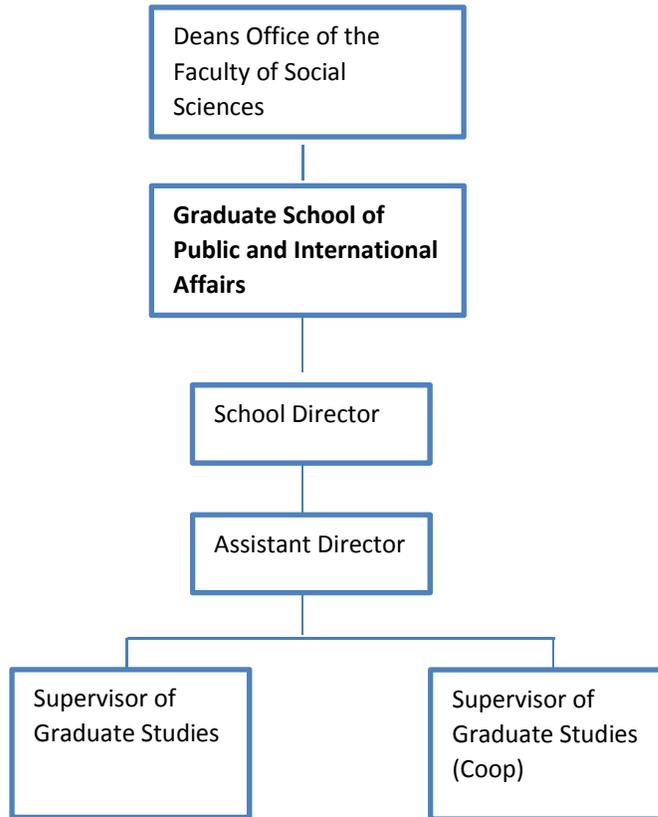
Using disciplinary and interdisciplinary perspectives, research at the GSPIA encompasses fundamental, theoretical, applied or action-oriented (action research). Outcomes from this research greatly influence individual communities and society in general. The GSPIA scholarly activity fosters social innovation, creates and shares knowledge, promotes public policy development and builds research partnerships with the public and private sectors, as well as community organizations. Though the research themes fall under the realm of Public Health and International Affairs, these themes are very similar to the proposed VIU School of Environment, Health and Society.

Governance and Capacity

People Capacity

The Graduate School of Public and International Affairs is under the Dean of Faculty of Social Sciences. The School is comprised of faculty and senior fellows who teach and/or offer seminars to both the undergraduate and graduate students. There are 35 faculty and 22 senior fellows. There are 4 management staff which include:

- 1 School Director
- 1 Assistant Director
- 1 Supervisor of Graduate Studies
- 1 Supervisor of Graduate Studies (Co-Op)



Physical Capacity

The Graduate School of Public and International Affairs is not a distinct building. Faculty offices are located in the Social Science building. Offices and support staff are also provided to Senior Fellows.

Appendix 2: Option Analysis

Strengths and weaknesses of program delivery components to consider for the School.

Strengths and Weaknesses of Program Delivery Components			
	Emphasis 1: Problems-focused	Emphasis 2: Traditional	Emphasis 3: Course-based
Pros	Supports knowledge mobilization and provides models for students	More conventional funding sources available	Easier to package and deliver
	Creates and maintains community connections	More familiar model for potential students and faculty	Easier to standardize
	Supported by theories on adult experiential learning; students learn in context	Supports discovery and depth of inquiry, thus fostering specific expertise and knowledge creation	Good for establishing foundational knowledge
	Provides tangible service to society		Content may be easier for distance learners to access
	Interdisciplinarity emerges by problem solving		
	Helps students create networks with knowledge users		
	Creates flexibility and diversity of learning opportunities		
	Cons	Need to attract problems and 'clients'	Easier to isolate faculty and activities by discipline due to a lack of shared problems/research projects
Need the capacity and expertise to respond to problems		Risks isolating faculty and students from 'real-world' contexts	Fewer opportunities for experiential learning that is rich in 'real world' context
Need the administrative and academic culture to support experiential learning and academic service to society		Students may be exposed to a smaller range of experiences to learn and apply knowledge	Risks being out of touch with the emerging needs and context of current knowledge users
An obvious model to replicate is unavailable for the health-environment-society perspective but there are other institutions with models for working with communities		Multi/interdisciplinary opportunities need to be planned	More focus on transmission of content than application of knowledge
Unfamiliar model to prospective students		Experiential learning is not a focus	There are several models like this, thus making it harder for VIU to establish a niche
Need to train and support experiential teachers	There are several models like this, thus making it harder for VIU to establish a niche		