



Program Review Quality Assurance Plan

Quality Assurance Plan for: B.Sc. in Health Science

Date submitted to SSCPR: December 6, 2019

Date Self-Study Report approved by SSCPR: March 20, 2019

Date of External Review: May 22, 2019

SUMMARY

Background: KPU's B.Sc. in Health Science Program is offered as a four-year degree with an honours option. The Program is offered by the Department of Biology and its main objectives are to provide foundational knowledge in the basic sciences and the skills to apply scientific knowledge to clinical, public, and population health. The Program's first review aimed to assess the currency of the program, quality of curriculum and instructional design, as well as capacity to meet stakeholder (e.g., program advisory committee, health sector employers) needs. The key questions directing the Health Science (HSCI) Program Review included: 1) How is the program growing in terms of registrations, student enrolments, and graduations?; 2) How do students (current and alumni) and faculty perceive the program in terms of its success in meeting its objectives and KPU core competencies?; 3) What are students' and faculty's views about program-related issues?; 4) What are program stakeholder opinions about the program meeting their needs?; 5) What strategies could foster growth of the program?; and 6) What would be the most viable option among different HSCI degree specializations? Based on evidence from an environmental scan, surveys of students, faculty, and stakeholders, student focus group, institutional data, and an external review, various strengths, challenges, potential threats, opportunities, and overall recommendations were highlighted.

Strengths: The External Reviewers and Self-Study Reports highlighted many positive components of the current program. Graduates of the HSCI program are finding job placements and graduate school placements in the highly competitive health sector. Strengths of the HSCI program include its well-qualified faculty and laboratory personnel, diverse delivery modes (i.e., traditional lecture, seminar, blended, experiential, limited online delivery), and small class sizes. Another major strength is the Program's honours option that provides students with opportunities to engage in applied health research and be well equipped for graduate programs. Currently, students have full access to basic science curriculum and research.

Challenges: The *first major challenge* concerns retention of students in the upper levels of the degree. As indicated in the student focus group that was part of the Self-Study, this may be due to cancelling HSCI electives, or courses remaining under development. Upper level HSCI course enrollments have been unexpectedly low considering the large number of "HSCI Declared" students. This in part appears to be due to students opting for HSCI in their first two years as a vehicle to gain entry into the KPU Health Foundation program. It is very difficult to ascertain the intent of such students, thus making planning and overall student progression challenging. Enrolments in 1000 and 2000 level courses are strong, often with wait lists, but this has not translated into upper level enrolments. A *second major challenge* is the need for enhanced profile and identity of the HSCI Program. As indicated by the external reviewers' comments, the faculty teaching HSCI courses and the curriculum were believed to be more weighted towards basic science rather than health. Further to this, the external reviewers suggested that "...it may be beneficial for the Health Science program to examine its identity in the context of the future direction and organizational structure of KPU." A *third major challenge* lies in the need for more health-specific and applied research opportunities, such as clinical, population-level, or community-based research, within the curriculum of the research-oriented courses.

Potential Threats: All of the previously identified challenges pose threats to the growth and sustainability of the HSCI program. The growth of the program is limited by the current fiscal context where HSCI electives cannot always be offered. When course cancellations occur, students are then confined to taking either biology-specific electives, courses from other disciplines (e.g., Psychology, Sociology), or taking substitute courses at other institutions.

Opportunities for Improvement: As identified in the Self-Study and External Reviewers report, there are multiple opportunities to improve the quality of the HSCI program, including:

1. increasing enrolments in the program and fostering student retention to program completion by developing and implementing an effective marketing and communication strategy, increasing participation in promotional events, and building on community outreach initiatives;
2. building infrastructure, support, and opportunities for applied research such as clinical, population-level or community-based research;
3. expanding experiential learning opportunities in the program;
4. revisiting and revising the HSCI degree outcomes/competencies to better align with current trends in stakeholder, employer, and academic expectations;
5. investigating development of Public Health/Health Education focused curriculum to enhance the HSCI program and address regional needs; and
6. examining Program identity in the context of the future direction and organizational structure of KPU, and instituting strategies aimed at improving the HSCI program profile.

Overall Recommendations: Based on evidence from the Self-Study Report and External Reviewers Report, the following overall recommendations are made to develop foundational Program components that will improve its currency, connections, and overall quality:

Short-Range (< 6 months):

1. Re-examine and update the essential competencies of program graduates, as well as program and learning outcomes.
2. Re-examine and update the curriculum to: i) integrate program and learning outcomes; ii) align with institutional priorities (e.g., K-12 curriculum changes, Indigenous content, Core Learning Competencies, Value Foundations, Vision 2023); iii) include additional HSCI content (e.g., epidemiology, environmental health, global health); v) provide opportunities for applied research such as clinical, population-level, or community-based research; vi) reduce current credit requirements for degree completion; and vii) explore distinctive programming options compared to other regional institutions and, where feasible, flexible options.
3. Formulate a plan that aims to increase student enrolments and retention.

Medium (6 months to 1 year)

1. Develop and implement an effective marketing and communication strategy.
2. Implement Senate-approved program revisions.
3. Increase experiential learning opportunities in the program.
4. Initiate development of Public Health/Health Education curriculum.

Summary – Recommendations/cont'd.

Long Range (1 to 5 years):

1. Implement Public Health/Health Education curriculum for the BSc Health Science, and explore the possibilities of a new degree program in Public Health/Health Education.
2. Implement a co-op option.
3. Conduct ongoing evaluation of the HSCI Program, including assessment of the changes instituted from the baseline Self-Study Report and External Reviewers Report.
4. Build upon existing research infrastructure to incorporate more applied research projects that engage Health Science students.

Based on this assessment the following quality assurance goals and 5-year action plan have been formulated.

QUALITY ASSURANCE (QA) GOALS

GOAL 1: Increase student recruitment and promote student retention and satisfaction.

RATIONALE FOR THIS GOAL: The overall Program FTE head count has increased since 2013 and the proportion indicating they are HSCI-intended has grown (but is likely due to students who select “intended” as a means to enrol in the long waitlisted HSCI 1115 (Introduction to Health Science) to complete the Health Foundation Certification Program). Enrolment for the second year mandatory HSCI 2220 Medical Terminology course was assessed (2015 to Spring 2019) and showed a change of +177%; however full annual course enrolments of 35 students in the upper level courses has yet to be achieved. Difficulties enrolling into required courses, along with upper level HSCI elective options, have made it challenging for students to progress through the program as planned, limiting overall satisfaction.

Recommendation(s) this Goal Addresses	Report (page number)
Chapter 2, Self-Study (validated in External Review Report): Recommendation to have <i>“Continued Program promotion and strategies to encourage enrolments and minimize attrition...as an example, marketing to institutions from regions such as Vancouver Island may facilitate student transfers to the Program.”</i>	HSCI Self-Study, page 23; External Review, page 2
Chapter 4, Self-Study (validated in External Review Report): Recommendations to offer a progression of courses for students, conduct targeted advising, reserve seats for required courses, and have better tracking mechanisms of HSCI degree students.	HSCI Self-Study, page 62;
Chapter 6, Self-Study (validated in External Review Report): Recommendation C-CO:8 which states <i>“Develop a communication and marketing strategy that educates the public about the HSCI Program and how it benefits employers and B.C.’s economy.”</i>	HSCI Self-Study, page 68
Chapter 7, Self-Study (validated in External Review Report): Dean’s recommendation to investigate marketing non-lab upper level courses to non-HSCI/Biology students, not just those from FSH.	HSCI Self-Study, page 80
External Review Report: <i>“Moving forward, the program should attempt to address the following issues: 1) address course availability in later years, and for required courses, 2) focus on student retention...”</i>	External Review, page 4

GOAL 2: Expand applied and experiential opportunities within the HSCI Program’s curriculum and research programming.

RATIONALE FOR THIS GOAL: One of KPU’s foundational values is experiential learning. Currently, there are numerous opportunities for experiential learning in laboratory sciences and upper level research courses within the HSCI program. However, there is a need to offer more experiential opportunities both in the HSCI curriculum and student research opportunities.

Recommendation(s) this Goal Addresses	Sources (page number (s))
Chapter 2, Self Study (validated in External Review Report): Recommendations which summarize the need to align program offerings to the Ministry of Advanced Education, Skills & Training’s competencies, KPU’s Vision 2023 academic plan, and similar HSCI programs in Canada. In addition, there is a need to continue HSCI Program promotion and strategies to encourage enrolments and minimize attrition.	HSCI Self-Study, pages 23 & 67-68; External Review, pages 2
Chapter 3, Self-Study (validated in External Review Report): 1) Recommendations to adopt drafted program learning outcomes and competencies, as well as Essential Knowledge, Skills, Values and Attitudes that comprise the Health Science discipline; and 2) Institutional Analysis and Planning (renamed to Office of Planning and Accountability (OPA) survey results suggesting general endorsement by students, faculty, and health sector stakeholders for a Public Health/Health Education specialization to the degree.	HSCI Self-Study, pages 26, 28-31, 33-41, 44, 50, & 65-68; External Review, page 3
Chapter 4, Self Study (validated in External Review Report): 1) Analysis of program satisfaction textual responses of OPA survey from students identifying need for more health science content and experiences; and 2) Recommendations to build on the Program’s infrastructure, computer resources, and research opportunities.	HSCI Self-Study, page 60, 62, & 65-68; External Review, page 4
Chapter 6, Self Study (validated in External Review Report): Recommendations for changes to the current HSCI degree program; and 2) Recommendations for degree stream in public health/ health education.	HSCI Self-Study, pages 70-73, 74-77; External Review, page 6
Chapter 7, Self Study (validated in External Review Report): Recommendations from Dean to offer co-op component	HSCI Self-Study, page 80

GOAL 3: Enhance the individual HSCI Program profile and identity.

RATIONALE FOR THIS GOAL: Confusion exists about the program and what distinguishes it from the biology degree. The external review team inquired about the program’s positioning and identity within KPU’s infrastructure. Student survey and focus group feedback includes suggestions to build more human health science-focused components. Based on the self-study, there was general desire from students, faculty, and health sector stakeholders for a degree specialization in Health Education and Public Health. As identified in the HSCI Self-Study report, program identity could be strengthened by defining clear program and learning outcomes, providing relevant HSCI course offerings and course content similar to other HSCI degrees in Canada, increasing participation in key KPU events, building on community outreach initiatives, and formulating a clear marketing and communication strategy.

Recommendation(s) this Goal Addresses	Sources (page number (s))
External Review Report: Recommendation to enhance the individual profile and identity of the Health Science degree program.	External Review, page 6
Chapter 2, Self Study (validated in External Review Report): 1) Recommendations which summarize the need to align program offerings to the Ministry of Advanced Education, Skills & Training’s competencies, KPU’s Vision 2023 academic plan, and similar HSCI programs in Canada; 2) Recommendations to increase links with other Departments and Faculties (e.g., Business, Design) and community partners.	HSCI Self-Study, page 23 & 67-68; External Review, page 2
Chapter 3, Self-Study (validated in External Review Report): 1) Recommendations which highlight the Essential Knowledge, Skills, Values and Attitudes for a Health Scientist; and 2) Chapter 3, Self-Study OPA survey results suggesting general endorsement by students, faculty, and health sector stakeholders for a Health Education/Public Health specialization to the degree. Validation of Self-Study chapter 3 recommendations in External Review Report.	HSCI Self-Study, pages 29-31, 44, 50, & 65-67; HSCI Self-Study Appendices pgs. 15-102; External Review, page 3
Chapter 5, Self Study (validated in External Review Report): 1) Recommendations for changes to current HSCI degree program and 2) Recommendations for degree stream in health education/public health. Validation of Self-Study chapter 5 recommendations in External Review Report.	HSCI Self-Study, pages 70-77; External Review, page 6

QUALITY ASSURANCE (QA) FIVE-YEAR ACTION PLAN

MONTH/YEAR WHEN THE FIVE-YEAR ACTION PLAN BEGINS: 09/2019

STRATEGY 1: Increase student recruitment and retention with the aim of having at least 35 students that complete the program annually.

GOAL(S) THIS STRATEGY SUPPORTS: GOAL 1: Increase student recruitment and promote student retention and satisfaction.

Step(s) Required to Achieve this Strategy	To be Led by	To Begin on (M/YY)	To be Completed By (M/YY)
1. Develop progression plans in conjunction with academic advisor to ensure students can complete their degrees according to plan and on time. In each semester, offer at least one third-year and one fourth-year HSCI course elective.	Program Chair, Degree Advisors	01/2020	09/2024
2. Increase the number of reserved seats in key courses that HSCI students are having difficulties registering for to facilitate smooth progression in the program.	Program Chair	01/2020	09/2024
3. As enrolments increase, offer more HSCI electives and institute HSCI-specific sections for core courses to ensure there is sufficient space for HSCI student enrolment.	FSH Dean & Program Chair	01/2020	09/2024
4. Develop and implement a marketing strategy aimed at increasing student recruitment and retention. Make use of FSO outreach resources for high school settings.	Program Chair & FSH Comm. Event Specialist	01/2020	09/2024
5. Implement student advisor visits during class time (e.g., key courses offered early in the program, such as HSCI 1115 and 2220).	Program Chair & Degree Advisors	01/2020	09/2024

Resource Implications (if applicable)
What are the resources required to achieve this Strategy? <i>FSH Communications and Event Specialist; Degree Advisors</i>
When are these resources required? <i>As soon as feasible.</i>
What Faculty and/or Institutional support is required? <i>Faculty input needed in marketing strategy development and in supporting events; broader support from KPU Media and Communications, FSO, Office of Global Engagement, and Office of Strategic Enrollment</i>

QA Plan / cont'd.

STRATEGY 2: Integrate more experiential opportunities within the HSCI Program’s curriculum and research programming

GOAL(S) THIS STRATEGY SUPPORTS: **GOAL 1:** Increase student recruitment and promote student retention and satisfaction; and **GOAL 2:** Expand applied and experiential opportunities within the HSCI Program’s curriculum and research programming; and **GOAL 3:** Enhance the individual HSCI Program profile and identity.

Step(s) Required to Achieve this Strategy	To be Led by	To Begin on (M/YY)	To be Completed By (M/YY)
1) Introduce a practicum-based/job shadowing elective (HSCI 3110 Applications in Health Science).	Program Chair	01/2020	01/2021
2) Develop experiential components for key courses, especially in HSCI-specific courses.	Program Chair	01/2020	Ongoing
3) As feasible, develop research projects and programming that meet HSCI students’ needs.	Program Chair	01/2020	Ongoing
4) Based on outcomes of current HSCI co-op pilot project, develop it into a regularly offered co-op option as part of the HSCI program.	Program Chair & FSH Co-op Instructor	01/2020	09/2024

Resource Implications (if applicable)
What are the resources required to achieve this Strategy? <i>Experiential learning components will require specific resource allocations related to individual courses (e.g., supplies, equipment requirements, faculty time), as well as support from community health organizations</i>
When are these resources required? <i>As soon as feasible as courses are implemented</i>
What Faculty and/or Institutional support is required? <i>Any institutional supports currently in place that facilitates community partnerships will help drive these initiatives.</i>

QA Plan / cont'd.

STRATEGY 3: Revise the HSCI B.Sc. degree and develop Health Education/Public Health curriculum; conduct process evaluation of each initiative

GOAL(S) THIS STRATEGY SUPPORTS: **GOAL 1:** Increase student recruitment and promote student retention and satisfaction; **GOAL 2:** Expand applied and experiential opportunities within the HSCI Program’s curriculum and research programming; and **GOAL 3:** Enhance the individual HSCI Program profile and identity.

Step(s) Required to Achieve this Strategy	To be Led by	To Begin on (M/YY)	To be Completed By (M/YY)
1) Implement degree program changes. Conduct annual process evaluations and report at Biology Faculty meeting.	Program Chair	01/2020	01/2024
2) Based on stakeholder consultations and departmental discussion, develop and implement curriculum for a new degree that aligns with the Certified Health Education Professional competencies.	Program Chair	01/2020	09/2024

Resource Implications (if applicable)
What are the resources required to achieve this Strategy? <i>Curriculum and program development for a new Health education and public health degree will require resources yet to be determined.</i>
When are these resources required? <i>As soon as is feasible</i>
What Faculty and/or Institutional support is required? <i>To be determined.</i>

QA Plan / cont'd.

STRATEGY 4: To build the HSCI Program's individual profile and identity.

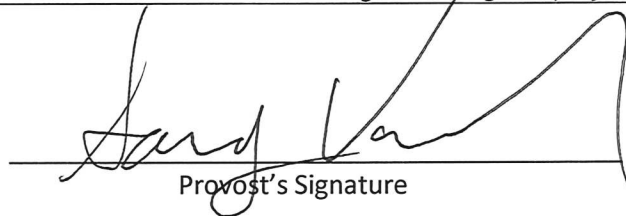
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Step(s) Required to Achieve this Strategy	To be Led by	To Begin on (M/YY)	To be Completed By (M/YY)
1) Establish a Health Science Program sub-committee within the Biology department that ensures the HSCI Program is meeting intended program/ learning outcomes.	Program Chair	01/2020	Ongoing
2) Develop a program-specific website that highlights features such as faculty expertise, research opportunities, alumni careers, program events, as well as HSCI program-specific branding for outreach events and advertisement.	Program Chair & Marketing	01/2020	Ongoing
3) Code core HSCI courses with HSCI acronym and cross-list where appropriate.	Program Chair	01/2020	01/2021
4) Develop a health science minor.	Program Chair	01/2020	01/2021

Resource Implications (if applicable)
What are the resources required to achieve this Strategy? <i>Financial resources allocation to HSCI Program for promotional materials. Faculty time to develop and appropriately assess curriculum.</i>
When are these resources required? <i>As soon as is feasible</i>
What Faculty and/or Institutional support is required? <i>Faculty and institutional resources (e.g., Marketing and Communications, Future Students Office, Office of Global Engagement) will need to assist with enhancing HSCI Program profile and identity.</i>

PLAN SUPPORTED BY:

Sandy Vanderburgh
Provost's Name


Provost's Signature

December 6, 2019
Date

Elizabeth Worobec
Dean's Name


Dean's Signature

December 5, 2019
Date