

Graduate Programs in Health: Science, Technology and Policy (HSTP)  
 Update on Unit Response to External Reviewers' Report & Action Plan  
 Programs Being Reviewed: Graduate Programs  
 Completed by: Martin Holcik, PhD  
 Approved by Dean: Dr. Maria DeRosa, Dean, Faculty of Science, November 9, 2023

Note: This document is made available for public posting on the Vice- Provost's website.

\*\*\* Denotes items that SQAPC would like the unit to pay particular attention to based on their past review of the original action item.

External Reviewer Recommendation	Original Action Item	Owner & Timeline	Progress Update September 2023	Have calendar changes been initiated or completed (Not applicable/Yes/No), if Yes, when
1. <b>Recommend</b> a review of the existing learning objectives and DLE's to ensure their strong alignment with the mission of the program and their application and assessment throughout the curriculum.	<i>Review the existing learning objectives and DLE's to ensure their strong alignment with the mission of the program and their application and assessment throughout the curriculum.</i>	Graduate Curriculum Committee (GCC)	<i>We have formed a GCC to review the current learning objectives and DLE's to assess alignment with the mission of the program. GCC scheduled to review Fall 2023.</i>	<i>Not applicable</i>
2. <b>Recommend</b> establishing a standing program curriculum committee to allow a more consistent oversight of program and a formal process for reviewing program-level learning outcomes assessment.	<i>Create a graduate curriculum committee (GCC)</i>	Department Chair	<i>The GCC will act as the standing committee to ensure more consistent oversight of the program.</i>	<i>Not applicable</i>
3. <b>Recommend</b> streamlining the learning objectives across the degree and diploma content to create consistency in the curriculum	<i>Review the existing learning objectives for both MSc and GDip; align LOs to create consistency in the curriculum</i>	GCC	<i>The HSTP Coordinator has requested that the instructors in the program share their syllabi so the GCC can initiate a review starting October 2023 in order to streamline objectives.</i>	<i>Not applicable</i>
4. As part of the work of the standing program committee, it is <b>recommended</b> that a clearer statement about how each of the learning objectives relate to the overall vision and philosophy of the program, how they are integrated into the overall curriculum and specifically	<i>Review existing LOs, reword statements to align with the program vision. See also #1 above.</i>	GCC	<i>See # 1 above; the GCC will work to develop a clearer overall vision and philosophy for the program beginning Fall 2023 through Winter 2024.</i>	<i>Not applicable</i>

<p>assessed to ensure that the degree-level expectations are met.</p>				
<p>5. <b>Recommend</b> that the committee also strongly considers the relationship and importance of understanding “technology” in relation to health policy—the lack of a significant element of critical technology evaluation within the program until quite recently is a missed opportunity that should either be de-emphasized from the title of the program or strengthen in its delivery.</p>	<p><i>Budget request for 1.0 FTE new Faculty position</i></p> <p><i>The health technology component of the HSTP program is poorly represented, partly due to the lack of health technology expertise within the unit. A new faculty hire would fill this gap. We envision that this hire could be jointly recruited with the Faculty of Engineering, Biomedical Engineering in particular. In addition to strengthening our core expertise and research in the area of health technologies, this position would align extremely well with our recent joint CFI initiative to create a Tissue Engineering and Applied Materials (TEAM) hub. Development of new special topics course(s) with a focus on health technologies, including health program evaluation tools and methods, will complement HLTH 5350 (New Health Technologies) and also address recommendation #14 (below).</i></p>	<p><i>GCC/Department/ODS</i></p>	<p><i>We have made some progress with this recommendation. In the HLTH5350 (New Health Technologies) course, there have been partnerships established to work with Bruyere to assess and test new health technologies.</i></p> <p><i>We received 1 FTE tenure-track position. Following an extensive search, there is an offer out to a potential faculty member who will strengthen the core expertise in our department around health technologies. Additionally, in collaboration with FED, one of our faculty members has led the development of a Tissue Engineering and Applied Materials (TEAM) hub. This group will work to advance research on new health technologies and may have opportunities to support student training.</i></p> <p><i>These initiatives will support the development of new special topics course(s) with a focus on health technologies.</i></p> <p><i>Finally, we are exploring opportunities for students to take relevant courses in engineering.</i></p>	<p><i>Not applicable</i></p>
<p>6. <b>Recommend</b> that the final IHRP presentations occur in the large common area on the first floor to increase exposure of the HSTP program to the larger departmental audience and foster greater exposure to undergraduates who are interested in graduate education.</p>	<p><i>HSTP IHRP presentations were part of the annual Health Sciences Research Day until 2020 when COVID-19 restrictions precluded us from organizing a Research Day. We will continue once COVID-19 restrictions are lifted. Funding will be</i></p>	<p><i>Department</i></p>	<p><i>This past year, all HSTP IHRP presentations were part of our Health Sciences Research Day. In addition to presentations, we had a poster session. Lunch and refreshments were provided. All undergraduate students were invited to attend to increase exposure to our graduate programs and research.</i></p>	<p><i>Not applicable</i></p>

	<i>requested for poster boards rental and refreshments.</i>			
7. <b>Recommend</b> some thought be given to establishing a program specific ‘home base’ where students in the program have opportunities for cohort-based social engagements to build program identity and cohesion.	<i>Physical space dedicated to HSTP cohorts exists (HSB1104 and HSB1105). In addition, graduate student lounge on L4 of HSB is available to HSTP students. We will add comfortable seating to this space. Health Sciences Graduate Student Society (HSGSS) has been formed in 2019 and it also represents HSTP students. We will continue to liaise with HSGSS (via HSTP coordinator) and encourage participation of HSTP students in HSGSS.</i>	<i>Department</i>	<i>HSTP students have been made aware that they have access to the following physical spaces: HSB1104 and the graduate student lounge on L4 of HSB. We have returned to in-person orientation sessions, where we have provided a tour of the available spaces and initiated introductions to other students, staff and faculty. The HSGSS has actively worked to recruit HSTP students as part of the society.</i>	<i>Not applicable</i>
8. <b>Recommend</b> that the HSTP faculty and senior administration discuss growth of this program and a commitment to an annual marketing initiative to attract quality applicants from other domestic and international institutions as well as working professionals interested in the MSc or Type 3 GDip.	<i>Prepare advertisement campaign and potentially a recruitment tour(s). However, completion of points 11, 13, and 15 is required before proceeding.</i>	<i>Department</i>	<i>The department chair, HSTP coordinator, graduate advisor, and graduate administrator are working to create a Fall 2023 recruitment campaign as a blueprint for future campaigns. They will share details about the program with undergraduate students at Carleton and strategize for broader recruitment beyond Carleton.</i>	<i>Not applicable</i>
9. <b>Recommend</b> a dedicated Graduate Administrator; but only if the program were to experience significant growth, and if possible that the current Graduate Administrator be given this sole role to ensure program continuity.	<i>Budget request for 1.0 FTE administrative position</i>	<i>Department Chair/ODS</i>	<i>The budget request for a dedicated Administrator was denied. A new request will be made in 2024/25 budget cycle.</i>	<i>Not applicable</i>
10. <b>Recommend</b> that (A) all projects be brought into the umbrella of one course code (i.e., HLTH 5505), and (B) that project learning objectives be tied to consistent student assessment strategies that look at individual contributions to group projects with clear and specific criteria expected of each student. Assessing the demonstrated skills and competencies of each individual student and their intellectual contributions to project	<i>(A) Implement calendar change  (B) Develop assessment tools and rubrics for consistent assessment of all students (see also 12, below)</i>	<i>(A) Graduate advisor/graduate administrator  GCC/HSTP coordinator</i>	<i>A) All projects have been brought under the umbrella of one course code, Interdisciplinary Health Research Project (HLTH 5507).  B) Projects are assessed by supervisors, as they always have been, and graded based on individual contribution. The final submissions are also quality-checked by the</i>	<i>Initiated</i>

<p>deliverables will minimize the potential that the same grade be given to multiple students despite disproportionate contributions in the final product of their IHRP.</p>			<p><i>HSTP coordinator. The assessment guidelines are shared with HSTP project supervisors. We will ensure all evaluators have the evaluation criteria established by the GCC.</i></p>	
<p>11. <b>Recommend</b> that the HSTP program revisit the program mission and intended scope moving forward considering 1) the historical faculty group that crafted this course-based program in 2010 are not reflective of the current HSTP Program Committee, and 2) the advent of a research-based MSc now exists. The HSTP program should place an emphasis on a clear articulation and differentiation between the course-based HSTP and the research-based program.</p>	<p><i>While CPR was in progress HLTH 5801 (Practicum Placement) was developed and implemented. Also, a number of external partners were recruited to act as group-research sites. These changes have clearly separated the HSTP program from the thesis-based program, which was also reflected in ad hoc exit interviews with 2022 graduating class. Furthermore, we will implement a practicum-based stream that will solidify the distinction between the HSTP and thesis programs (also see #15 below).</i></p>	<p><i>Department/ODS, GCC</i></p>	<p><i>The GCC will work to address the mission and scope (as noted in 1, 2, 4 – these will be concurrent steps). This work will begin Fall 2023 through Winter 2024. The Practicum stream was developed for Fall 2024 intake (see also #13, 15)</i></p>	<p><i>Not applicable</i></p>
<p>12. <b>Recommended</b> that the HSTP program establish clear and specific criteria regarding expectations and evaluation of a student’s specific intellectual contribution to the IHRP. Furthermore, these guidelines should be consistent across internal faculty and external community supervisors.</p>	<p><i>Develop assessment tools and rubrics for consistent assessment of all students; share these with internal and external supervisors and integrate into HSTP handbook</i></p>	<p><i>GCC/HSTP coordinator</i></p>	<p><i>Projects are assessed by supervisors, as they always have been, and graded based on individual contribution. The final submissions are also quality checked by the HSTP coordinator. We will ensure all evaluators have the evaluation criteria established by the GCC.</i></p>	<p><i>Not applicable</i></p>
<p>13. <b>Recommend</b> that the HSTP program further consider possible alternative options in satisfying the project interests of their students. As per the recommendation to revisit the branding of their program; an alternative approach could be to offer students a choice of either the existing research (HLTH 5505) or practicum (HLTH 5801) streams.</p>	<p><i>See #15 below.</i></p>	<p><i>Department Chair/ODS/GCC</i></p>	<p><i>A practicum stream, HLTH5506 Field Research and Placement (as an alternative to the IHRP), has been created, approved, and in the calendar. Enrollment in the practicum stream will begin in Fall 2024 (see 15 below).</i></p>	<p><i>Completed</i></p>

<p>14. <b>Recommend</b> a review of elective curriculum that complement the HSTP program and solidify the annual availability to students, particularly during the Summer term.</p>	<p><i>Review existing course offerings; reach out to uOttawa to examine existence of suitable course offerings; consider development of new courses (see also #5 above)</i></p>	<p>GCC</p>	<p><i>This has been ongoing, the HSTP coordinator and graduate administrator review, prepare, and present an electives session to all HSTP students. We provide up to date information on relevant courses offered at Carleton and UOttawa</i></p>	<p><i>Not applicable</i></p>
<p>15. <b>Recommend</b> the HSTP program committee consider the different needs from the eclectic mix of student learners. A choice for students between a research or practicum stream IHRP could address their varying educational and vocational desires.</p>	<p><i>Since the time of CPR, practicum placements were developed as part of HSTP course electives (HLTH 5801). This practicum supports students in gaining relevant and practical experience through applying course learning at approved organizations. Students are responsible for arranging the placement with an external partner where the practicum will be held, preparing a learning contract, and completing a field-based project deliverable (agreed upon by student, external partner, and the HSTP coordinator). Additionally, the department has established relationships with some external partners and the HSTP coordinator will share practicum opportunities with students.</i></p> <p><i>The GCC is in the process of drafting a recommendation to create a practicum-only stream option. Following the Departmental vote, changes to the calendar will be implemented.</i></p>	<p>Department Chair/ODS/GCC</p>	<p><i>Since the initiation of the cyclical review, 15 students have successfully completed elective practicum placements.</i></p> <p><i>A practicum stream, HLTH5506 Field Research and Placement (as an alternative to the IHRP), has been created, approved, and in the calendar. Enrollment in the practicum stream will begin in Fall 2024. The department has established relationships with external partners who will have ongoing practicum placements (e.g. Queensway Carleton Hospital, Bruyère, Canadian National Institute for the Blind (CNIB)). Students will also have the opportunity to seek out practicum placements.</i></p>	<p><i>Completed</i></p>

**Graduate Programs in Health: Science, Technology and Policy (HSTP)**  
**Update on Learning Outcomes Assessment Activities**  
**Programs Being Reviewed:** Master of Science in Health, Science, Technology and Policy  
**Completed by:** Martin Holcik, PhD

**1. Who is responsible for the assessment of program learning outcomes?**

- Learning Outcomes Assessment Committee
- Undergraduate/Graduate and/or Curriculum Committee(s)
- All faculty in unit
- Other:

**2. Which program learning outcomes have been assessed since your last CPR? If no assessment activities were undertaken, please provide a rationale and describe what is required in order for assessment to take place moving forward.**

We have initiated the formation of our GCC, but this process has been delayed due to 4 faculty members on sabbatical and one on stress leave in Summer/Fall 2022 and Winter 2023. The remaining department members were under a great deal of stress and could not prioritize these assessments. We have now established our GCC and plan to make significant progress over the fall and winter semesters.

**3. Did you follow your assessment plan? If not, how did your assessment plan change and why?**

We have followed our established plans to address the recommendations from the cyclical review committee. In addition, we are working with Dr. Laura Pickell, a pedagogy specialist and Departmental teaching mentor who is leading the undergraduate review (she is a GCC member) and drawing on assessments completed in Biology and Food Science to further guide our plans.

**4. What methods have been used to assess the program level learning outcomes? (check all that apply)**

- Reviews of examples of student work
- cuPortfolio
- Student surveys or focus groups
- Faculty retreats or discussion sessions
- Reviews of program curricula and courses (*includes efforts to align course and program learning outcomes*)
- Other \_\_\_\_\_

**Provide additional details if necessary:**

We have provided specific details in our monitoring report. We are in the early stages of these assessments but have had a faculty retreat and run informal focus groups with HSTP students. We have requested syllabi from current instructors in the program.

**5. What assessment activities are planned between now and your next CPR? Provide specific LOs and timeframes.**

The GCC has mapped out the following steps to address recommendations suggested in the cyclical review. Given how interconnected many of the recommendations are, some of the below-mentioned activities will happen concurrently. First, we plan to review the *current learning objectives and DLE's to assess alignment with the mission of the program (Fall 2023/Winter 2024)*. In order to do this, we will review the syllabus for each course to ensure program-level learning outcomes are being met. This will also help us assess areas of strengths and weaknesses (Fall 2023/Winter 2024). Second, once hiring for the New Technologies position in our department is finalized, we will determine what additional elective courses could be created to improve the 'technology' training in the program (Winter 2024). We will explore convenient times to offer these electives (such as summer sessions). Finally, we are exploring opportunities for students to gain access to relevant courses in engineering through the new Biotech MSc program. Pending the completion of these assessments, we will work to develop a clearer vision and philosophy for the program that aligns with the current faculty expertise.