

# UTQAP Cyclical Review: Final Assessment Report and Implementation Plan

## 1 Review Summary

<b>Program(s) Reviewed:</b>	Paramedicine (HBSc): Specialist (Joint program)
<b>Units Offering Program(s):</b>	School of Community and Health Studies, Centennial College  Department of Biological Sciences, University of Toronto Scarborough
<b>Commissioning Officer:</b>	Associate Vice President, Applied Research, Hyflex Learning and Academic Partnerships, Centennial College  Vice Principal, Academic and Dean, University of Toronto Scarborough
<b>Reviewers (Name, Affiliation):</b>	<ul style="list-style-type: none"> <li>• Prof. Christian Vaillancourt, Department of Emergency Medicine, University of Ottawa</li> <li>• Prof. Gerard Bury, University College Dublin, School of Medicine, Health Sciences Centre</li> <li>• Prof. Steven Liss, Faculty of Science, Toronto Metropolitan University</li> <li>• Prof. Ian Blanchard, EMS Health Systems, Alberta Health Services</li> <li>• Caroline Minks, Student Reviewer</li> </ul>
<b>Date of Review Visit:</b>	November 2-3, 2022
<b>Review Report Received by VPAP:</b>	January 19, 2023
<b>Administrative Response(s) Received by VPAP:</b>	October 6, 2023
<b>Date Reported to AP&amp;P:</b>	October 24, 2023

## Previous UTQAP Review

**Date:** May 28, 2013

### Summary of Findings and Recommendations

#### Significant Program Strengths

- Leader in Canadian paramedic education
- Highly qualified applicants
- Use of non-academic skills as part of the admissions screening process
- Innovative assessment methods
- Outstanding teaching and research activities of faculty

#### Opportunities for Program Enhancement

- Developing specific overall learning outcomes that define the unique contribution the program offers to paramedic education
- Ensuring consistency in the university and college student experience
- Providing a more flexible curriculum with additional upper-year university courses
- Strengthening a shared vision between UTSC and Centennial
- Tracking retention, graduation, and post-graduation experiences

## Current Review: Documentation and Consultation

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### Documentation Provided to Reviewers

1. About the University and UTSC: UTSC Strategic Plan, 2020-25; UTSC Academic Plan (2015-20); UTSC Admissions Viewbook (2021-22); Campus Virtual Tour; Interactive Campus Map.
2. About the Review: Terms of Reference; Review Report Template; Remote Site Visit Schedule.
3. About the Program: Previous External Review Report (2013); Program Self Study, October 2022.
4. About Programs and Courses: Description of all programs; Description of all courses; Self-Study Data; Curriculum Mapping
5. Course Syllabi (all courses).
6. Faculty CVs (all faculty).

### Consultation Process

- The decanal group from UTSC, including the Vice-Principal Academic and Dean; Vice-Dean Teaching, Learning and Undergraduate Programs; Associate Dean, Undergraduate Programs & Curriculum, Associate Dean; Assistant Dean, Office of the VP Academic and Dean; and Academic Programs Officer

- The decanal group from Centennial College, including Associate Vice President, Applied Research, Hyflex Learning and Academic Partnership; Associate Vice President, Learning Innovation, Teaching Excellence and Academic Quality; Dean, School of Community and Health Services; Director, Academic Excellence and Program Quality; Senior Manager, Office of Academic Partnerships and Pathways
- Departmental Leadership and Program Supervisors – UTSC and Centennial College: Chair of the Department of Biological Sciences (UTSC), Program Supervisor, Specialist (Joint) in Paramedicine (UTSC), Program Coordinator (CC), Chair, Emergency Management and Public Safety Institute (EMPSI)
- Administrative Staff – UTSC and Centennial College: Program Coordinator, Department of Biological Sciences (UTSC), Success Advisor (CC)
- Librarians – UTSC and Centennial College: Chief Librarian (UTSC), Liaison Librarian (UTSC), Librarian (CC), Learning Strategists (CC)
- Registrars – UTSC and Centennial College: Registrar and Assistant Dean (Enrolment Management) (UTSC), Associate Registrar and Director of Systems & Operations (UTSC), Associate Registrar and Manager, Student Recruitment (UTSC), Associate Registrar and Director of Student Services (UTSC), Associate Vice President, Enrollment Services and Registrar (CC)
- Paramedicine program Faculty – UTSC and Centennial College
- Undergraduate students (Year 2 and higher)

## Current Review: Findings and Recommendations

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### 1. Undergraduate Program(s)

*Unless otherwise noted, all bulleted comments apply to all programs reviewed.*

The reviewers observed the following **strengths**:

- Overall quality
  - ▶ UTSC/Centennial College (CC) Joint Program in Paramedicine has much to offer and to be proud of
  - ▶ First of its kind in Canada, and the only program in Ontario with a partnership between a college and university
  - ▶ “This program is uniquely situated in Canada to drive the development of the profession of paramedicine.”
- Objectives
  - ▶ Program requirements and learning outcomes are clear, appropriate and align with the relevant undergraduate and/or graduate degree level expectations
  - ▶ Requirements and learning outcomes for the CC components are clear and focused
- Curriculum and program delivery
  - ▶ Program modules are well designed and taught
  - ▶ Numerous opportunities for student research experience in the third and fourth years of the program

- ▶ Students had only positive experiences participating in research projects and research opportunities at UTSC
- ▶ Last year of the program is often completed part-time, as students are qualified to work as paramedics after completing CC program requirements
- Innovation
  - ▶ CC offers an excellent simulation environment, staffed by experienced paramedics who are clinically active in the field
  - ▶ Elaborate disaster exercise, involving multidisciplinary collaborative efforts, is a unique interprofessional practice opportunity
- Accessibility and diversity
  - ▶ Diverse and welcoming student population a strength of the program
  - ▶ Program offers physical remediation, training, and help to meet physical requirements of the paramedicine field (e.g., the “lifting standard”)
- Assessment of learning
  - ▶ Overall, assessments seem appropriate in format and content
  - ▶ Formative assessments in the CC simulation facility are of particular value
  - ▶ Feedback provided to students during clinical site visits is similar to what they will receive when they begin their careers in the field
- Student engagement, experience and program support services
  - ▶ Students report an excellent experience in CC courses
  - ▶ Students appreciate the experienced UTSC faculty and are generally proud of and engaged with the program
  - ▶ Students benefit from the development of critical thinking skills, independent research, and contributing to the research programs in a research intensive and globally ranked university
  - ▶ Site visit suggests that CC may have a more holistic approach to student wellness, including the recognition and importance of physical and mental health
  - ▶ Embedding CC student support services within library services “appears to be a great model”
- Quality indicators – alumni
  - ▶ Program graduates routinely exceed provincial average on certification (AEMCA) exam; “something you should all be very proud of”
  - ▶ Virtually 100% of graduates find employment in the paramedicine industry immediately following graduation.
- Student funding
  - ▶ Funding sources “appear adequate and were not identified as a source of concern by students”
  - ▶ Student aid sources include emergency aid to offset transportation costs for placements

The reviewers identified the following **areas of concern**:

- Objectives
  - ▶ Reviewers note an impression that “the UTSC component of the program is about keeping a student’s options open to leave paramedicine, rather than creating a paramedic profession that students will stay in for their whole career”
  - ▶ Alignment with degree goals and evolution of the paramedicine field is less clear in UTSC program modules than in CC modules
- Admissions requirements
  - ▶ Narrow registration criteria limits program outreach to primarily Ontario high school students; program has “no apparent port of entry for students with a BSc or other degree into CC, and no apparent entry for out-of-province or international students”
  - ▶ Concerns regarding students’ awareness of, or ability to meet, provincial physical fitness and health requirements for paramedics (e.g., lifting test, medicals, vaccinations, driving requirements, etc.) before entering the program
  - ▶ Provincial requirement for competence-based modules, with mandatory staff/student ratios, is an important issue restricting availability of places in CC program component
  - ▶ Availability of clinical placements and ambulance service attachments are significant issues influencing student numbers
  - ▶ Reviewers note challenges regarding the number of students enrolled in the joint program, as well as the coordination between institutions regarding the determination of this number
  - ▶ Unusually high offer acceptance rate in recent years has led to issues with program over-enrolment; reviewers caution that poor communication between UTSC and CC regarding underlying causes of enrolment issues “may lead to animosity from misunderstanding”
- Curriculum and program delivery
  - ▶ Considerable challenges in program completion for students who stray from prescribed sequence and timeline; staff expressed frustration due to the limited ability to offer accommodation and flexibility even for students experiencing medical or family issues
  - ▶ Lifting test requirements for provincial paramedic certification is responsible for program attrition rate of 25%
  - ▶ Unclear how many students take advantage of research opportunities; students studying part time and working full time as paramedics during their fourth year may not have time to dedicate to building research skillset
  - ▶ Research opportunities seemingly concentrated in the Department of Biological Sciences; reviewers note an apparent lack of exposure to a “vast and growing body of scholarly work produced by research-trained paramedics”
- Accessibility and diversity
  - ▶ Noting the physical and emotional demands of work as a paramedic, reviewers note that “it is unclear how many accommodations could/should ultimately be offered to future health care professionals”

- Assessment of learning
  - ▶ Students suggested they are not prepared for certain practical exams at CC due to insufficient time or clarity regarding the correct methods for clinical procedures
  - ▶ Students raised concerns that practice scenarios are evaluated by their peers rather than experienced clinical mentors
  - ▶ Some challenges noted with lowered grades when students move from UTSC to CC; CC representatives observe that this decline may be related to the shift from theoretical to applied learning
- Student engagement, experience and program support services
  - ▶ Reviewers caution that failure to integrate UTSC and CC program modules may lead to several issues including student and faculty dissatisfaction with the program, duplication of efforts, issues with student performance assessment, registration challenges, overlapping/conflicting courses and other program components, and diminished mutual appreciation and respect
  - ▶ Limited opportunity for students at UTSC to record lectures or obtain class notes when it is necessary to miss a lecture due to a ride-out
  - ▶ Students expressed a desire for more opportunity while at CC to train with an instructor outside regular hours
  - ▶ Limited access to “pre-ride-out clinical placement,” e.g., in long-term care facilities
  - ▶ Opportunity to schedule ambulance ride-outs with preceptors is dependent upon preceptors’ (sometimes limited) availability
  - ▶ Noting variation in paramedic field supervision, reviewers observe that there does not appear to be a process for evaluating preceptors
  - ▶ Reviewers observe “poor alignment” between UTSC and CC in the provision of student support through orientation, advising/mentoring, and student services; “it appears as though there may not be significant collaboration between the two programs that creates educational synergy for the student”
  - ▶ Differences in program regulations (e.g., course drop deadlines) cause confusion for students
  - ▶ Students commented on issues with anatomy tutoring at CC
  - ▶ Reviewers note that few students appear to take advantage of CC’s wellness-centred approach to student support
- Quality indicators – undergraduate students
  - ▶ “Available information suggests there is not very good data collection at either institution regarding a precise completion rate and causes for non-completion”
  - ▶ Student time-to-completion rates may be affected by a variety of factors including “too much material to cover in a four-year course, delays if the student failed a course or section of course, and competing priorities in the last year with full time work”

The reviewers made the following **recommendations**:

- Objectives
  - ▶ “This program should not be designed to provide paramedics with alternative career options once they leave paramedicine, but rather contribute to developing the profession of paramedicine to make it a worthwhile and rewarding career choice.”
  - ▶ Create a culture in which research is considered an essential skill rather than an option for students to pursue, with research skills explicitly tied to program learning objectives
  - ▶ Consider associating UTSC program components with healthcare-focused UTSC units (e.g., Health and Society / SAMIH) to better align with degree objectives and the evolution of the field of paramedicine
  - ▶ Continue mapping program objectives, including mapping course offerings with program level objectives related to research skills
- Admissions requirements
  - ▶ Ensure that applicants are informed of physical fitness and health requirements for paramedic certification (e.g., lift testing), and these requirements are “clear and achievable for each applicant” prior to entering the program
  - ▶ Ensure that other requirements (e.g., health status, immunization, criminal record check, driving record, mask fit testing, etc.) are made clear to applicants and assessed early in the program
  - ▶ Consider alternative entry points to the program, possibly including students from outside UTSC or CC, out-of-province/international students, to expand opportunities for entry and to build the program’s national and international scope
  - ▶ Create alternative pathways, e.g., “diploma to degree and degree to diploma”
- Curriculum and program delivery
  - ▶ Avoid duplication of courses and other program components
  - ▶ Consider providing additional credits for courses meeting both College and University requirements
  - ▶ Consider increasing the proportion of college course credits considered to be university equivalent from the current maximum of 7.5 (especially important if the college program extends to three years)
  - ▶ Allow flexibility for students to take appropriate Biological Sciences courses as electives
  - ▶ Consider integrating Primary Care Paramedic training with Advanced Care or Community Care training, especially if a 3-year College Program becomes the provincial norm
  - ▶ Consider strategies to leverage UTSC program offerings to better complement courses that are required by the Ministry and delivered via CC
  - ▶ Consider revisiting the sequencing of program components, to potentially introduce a broader health-oriented foundation for the UTSC program, and provide more time for students to mature prior to taking on the responsibilities of a paramedic at CC
  - ▶ Continue existing and formalize new opportunities for student involvement in research, including basic evidence-based literacy and key concepts in research

- ▶ Student research opportunities should increasingly introduce and affirm basic to advanced topics describing the full breadth of research methods commonly employed to inform paramedicine
- ▶ “Ensure that clinical and operational teaching is explicitly rooted in the primary research literature, where studies supporting or not supporting clinical and operational interventions are discussed as they are being taught”
- ▶ Explore additional student research opportunities with the UTSC Department of Health and Society
- ▶ Consider offering a fourth-year course to prepare students for the transition to professional life, including recent graduates to describe lived experience and act as mentors
- ▶ Ensure sufficient resources, and effective partnerships with clinical sites and services, to provide clinical placements and ambulance service attachments for students
- ▶ Explore ways to expand the pool of available preceptors, to increase scheduling flexibility and provide greater exposure to different teaching styles and approaches to paramedicine
- ▶ Review content and delivery of the clinical portions of the CC program to identify opportunities to strengthen partnerships with the relevant agencies, improve preceptor skillsets and assessment mechanisms, and ensure that students are developing the key clinical competencies and decision-making skills
- Innovation
  - ▶ With the multidisciplinary disaster exercise as an example, explore ways to incorporate additional interprofessional practice opportunities into the program
- Assessment of learning
  - ▶ Consider competency-based assessments for clinical ride-outs rather than, or as a complement to, a set number of completed hours
  - ▶ Consider introducing portfolio/logbook-based records, either for formative or summative assessments
  - ▶ Expand access to clinical mentors outside of the classroom to help students prepare for certain practical exams
- Student engagement, experience and program support services
  - ▶ “Conscious efforts should be made to integrate both programs at all levels (registrar, faculty, library services, student support, etc.), and create a sense of belonging”
  - ▶ Encourage greater cohesion, integrated programming, and program oversight between CC and UTSC to provide better support and more seamless processes and access to resources for students; reviewers suggest mapping all program processes, from enrollment to graduation, with significant input from students
  - ▶ Develop a process for evaluating preceptors, with outcomes provided to program administration for quality assurance of paramedic supervision
  - ▶ Consider offering/facilitating paramedic mentoring by recent program graduates and/or experienced paramedics



- Student funding
  - ▶ Improved student funding could reduce the number of students needing or wishing to work full-time during the last year of their program

## 2. Graduate Program(s) n/a

## 3. Faculty/Research

The reviewers observed the following **strengths**:

- Research
  - ▶ Faculty are active in research and other scholarly activity
- Faculty
  - ▶ UTSC Department of Biological Sciences shows strong participation in tri-council funding relative to other departments
  - ▶ Both UTSC and CC have talented individuals in the teaching and support staff
  - ▶ Staff complement plans appear appropriate

The reviewers identified the following **areas of concern**:

- Research
  - ▶ UTSC publications and funded projects do not appear to be related to research focused on paramedicine, instead largely reflecting the focus, interests, and expertise of faculty in Biological Sciences
  - ▶ Number of students involved in research is unclear
  - ▶ A coordinated research strategy does not exist between the two programs
- Faculty
  - ▶ UTSC Department of Biological Sciences does not appear to have faculty with research expertise in paramedicine

The reviewers made the following **recommendations**:

- Research
  - ▶ “We believe there exists tremendous potential to have a world-class research program that drives the development of paramedicine, improves the delivery of paramedic training and assessment of competence, and provides opportunities for paramedic student education in research and evidence literacy.”
  - ▶ Create future collaborative research initiatives, informed by challenges, issues and opportunities related to the paramedicine profession, to capitalize on the existing strength of UTSC faculty funding success and CC faculty’s focus on priority gaps in knowledge in paramedicine
  - ▶ Explicitly support UTSC or CC faculty engaged in paramedicine research with protected time and resources

- Faculty
  - ▶ Encourage the recruitment of tenure and teaching track professors who specialize in paramedicine
  - ▶ Consider Adjunct positions or cross appointments between UTSC and CC that can complement teaching or act as mentors for research specific to paramedicine

## 4. Administration

*Note: Issues that are addressed through specific University processes and therefore considered out of scope for UTQAP reviews (e.g., individual Human Resources issues, specific health and safety concerns) are routed to proper University offices to be addressed, and are therefore not included in the Review Summary component of the Final Assessment Report and Implementation Plan.*

The reviewers observed the following **strengths**:

- Relationships
  - ▶ “Leadership, faculty and staff at UTSC and CC bring a high-level commitment to the Joint Program, their respective support for students in each of the components of the program, and respect for each other”
  - ▶ Clear commitment among staff in both institutions to high quality education and excellent subsequent clinical practice
  - ▶ High morale among faculty, students and staff, with appreciation of the support for students and pride in the program
  - ▶ Ambulance services benefit greatly from the high-quality graduates of the program
  - ▶ Annual simulated disaster exercise, involving multiple organizations and stakeholder engagement, reflects the “commitment to partnerships and collaborations that are key to the success of the program”
  - ▶ Program advisory committee that brings together stakeholders from diverse areas of paramedicine
  - ▶ CC leads a partnership with a UK university/ambulance service to provide opportunities for international experience
- Long-range planning and overall assessment
  - ▶ Joint program initiative reflects best practice in international programs in paramedicine
- International comparators
  - ▶ “Program is certainly comparable internationally to equivalent programs, in terms of the quality of graduates - all involved must be complimented on this achievement”
  - ▶ University of Toronto is highly ranked internationally in medicine & life sciences disciplines; ranking information specific to paramedicine is limited but reviewers observe that “development of links with such a highly ranked program must carry benefits for paramedicine”
  - ▶ Curricular components, teaching methods, clinical placements, and assessment methods of the CC program compare well with similar programs

- ▶ Greater representation of diversity relative to other comparators, reflecting the community in Scarborough, the GTA and Southern Ontario, noted as a program strength

The reviewers identified the following **areas of concern**:

- Relationships
  - ▶ Reviewers note “evidence from the site visit that the two institutions are ‘separated’ by a joint program”
  - ▶ Sense of separation between UTSC and CC programs presents challenges and limits how the institutions “can advance both a future learning environment, experiential training, and research that reflect changes unfolding in paramedicine and health care delivery in communities”
  - ▶ Reviewers observe that “there is more of a sense of community during the period in the program based at CC”; asymmetry between experiences at CC and UTSC reflects differences in class size and cohesion amongst the cohort in paramedicine courses
  - ▶ Reviewers observe a “formulaic approach that frames a number of joint programs between the two institutions that has not significantly changed over time”
  - ▶ Ambulance services seem reluctant to provide the essential clinical placements required for training
- Organizational and financial structure
  - ▶ Lack of cross recognition of modules and cross-appointment between programs
  - ▶ Organizational structure does not appear to include an individual at either institution who can coordinate activities across both programs
  - ▶ Space-related challenges at CC for the paramedicine program and library services
  - ▶ “CC expressed the need for increased financial transfer from UTSC which collects all tuition fees for all four years”
  - ▶ Reviewers observed potential disconnects in the views of leadership and staff regarding the future of the joint program, including whether it should continue as is or be re-developed as a facilitated pathway to better serve students
- Long-range planning and overall assessment
  - ▶ Challenges exist in terms of co-ordination, academic integration, staffing and respectful mutual recognition between the two institutions; option for each to end the joint approach noted as a serious threat to the program
  - ▶ Noting “considerable change and shift in scope of work of a paramedic,” the reviewers observe that future developments in the profession could significantly impact the curriculum; noting the possibility of both a 5-year joint program (“which may be too onerous by students”) as well as the creation of a 3-year College baccalaureate program
  - ▶ Little awareness or discussion of the potential opportunity that impending UTSC SAMIH initiatives may provide for the program and the paramedicine profession

The reviewers made the following **recommendations**:

- Relationships
  - ▶ Robust engagement between UTSC/CC and ambulance services is required to strengthen partnerships and ensure clinical placements for students
  - ▶ Strengthen connections with the UTSC Department of Health and Society
  - ▶ Undertake initiatives to enhance a sense of community and *esprit de corps* in the program and between the two institutions
  - ▶ Continue developing relationships with cognate academic units
  - ▶ “Continue to emphasize the increasing importance of social impacts through collaborations, partnerships and community engagement, and to reflect on the impact through regional, national and global perspectives”
- Organizational and financial structure
  - ▶ Develop a collaborative table and governance model in which academic leadership can oversee the joint program in a more integrated and productive manner
  - ▶ Improve teamwork and coordination of enrollment activity between UTSC and CC
  - ▶ “Consider creating a position to better coordinate and plan the joint activities of both programs and better capitalize on existing human resources that have intimate knowledge of both programs”
  - ▶ Moving the UTSC program from the Department of Biological Sciences to the Department of Health and Society “highly recommended” in order to better align with the future of the paramedicine profession and to reduce duplication of courses
  - ▶ Explore opportunities to engage and/or integrate with the Scarborough Academy of Medicine and Integrated Health (SAMIH), in order to strengthen the program, build community, and address the changes in the profession of paramedicine through interprofessional training and experiential learning
  - ▶ Consider opportunities for increasing program resources through philanthropy and/or fundraising, as well as greater collaboration between the two institutions in areas of advancement
- Long-range planning and overall assessment
  - ▶ A better integrated program, taking full advantage of the individual strengths of each institution as well as potential synergies between them, would be a significant boost to the program and the future of paramedicine
  - ▶ “We recommend that emphasis be placed on developing the joint program as an endeavour that will strengthen prospective paramedic careers by driving the development of this nascent profession, rather than providing options for paramedics when they leave the profession.”
  - ▶ “It is clear internationally that where high level integration can be achieved between university and professional training programs, the sum is worth far more than the parts. This is clearly the case with the UTSC/CC joint program - resilience is required at this stage to continue the work needed to achieve this outcome.”
  - ▶ “There needs to be a table to bring to the forefront issues and differing perspectives for example on whether the Joint Program should even continue or whether other learning pathways should be created”

- ▶ “The proposed provincial paramedicine three year ‘decision’ for college programs is a pivotal moment in the program’s history and requires careful thought on the future of the program”; undertake consideration and planning for a potential 5-year program, and the impact of potential provincial requirements for a 3-year diploma for entry to the profession
- ▶ Create or continue with inter- and intra-institution team meetings to discuss the future of the joint program and potential options for evolving and addressing the future of a paramedicine education, training, research, and interprofessional practice
- ▶ Begin developing a research-focused master’s level program in paramedicine

## 2 Administrative Response & Implementation Plan



Office of the Vice-Principal Academic and Dean

September 26, 2023

Dr. Susan McCahan  
Vice-Provost, Academic Programs  
Office of the Vice-President and Provost  
University of Toronto

### Dean's Administrative Response: External Review of the Paramedicine Specialist program, University of Toronto Scarborough (offered jointly with Centennial College)

Dear Susan,

Thank you for your letter of June 8 requesting my administrative response to the external review of the Paramedicine Specialist program (offered jointly with Centennial College). I want to thank the review team - Professor Christian Vaillancourt, Department of Emergency Medicine, University of Ottawa, Professor Gerard Bury, University College Dublin, School of Medicine, Professor Steven Liss, Faculty of Science, Toronto Metropolitan University, Professor Ian Blanchard, EMS Health Systems, Alberta Health Services, and Caroline Minks, Student Reviewer - for their consultation with the Department during the site-visit, held from November 2-3, 2022, and for their Report, which was finalized on January 19, 2023, and shared with the Department.

We deeply appreciate the reviewers' assessment of the program as a leader in Canadian paramedic education, with innovative assessment methods, outstanding faculty teaching and research activities, and a highly qualified applicant pool.

The report from the review team identifies several areas for enhancement and development, including a more integrated approach to the jointly-offered program, clearer communication of physical fitness requirements, changes to curriculum structure and sequencing, increasing student opportunities for research, a coordinated research strategy between the two institutions, shifting the administrative home for the program, and continued joint discussions about the future of the program. With this letter you will find below a table which summarizes the responses to the specific recommendations of the reviewers, and their anticipated timelines for implementation.

It will be helpful to note that effective July 1, 2023, the Joint Specialist is now administered at UTSC in the Department of Health and Society. Accordingly, this response has been developed with the Chair of the Department of Health and Society, in close consultation with counterparts at Centennial College.

Once again, I thank the review team for their insightful and valuable review of the program. I look forward to supporting the Department, and working together with leadership at Centennial College, in implementing the recommendations of this report.

The Dean's Office will monitor the implementation of recommendations through ongoing meetings with the Chair of the Department of Health and Society and regular meetings with the Joint Programs Steering Committee (UTSC/CC). An interim report to the Office of the Vice-Provost, Academic Programs will be prepared in **Fall 2026**. The next external review of the Joint Specialist will take place no later than **Fall 2029**, together with the external review of the Department of Health and Society and its programs.

Sincerely,

A handwritten signature in black ink, appearing to read "WAG", written in a cursive style.

William A. Gough  
Vice-Principal Academic & Dean

## 2022-23 UTQAP Review of the UTSC Paramedicine Specialist program (offered jointly with Centennial College) - Review Recommendations

Please do the following for each recommendation in the table:

- If you **intend** to act on a recommendation, please provide an **Implementation Plan** identifying actions to be taken, the time frame (short, medium, long term) for each, and who will take the lead in each area. If appropriate, please identify any necessary changes in organization, policy or governance; and any resources, financial and otherwise, that will be provided, and who will provide them.
- If you **do not** intend to act on a recommendation, please briefly explain why the actions recommended have not been prioritized.
- In accordance with the UTQAP and Ontario's Quality Assurance Framework, “it is important to note that, while the external reviewers’ report may include **commentary** on issues such as faculty complement and/or space requirements when related to the quality of the program under review, **recommendations** on these or any other elements that are within the purview of the university’s internal budgetary decision-making processes must be tied directly to issues of program quality or sustainability” (emphasis added)
- You may wish to refer to the [sample table](#) provided by the Office of the Vice-Provost, Academic Programs

<b>Request Prompt</b> <i>verbatim from the request</i>	<b>Rec. #</b>	<b>Recommendations from Review Report</b> <i>verbatim from the review report</i>	<b>Program Response</b>	<b>Dean’s Response</b>
The reviewers noted the need for a more integrated and cohesive approach to the jointly-offered program; they recommended that UTSC and Centennial College seek greater alignment of program goals, reduce overlaps and conflicts between courses and other curriculum components, create a more seamless student experience with access to support resources, and develop a collaborative governance model for program planning and oversight.	1	“We cannot give too much importance to the need for seamless integration between the UTSC and CC programs (and joint support staff).”	We have defined seamless integration as ensuring a unified and coordinated approach that allows the two institutions to operate together without obstacles, misalignment, or noticeable disjunctions. We have organized our planned efforts along the following domains: (a) curriculum alignment, (b) technological integration, (c) academic collaborations, (d) student support, (e) administrative coordination, (f) cultural alignment (i.e., culture of collaboration, shared values and belonging across students, staff, administration), (g) administrative obligations, (h) assessment and continuous improvement, (i) communication strategy, (j) resource sharing, (k) accessibility, and (l) conflict resolution mechanisms. These are discussed further below with key measurable objectives for each.  <b>Timeline:</b> short, medium and long term	The Dean’s Office is providing funding for the hiring of a dedicated program coordinator (0.5 FTE) who will be embedded in the Department of Health & Society to better support the program in these aims.  This position will work closely with the soon to be hired Joint Programs Coordinator who will work closely with their counterpart at Centennial to oversee administrative functions related to all UTSC/Centennial College joint programs.
	2	“Duplication of courses should also be avoided, and consideration given (especially with the expected expansion to a 3-year college program) to providing	The joint Paramedicine program has transitioned to the Department of Health and Society (DHS). Our coordinated and collaborative review of the	Our understanding is that the proposed transition to a 3-year college diploma program continues to be discussed but has



		additional credits for courses meeting both College and University requirements. Conscious efforts should be made to integrate both programs at all levels (registrar, faculty, library services, student support, etc.), and create a sense of belonging shared by both programs.”	<p>curriculum and planned major program modifications will ensure courses are not duplicated. However, we will continue to monitor this issue as we implement a revised curriculum.</p> <p>Efforts to integrate and where, are described above (see recommendation # 1).</p> <p><b>Timeline:</b> short / medium term</p>	not been approved, nor is there any direction by the Ministry of Colleges and Universities and plans or timelines. We plan to proceed as though there is no change from a 2-year to a 3-year program, until officially notified otherwise. However, The Dean’s office will continue to monitor the diploma program expectations in coordination with the Joint Programs Steering Committee.
	3	“Greater cohesion and integrated programming and oversight between CC and UTSC would lead to better support and more seamless processes and access to resources for students. Process mapping the program from enrollment to graduation, with significant input from students could be a revealing exercise.”	<p>We are collaboratively working on process mapping and diagramming the various steps, activities and workflows that a student goes through from enrollment to graduation. This is intended to help in understanding and refining the student’s journey through the program across both institutions. This will include mapping of: (a) enrollment processes, (b) orientation and onboarding, (c) academic progression and transitions, (d) work-integrated learning, (e) extracurricular activities / opportunities, (e) graduation requirements and planning, and (f) post-graduation support. We anticipate that this mapping will holistically identify bottlenecks, points of confusion and areas in need of improvement now and on an on-going basis.</p> <p><b>Timeline:</b> short / medium term</p>	The Dean’s Office fully supports these exercises which will help the Department situate the program within existing DHS curriculum and the Joint Program landscape.
	4	“The CC model of having support services embedded within the library services appears to be a great	Both Centennial and UTSC have exceptional library services. We are reviewing the services highlighted in	





	model, is much appreciated by students, and should be emulated by or shared with UTSC.”	the review to examine where UTSC processes may be lacking and made to be shared when students are active in both institutions.  <b>Timeline:</b> short / medium term	
5	“Student feedback would suggest that anatomy tutoring at CC was less useful as the tutor was not from the paramedic program and used a different textbook, so there was no continuity of learning. This continuity is essential and should be assured at each institution. Consider offering/facilitating paramedic mentoring by recent program graduates.”	Maintaining continuity of the program is a goal of our planned program curriculum revisions. Currently all joint program students take Anatomy at the Centennial campus, and this has been a successful continuity strategy. Where it would be helpful for faculty or mentors to have paramedicine experience or expertise, this will be facilitated.  <b>Timeline:</b> monitoring	The Dean’s office supports the Departments curriculum mapping and pathways exercises as described, to support these recommendations moving forward.
6	“Continue work mapping program objectives and reduce duplication between programs. One list of research skills that graduates should possess could be created, and course offerings mapped and adapted as required to achieve program level objectives for research.”	Mapping is part of our overall major program modification strategy (see Recommendation #3). Research is provided as an example (this is identified below as well) and serves a priority in our revision plans.  <b>Timeline:</b> short / medium term	
7	“Consider creating a position to better coordinate and plan the joint activities of both programs and better capitalize on existing human resources that have intimate knowledge of both programs.”	Following the program’s move to the Department of Health and Society, Dr. Walter Tavares has been appointed as the program supervisor for the Paramedicine program. Dr. Tavares is a leading expert in Paramedicine, has extensive and detailed knowledge of the Centennial program, and of its networks and partners. Dr. Tavares is also an Assistant Professor in the Department of Health and Society, at the Wilson Centre for Health Professions Education, and leads the Paramedicine Collaborative at the	Resources have been committed for the program coordinator support. The Department of Health and Society which will house the position has begun the process of developing the job posting.



			<p>Department of Family and Community Medicine. We believe Dr. Tavares is well positioned to coordinate and plan joint activities, and to capitalize on resources in and out of both institutions. UTSC is also planning the hiring of an additional program coordinator to assist with academic and administrative duties of joint programs, and for the Paramedicine and Health Professions Certificate Programs.</p> <p><b>Timeline:</b> short / medium term</p>	
	8	<p>“While there will be many points of contact between UTSC and CC, there should be consideration of the governance and academic leadership with greater emphasis on the development of an integrated program, student development and continued support for graduates in the field, and research.”</p>	<p>Centennial and UTSC co-host a joint program steering committee that includes academic leadership, administration leads, program supervisors and students from both institutions who work collaboratively to establish processes and governance of the joint program. This committee also attends to issues of student development and support.</p> <p>Supporting this steering committee are formal program working groups that meet twice annually to discuss program quality, changes to curriculum, student service, administrative service upgrades, and various other ad hoc meetings and discussions. We will explore convening these working groups more frequently to focus discussion on issues identified, such as support for graduates in the field and increasing research capacity.</p> <p>We will also explore methods of encouraging better participation at all levels in these program working groups.</p>	<p>The Joint Programs Steering Committee and its program sub-groups meet twice per year. This is an active group that is well-placed to ensure both institutions are collaboratively engaged in the program’s interests.</p> <p>In 2023 UTSC and CC engaged in a revision of the Memorandum of Understanding governing the Joint Programs, which is currently in review with the Office of the Vice-Provost, Academic Programs. It is expected that the MOU will be finalized in Fall 2023.</p> <p>The program’s transition to the Department of Health and Society is expected to benefit students and faculty and enable future collaborations.</p>



			<b>Timeline:</b> short / medium term	
	9	“Strengthening the connections and unity, and ‘esprit de corps’, between the two institutions is highly recommended.”	<p>Following the transition of the Paramedicine program to the Department of Health and Society, the program is now well positioned alongside our faculty’s leadership role in the paramedicine community, and an active program of research and large network of collaborators collectively working to advance the profession. Shared membership on advisory committees, on program planning, on community outreach, and shared support for the SAMIH initiative, are examples of a renewed sense of pride, fellowship and common loyalty. Both institutions commit to active engagement with one another on the above, or other initiatives that arise.</p> <p><b>Timeline:</b> monitoring only</p>	
	10	“Notwithstanding the very distinct cultures, processes, budget models, and governance between the two institutions, there is a need for a collaborative table and governance model that specifically addresses the joint program(s) in a more integrated and productive manner (for the future) than currently managed.”	See response to recommendation # 8.	
	11	“Better coordination and teamwork in enrollment in terms of numbers that the CC program can accommodate for the joint program.”	The Department of Health and Society and Centennial College are working collaboratively to understand and support changes in admission processes and requirements, and in addressing bottlenecks for student enrollment and completion of the program. Currently UTSC admits 35 students each Fall. Historically, the number of students enrolled was	The Dean’s office supports the Department in collaborating with Centennial colleagues who will be best placed to understand capacity in the program, particularly for student placements. We will work with the Registrar’s Office on potential admission tools that may be used to support



			<p>higher. The Ontario government has encouraged more enrollment in health professions programs. We are working with CC to explore what capacity might exist to increase enrollment numbers (this includes attending to those who require readmission). UTSC is also revising its admission criteria to better align with Centennial College (including the use of new admission tools), reflect the change to the Department of Health and Society and promote accessibility. These discussions will include the UTSC Registrar’s Office.</p> <p><b>Timeline:</b> short / medium term</p>	<p>enrolment growth while also ensuring students are prepared to succeed in the program.</p>
<p>Noting that the physical fitness requirements for provincial certification as a paramedic are responsible for significant program attrition, the reviewers recommended clearer communication with students regarding these requirements prior to their entering the program, and consideration of additional admission criteria to facilitate student success.</p>	<p>12</p>	<p>“Assuming the lift test continues to be required and an industry standard, efforts should be in place to properly inform, screen and prepare applicants before too much of their time, money, and efforts are invested in their training.</p> <p>Other requirements should also be made clear and assessed very early on including health status, immunization, criminal record check, driving record, mask fit testing, etc.”</p>	<p>Lifting, medical and other non-academic requirements are expected to continue. As such, and to limit these issues as barriers to student success, we will implement the following: include the non-academic requirements (a) in marketing / program information materials, (b) in declaration statements students must review and submit, (c) in planned orientations to support students in understanding these requirements, and (d) ensure students are aware of the related supports (e.g., mentoring, access to strength conditioning supports) available at CC and UTSC.</p> <p>Any additional admission screening will be considered in consultation between both institutions. Centennial College has received institutional approval and will be commencing Computer-based Assessment for Sampling Personal Characteristics (CASPER) with applicants to the Paramedic program, starting in Fall</p>	
	<p>13</p>	<p>“The physical fitness and health requirements for a registered health care professional in the province (e.g., lifting test, medicals, vaccinations, driving requirements, etc.) should be clear and achievable for each applicant before entry to the program. At the moment, it appears that students finishing first year may not be aware of these requirements or unable to meet them. Consideration should be given</p>		



		<p>to entry testing for these important admission requirements.”</p>	<p>2024. CASPER is intended to provide non-academic information (e.g., interpersonal skills, professionalism, ethical decision-making) that can be used to complement traditional academic indicators and provide a more comprehensive evaluation of an applicant’s suitability for the paramedicine program. To promote alignment, UTSC will review and consider the same process in admissions.</p> <p>It is worth noting that in the Fall 2022 cohort, lift test failures accounted for less than 4% of the cumulative semester 1 attrition, and less than 2% of the overall program enrollment.</p> <p><b>Timeline:</b> short / medium term</p>	
<p>The reviewers suggested a number of changes to the curriculum structure and sequencing to allow “more time for maturation of students prior to taking on the responsibility of a paramedic”; they also noted considerable challenges for students who are not able to complete program components on the expected timeline and recommended that more flexible pathways to program completion be considered.</p>	<p>14</p>	<p>“The site visit and our meeting with students would suggest that consideration should be given to revisiting where the UTSC component occurs in the program (currently years 1 and 4). Suggestion was made for this curriculum to be covered in years 1 and 2, providing more time for maturation of students prior to taking on the responsibility of a paramedic together with CC classes.”</p>	<p>This issue has been considered extensively in the past and again because of this review. We have decided that the program is best structured with the CC content provided in years 2 and 3, with the remaining content provided at UTSC in years 1 through 4. While other institutions have implemented 2+2 models, we believe the current model is best because it: (a) better promotes integration, consistency, cohesiveness, community and relationships by allowing students to transition back to UTSC (b) allows content to be sequenced and offered collaboratively, (c) permits a scaffolding of content not available in the 2+2, (d) permits access to the profession with a broader foundational knowledge base, (e) permits more flexibility in the fourth year at UTSC to promote</p>	<p>The Dean’s supports the program's choice to maintain the 1+2+1 model, given the proposed enhancements, including more careful consideration of curriculum scaffolding and the incorporation of new courses aimed at enhancing students' foundational knowledge and encouraging reflection of their applied learning experiences. The introduction of a research-oriented course also creates avenues for students to pursue advanced professional and graduate-level training should they express interest in doing so.</p>



			<p>completion of the degree, compared with the less flexible practical components in the final year at CC.</p> <p><b>Timeline:</b> monitoring</p>	
15	<p>“The potential for a re-focused UTSC year 1 &amp; 2 program could introduce a broader health-oriented foundation, which might increase the appropriateness of this component. Its effectiveness in preparing students for a career in the health system might also benefit. The refocused program might explore modules on health determinants, ‘early patient contact’, pharmacology, etc.”</p>		<p>The transition to DHS enables the introduction of themes such as broader health-oriented foundations, health systems, and more into the program. Our major program modification plans include, for example, the addition of HLTA02H3 Foundations in Health Studies, HLTB41H3 Introduction to Social Determinants of Health, HLTB40H3 Health Policy and Systems, HLTC81H3 Health Professions and Practice, HLTD01H3 Directed Readings in Health Studies and HLTD05H3 Directed Research on Health Services and Institutions. These courses integrate (C-level) and follow well (D-level) with existing Centennial courses, and will be well integrated with the existing 1-2-1 model. For example, HLTC81H3 positions paramedicine along with other health professions in the delivery of health care. HLTD05H3 allows students to study aspects of paramedicine after having some experience with the profession.</p> <p><b>Timeline:</b> short / medium term</p>	
16	<p>“Given recent challenges such as prolonged paramedic off-load delays, consideration should be given to competency-based goal achievement rather than simple completion of 400-450 hours on the road. Similarly, having access to various preceptors would increase scheduling flexibility and provide</p>		<p>While some of our partnering sites have transitioned from and agree to competency-based models, this is not yet broadly implemented. Both UTSC and CC are committed to transition from a time-based model to a competency-based approach. Centennial College does not include hour minimums or maximums. Rather completion or exit decisions are based on</p>	<p>The Dean’s Office will use governance opportunities through the Joint Programs Steering Committee and its program sub-groups to monitor this, as well as the Academic Programs Planning Sub-Group of the SAMIH steering committee.</p>



		<p>greater exposure to different teaching styles and approaches to paramedicine.”</p>	<p>determinations of readiness supported by preceptor input.</p> <p>Despite efforts, the placement structure continues to be a bottleneck in part because of the limitations imposed by placement sites (e.g., in access dates and hours). Both UTSC and CC are active in exploring innovations related to work-integrated learning with our Paramedic Service partners, but we continue to struggle with the transition. Recent government calls for greater support in this space are being leveraged and we are working with the Ontario Association of Paramedic Chiefs (operators / placement sites) to explore solutions, including access to various preceptors.</p> <p><b>Timeline:</b> long term</p>	
	<p>17</p>	<p>“Discussion with leadership on ‘closing the gap’ in the last year should be considered where a course could be created to tie together elements of learning from the three previous years and prepare the student for independent practice. Innovative assessment techniques could be considered for such a program. Similarly, competency-based success for clinical ride-outs could be considered rather than or as a complement to a set number of completed hours.”</p>	<p>Currently, we have planned to introduce in Fall 2024 a new D-level course year course titled “Advances in Paramedicine” which will support the student’s transition to the workforce and profession. While its emphasis is non-clinical, it includes linking of clinical knowledge to broader health systems, transitions and opportunities in paramedicine. Innovative assessment techniques are being considered including leveraging community and professional partners/stakeholders in the evaluation of student contributions.</p> <p>Secondly, we agree with the need to de-emphasize an hours-based program for a competency-based model. The program’s success criteria are competency based</p>	<p>The Dean’s office supports the Departments revisions to the curriculum and its continued work with placement pathways in this regard.</p>
	<p>18</p>	<p>“A fourth-year course that prepares students for transition to professional life could engage recent graduates to describe lived experience and act as mentors in this crucial part of the student’s professional journey.”</p>		



			<p>but placement site policies can and do provide some limitations (e.g., limited access to the scope of practice, limitations on dates and times allocated to students, limitations in accessing some types of patient events). Some innovations in this space have been and will continue to be explored with our placement partners.</p> <p><b>Timeline:</b> short / medium term</p>	
	19	<p>“Creation of alternative pathways where enrollment can include diploma to degree and degree to diploma pathways.”</p>	<p>We agree that academic pathways are needed for our students, and to be active in supporting paramedics/paramedicine more broadly. Our existing pathways currently prohibit graduates (paramedic diploma holders) from other institutions from accessing the degree. Even graduates of the CC diploma who do not have university level education, have difficulty accessing the degree. Discussions have taken place with the UTSC Registrar’s office in the past, and these discussions will be revived to create facilitated pathways for these students. Both CC and UTSC see this as an obligation to students and the profession overall.</p> <p><b>Timeline:</b> medium / long term</p>	<p>The Dean’s office supports and will help to facilitate conversations with the Registrar’s Office to explore and expand access pathways for students. The hiring of a dedicated Joint Programs, Program Coordinator at UTSC, in the short term, will play an important part in moving this forward.</p>
<p>Observing that a potential change in provincial requirements related to program length represents both a “pivotal moment in the history of the program” as well as an “opportunity to align the two programs in a way that reduces repetition and builds off</p>	20	<p>“Consideration and Planning for a 5-year program, and the potential impact of provincial requirements for a 3-year College program/degree.”</p>	<p>Currently, the province is considering different potential models for program delivery, including a 3-year credential. As such, UTSC and CC are exploring curriculum revisions and alignment. Both a 4- and 5-year degree model are being considered, however, we believe that the 4-year program would be optimal for integration of the curriculum. Further, competing</p>	





<p>each program’s strengths,” the reviewers recommended consideration and planning for a five-year Paramedicine curriculum.</p>			<p>programs are normally 4 years in length, so retaining the 4-year structure is preferred.</p> <p><b>Timeline:</b> monitoring only</p>	
	21	<p>“There is an important opportunity to consider integration of Primary Care Paramedic training with Advanced Care or Community Care training if a 3-year College Program were to become the provincial norm. This is particularly relevant given potential developments at SAMIH.”</p>	<p>As described above, a provincial shift to a 3-year curriculum is not immediately forthcoming but is being considered and explored by provincial stakeholders. However, we agree that supporting pathways for students into Advanced Care Paramedicine, Community Paramedicine and Master’s programs is needed and would align well with the Paramedicine Collaborative at the Department of Family and Community Medicine, trends in the industry, and the SAMIH initiative. Our plans are to offer students post-graduate opportunities as long-term plans.</p> <p><b>Timeline:</b> medium / long term</p>	<p>The Dean’s office supports the Department’s efforts to build strong relationships with the Master’s in Advanced Care Paramedicine, Community Medicine Paramedicine, in the Department of Family and Community medicine, and its long-term efforts to explore post-graduate opportunities.</p>
	22	<p>“Consideration should be given to increasing the proportion of college course credits considered to be university equivalent from the current maximum of 7.5. This will be especially important if the college program extends to three years.”</p>	<p>Consideration for increasing the availability of college course credits from 7.5 is being considered as part of the major program modification. Discussions between both institutions are planned prior to proposing any changes through governance.</p> <p><b>Timeline:</b> short / medium term</p>	<p>There is room for a slight increase in the number of courses from CC in the program. However, we do not expect this will be necessary in the current program structure. If the diploma program shifts to a 3-year program, we may consider increasing the total credits.</p>
<p>The reviewers made a number of recommendations geared toward increasing students’ opportunities for research engagement and their familiarity with the existing scope of paramedicine research; they suggested several ways in which</p>	23	<p>“A culture of research and intellectual curiosity must be pervasive, not only when taking research related courses, but also in clinical and operational training. The latter courses must be explicitly rooted in the primary research literature and students challenged to think of where the profession it is on solid footing, and where there is uncertainty.”</p>	<p>To address this issue, we have been considering the following in our major program modifications: (a) the introduction of a new D-level course titled “Advances in Paramedicine” which will have a focus on evidence; (b) the introduction of HLTD01 – Directed Readings in Health Studies, HLTD71 Directed Research in Health</p>	<p>The Dean’s office supports the inclusion of the stated D-level research-oriented courses and a commitment to evidence-based practice.</p>



<p>research competencies might be expanded, demonstrated, and assessed.</p>			<p>Studies, HLTD05 Directed Research on Health Services and Institutions.</p> <p><b>Timeline:</b> short term</p>	
	<p>24</p>	<p>“As part of a future joint research program described above, continue existing and formalize new opportunities for students to be involved in research in each year of study. This could include but not be limited to basic evidence-based literacy and key concepts in research, and involvement as a participant, data collector, and study lead. These opportunities should increasingly introduce and affirm basic to advanced topics describing the full breadth of research methods commonly employed to inform paramedicine, not only quantitative methods. Where possible paramedic specific contexts should be used, or bridges built between examples used in biology and how that may specifically be applied in the paramedic context. “</p>	<p>As described above, our planned major program modifications with the transition to DHS include several research and evidence literacy opportunities (see recommendation #23). UTSC also has established relationships with two key partners that can support new opportunities for students to be involved in research. First is the McNally Project. This is a paramedicine focused research capacity initiative that involves over 100 active paramedic researchers with several opportunities for research. Second, is the Paramedicine Collaborative at the Department of Family and Community Medicine. This collaborative focuses on paramedicine related research, innovation, scholarship and education. The combination of new courses along with these integrated relationships are expected to create opportunities for growth in research capacity. We will begin to explore these opportunities jointly with CC.</p> <p><b>Timeline:</b> short term</p>	<p>The Dean’s office will actively support the Department’s dedication to evidence-based practice and expanding research training and opportunities for students. Furthermore, the relocation of the Joint Paramedicine program to the research-intensive Department of Health and Society, with its close links to SAMIH, positions it favourably for potential collaboration in future health research programs.</p>
	<p>25</p>	<p>“Create a culture of research, where it is not considered an option for students, but rather an essential skill. Similar to clinical procedures like airway management, these skills could be formally assessed such as the ability to formulate and execute a literature search, proficiency in evidence-based literacy, practice at consenting/assenting patients to</p>	<p>Fostering a valuing for research and evidence (i.e., knowledge production, transition and use) as well as research capacity growth is a focus of the major program modifications. See response to recommendation # 21, 23 and 24 for how we intend to achieve these goals following the result of the</p>	



		a study, etc. They should be explicitly tied to program learning objectives.”	curriculum modifications and program mapping exercises.  <b>Timeline:</b> short term	
	26	“Ensure that clinical and operational teaching is explicitly rooted in the primary research literature, where studies supporting or not supporting clinical and operational interventions are discussed as they are being taught.”	The leveraging of evidence and engagement with the literature is included in all courses that are planned in the revised curriculum for the program. We have also included research specific courses throughout. For example, HLTB51 to Health Research Methodology (year 1), HLTD01 – Directed Readings in Health Studies (year 3), HLTD71 Directed Research in Health Studies, HLTD05 Directed Research on Health Services and Institutions (year 4).  <b>Timeline:</b> medium / long term	
The reviewers commented that “there exists tremendous potential to have a world-class research program that drives the development of paramedicine,” and recommended a coordinated research strategy between the two institutions to co-develop paramedicine-relevant research initiatives as informed by current challenges, issues, and opportunities in the field.	27	“We conclude that there is research occurring, but that a coordinated research strategy does not exist between the two programs. We believe there exists tremendous potential to have a world-class research program that drives the development of paramedicine, improves the delivery of paramedic training and assessment of competence, and provides opportunities for paramedic student education in research and evidence literacy.”	A collaborative program of research and research strategy exists between CC and UTSC. Our faculty, and faculty of our Paramedicine Collaborative (described above) are active researchers in paramedicine and health professions education research. Our plan is to work collaboratively between both institutions and with partner organizations and stakeholders to identify research priorities. Our program has recently received Canadian Institute of Health Research funding to support this work, specifically by leveraging the practice-oriented focus of CC along with the complementary policy, population and public health strengths of UTSC.  <b>Timeline:</b> long term	SAMIH provides a platform with the capability to align with this vision, creating avenues for the Paramedicine program to establish collaborations within the allied health professions. This, in turn, extends the possibilities for affiliated UTSC faculty accessing Tri-Council funding opportunities.
	28	“Create future collaborative research initiatives that capitalizes on the existing strength of UTSC faculty funding success, especially tri-council grants, and CC faculty’s focus on priority gaps in knowledge in paramedicine. The intent it is for UTSC and CC to co-develop paramedicine-relevant research initiatives as informed by challenges, issues and opportunities		



		related to the profession and delivery of health care by paramedics. An example of how this could come about would be the establishment of a “living laboratory” where education (and other high fidelity simulation based research) data collection could occur at CC in the course of students being trained.”		
29	“Explicitly support with protected time and resources those members of either UTSC or CC that are engaged in paramedicine research to develop a culture of research through a collaborative future research program. This program should begin the process of creating a research focused Masters level program in paramedicine that is jointly offered by UTSC and CC.”	The Dalla Lana School of Public Health (DLSPH) has recently launched a Paramedicine Collaborative at the Department of Family and Community Medicine that includes a focus on research, innovation, scholarship and education. Early development includes opportunities for paramedicine focused graduate / Master’s level courses (including supervision of paramedicine related research) creating opportunities to be involved in future expansions, with the potential of a Master’s level program. We believe this is important in supporting student pathways and the profession overall.  <b>Timeline:</b> short term (Master’s level program as longer term)	The Dean’s office supports the Department’s efforts to enrich the undergraduate curriculum of the Joint Paramedicine program to better align with the requirements of graduate level training and allow our students to be more competitive in gaining entry to these programs, including the new Masters at DLSPH.	
30	“There needs to be more regard for CC’s leadership in building and sustaining relationships and the leverage this has for establishing a global perspective, particularly with regards to research.”	Centennial College is indeed very active in building and supporting relationships and networks that support student development and opportunities, and program enhancements. In particular, Centennial is recognized for its work on interprofessional practice. We note the “Collaborating Across Borders” ( <a href="https://issuu.com/cache_uoftuhn/docs/cache_magazine_vol4_summer2023_final_hyperlinked">https://issuu.com/cache_uoftuhn/docs/cache_magazine_vol4_summer2023_final_hyperlinked</a> ) and the school’s recent “Scholarly Activity Report” ( <a href="https://centennialcollege.widen.net/s/gszmbw9hp8/s">https://centennialcollege.widen.net/s/gszmbw9hp8/s</a> )	UTSC recognizes the expertise and leadership of Centennial colleagues in building relationships that support the Joint program and the Paramedicine diploma programs at Centennial. The Dean’s office will work with the program on monitoring curriculum opportunities for the program that will align with Centennial’s academic strengths.	



			<p><a href="#">chs-scholarly-activity-report-2018-2021</a>) as examples. Moving forward, our intention is to align our academic strengths and leverage them in courses, activities, research, and opportunities for faculty and students.</p> <p><b>Timeline:</b> monitoring</p>	
	31	“Development of graduate studies where those with degrees can continue their studies in paramedicine.”	See response to recommendation # 29.	<p>The Dean’s Office is keenly interested in pursuing graduate opportunities in Paramedicine.</p> <p><b>Timeline:</b> monitoring</p>
Noting “considerable change and shift in scope of work of a paramedic, not only as a first responder, but a critical component of community-based health care,” the reviewers observed that healthcare-oriented units at UTSC (e.g., the Department of Health and Society and/or the Scarborough Academy of Medicine and Integrated Health) may be a more suitable home for the program in the future; they highlighted the opportunities for interprofessional training and experiential learning that these units could provide.	32	“It is highly recommended moving the (UTSC) program from the Department of Biological Sciences to the Department of Health and Society. There should be flexibility for students to take appropriate Biological Sciences courses as electives. There appears to be a better match where paramedicine is headed, and would likely reduce duplication of courses that currently occurs.”	<p>The transition of the program to the Department of Health and Society is complete as of July 1, 2023. A major program revision is currently being prepared for submission in Fall 2023, for a September 2025 intake. Students will continue to be able to access courses in Biological Sciences in the meantime and as part of electives in the program modification.</p> <p><b>Timeline:</b> short term</p>	The move to DHS has been successful and is already showing benefits for the program including the planned curriculum modifications mentioned above.
	33	“With the establishment of the Scarborough Academy of Medicine and Integrated Health (SAMIH) it is recommended that the Program in Paramedicine be brought under the umbrella of SAMIH.”	<p>DHS agrees with this recommendation.</p> <p><b>Timeline:</b> completed</p>	On September 14, 2023, the SAMIH Steering Committee, upon application by the UTSC Dean, formally included the Paramedicine program in SAMIH.
	34	“The relatively recent move of a paramedic faculty who has been very active in the production of scholarly work related to the advancement of paramedicine to UTSC in Health and Society, with a focus on health professions and practice, could be leveraged more fully. It would seem that the Department of Health and Society could be more	See response to recommendation # 7 and 32.	See responses as above.



		involved with the Department of Biological Sciences, and may in itself be a more natural home, in an integrated undergraduate degree in paramedicine. “		
	35	“UTSC and CC should begin discussions with the Temerty Faculty of Medicine in the planning of SAMIH and the potential for integration of the paramedicine program and/or for interprofessional training.”	See # 33.  <b>Timeline:</b> completed	See # 33. Effective September 14, 2023, DHS faculty serving as academic lead for the Joint Paramedicine program have been made formal members of the SAMIH Academic Programs Planning Sub-Group Alongside representatives of Temerty and other allied health professionals.
	36	“The opportunity for leveraging the SAMIH program should continue to be a priority as it could potentially improve the program and drive innovation in paramedicine.”	Our faculty have led the Paramedic Chiefs of Canada visioning report titled “Principles to Guide the Future of Paramedicine In Canada”. This work is influencing content at CC and UTSC. It is also guiding a program of research.	
The reviewers recommended that UTSC and Centennial College “create or continue with inter- and intra-institution team meetings to discuss the future of the joint program and potential options for evolving and addressing the future of a paramedicine education, training and research, and interprofessional practice in health care delivery in the community.”	37	“Create or continue with inter- and intra-institution team meetings to discuss the future of the joint program and potential options for evolving and addressing the future of a paramedicine education, training and research, and interprofessional practice in health care delivery in the community.”	<b>Timeline:</b> monitoring only  These initiatives described above are expected to shape the future of paramedicine in Canada.	
	38	“Re-imagining the program as a more fully integrated program in Paramedicine positioned to drive the future of paramedicine in Canada.”		
	39	“We recommend that emphasis be placed on developing the joint program as an endeavour that will strengthen prospective paramedic careers by driving the development of this nascent profession, rather than providing options for paramedics when they leave the profession.”	The program’s transition to DHS, the planned major program modifications, Paramedic Collaborative initiative, and the ongoing success and advancement of the CC portion of the program are intended to support a much deeper appreciation for an integration of students into the profession and the larger healthcare system. A focus on policy, science, population and public health and paramedic practice, is intended to create both breadth and depth	The Dean’s office anticipates that the implementation of recommendations noted above, in particular, the new alignment of the program with DHS priorities such as policy, public health and paramedic practice, will benefit students in this regard, and better align the program with expectations of the profession.



			opportunities for students that can then lead to deeper engagement and opportunities to contribute.  <b>Timeline:</b> short / medium term	
Other recommendations not prioritized in the Request for Administrative Response	40	“It is important to note that the visiting team had no opportunity to visit clinical sites / paramedic services in which students undertake their clinical training and we therefore cannot comment on those components of the curriculum. This area is an important one for future reviews to examine.”	Placements in clinical (i.e., hospital) and work integrated sites (i.e., paramedic services) are a vital component of the program. Availability of these resources continues to be the challenge. This has been exacerbated by the student intake expansion as directed by the Ministry of Health (MOH) and Ministry of Colleges and Universities. The MOH has promised to work with our Paramedic/Clinical Community partners, so that the appropriate amount of placement opportunities can be secured.	
	41	“An important issue restricting numbers of places available at CC is the requirement for competence-based modules that must comply with provincially mandated staff/student ratios. Similarly, clinical placements and ambulance service attachments are significant issues influencing student numbers. This is an issue affecting many equivalent programs at international level and requires both additional academic resources and effective partnerships with clinical sites and services.”	Performing site visits to clinical and/or field placement sites would be at the discretion of the host placement agency, and subject to operational and personnel restrictions. However, coordinating these site visits is something that will be explored with our partner agencies during the next review.  See also response to recommendation #16.  <b>Timeline:</b> long term See response to recommendation # 16.	
	42	“It is possible for CC graduates to apply for completion of the UTSC program, but not from other Colleges. Similarly, there is no apparent port of entry for students with a BSc or other degree into CC, and no apparent entry for out-of-province or	As described in the response to recommendation #19, both CC and UTSC see this as an obligation to students and the profession overall. The program at UTSC is open to-out-of province students; however, the same is not currently true for international students	This will be reviewed on an ongoing basis, in coordination with the program sub-group of the Joint Programs Steering committee, noting that residency





		international students. This is an important consideration if one was to aspire to build upon its national and international scope and leadership.”	generally because the program is only available to Canadian Citizens, Permanent Residents, and protected persons (convention refugees). At CC, an ongoing challenge with offering program seats to international students is the highly over-subscribed enrollment. For this reason, domestic students are prioritized ahead of international applicants. Furthermore, there exist additional obstacles for international students regarding work visas and placements, as well as employment upon graduation for non-residents. The program, within the current legislative constraints and program design, is designed to facilitate employment as a Paramedic in Ontario; therefore, non-residents have limited transferability of qualifications.  <b>Timeline:</b> medium term	requirements and transferability of qualifications will need to be monitored.
	43	“While a potential increase of international students might offer additional or new revenue generation, there may be opportunities for increased resources to be explored through advancement/philanthropy/fundraising. “	Our program is interested in supporting students and communities of under-represented and marginalized communities to access our degree program, and to further support research programs and research opportunities for students. Further, other strategies being considered include reserving spaces for marginalized groups, promoting accessibility with admission criteria reform/revisions, etc. However, we also note that our student population is diverse and represents the diversity of our community.  <b>Timeline:</b> long term	The Department has stated an interest in exploring fundraising opportunities with the University and Centennial College to support these initiatives to support under-represented and marginalized communities. The Dean’s Office will engage with the UTSC Development and Alumni Relations Office to explore such fundraising opportunities.
	44	“philanthropic and other fundraising could be leveraged, and with greater collaboration between the two institutions in areas of advancement.”		
	45	“Encourage the recruitment of tenure and teaching track professors who specialize in paramedicine.	DHS recently hired Dr. Walter Tavares as a tenure track professor. Walter has a long history in	The Dean’s office will work with the Department to explore strategies that may





		<p>Consider Adjunct positions or cross appointments between UTSC and CC that can complement teaching or act as mentors for research specific to paramedicine.”</p>	<p>paramedicine and CC, and an active program of research focused on the advancement paramedicine. In his role as Director of the Paramedicine Collaborative at U of T, he has also been able to secure faculty status only appointments for other paramedicine faculty, and is active in securing other faculty for our program.</p>	<p>facilitate cross appointments with CC, including the possibility of Adjunct status-only positions.</p>
	<p>46</p>	<p>“Paramedic preceptors should be evaluated and this fed back to the joint program’s administration for quality assurance.”</p>	<p>This has historically been a challenge because of the one-to-one student-to-preceptor model that exists in paramedicine, because of limited paramedic preceptors and in some cases limited access to preceptors for this type of activity. However, Dr. Walter Tavares has been involved in the “Learner Assessment of Clinical Teaching” in the Post-Graduate Medical Education program in the Temerty Faculty of Medicine, which may provide new opportunities. A paramedic preceptor evaluation strategy will be developed with CC as part of our continuous quality assurance program.</p> <p><b>Timeline:</b> medium /long term</p>	<p>The Dean’s office supports the Department’s efforts to work with CC to develop the paramedic preceptor evaluation strategy as part of a continuous quality assurance program.</p>

### 3 Committee on Academic Policy & Programs (AP&P) Findings

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The spokesperson for the reading group reported that the review summary accurately described the full review and that overall the Dean's administrative response had mostly addressed issues identified by the review, and noted that steps were already in progress to address concerns. Most notably, the move of the program from the UTSC Department of Biological Sciences to the Department of Health and Society took a large step to address the concerns surrounding the alignment of the coursework and training offered at UTSC with that of Centennial College. The reading group asked the Unit to further comment on the needed departmental support from the Dean's office to secure access to clinical placements and ambulance service attachments, fundraising initiatives, as well as supporting under-represented and marginalized communities.

Bill Gough, Vice-Principal Academic & Dean responded that:

- The joint program with Centennial was unique in Canada in terms of how Paramedicine was delivered and being the only degree program. He acknowledged that the Chair of the Department of Health and Society returned from leave on July 1, 2023 to a new program in her department. He reported that a new hire was a former Centennial faculty, and an expert in Paramedicine, further grounding the program with relevant expertise and tailored program offerings to better suit the needs of the students.
- Clinical placements were entirely supported by Centennial.
- Centennial College was in dialogue with the province to expand Paramedicine, as it was an opportune area of growth, particularly in rural Ontario.
- This was not a deregulated program, thus students paid regular fees, including Centennial fees during their two years at the College.
- There was a high number of OSAP students at UTSC and the program reviewed the financial requirements of students based on need. He noted that a potential barrier for some groups could be the need for licensure, but this was not required for the program.

In response to a member's question about the metrics of success by changing departments that included research, and connections to the Scarborough Academy of Medicine and Integrated Health (SAMIH), Bill Gough commented that the Department of Health and Society was the one academic department at UTSC that would physically move into the SAMIH building, that Paramedicine was a SAMIH partner, and would serve on the academic working groups. Regarding research, he noted that faculty in Paramedicine were collaborating with researchers in DLSPH and other divisions, and were exploring the development of a master's program.

Considering the significant changes between the review and current timeline, a one-year follow-up was requested to check in on the program's adjustment to its new administrative home at UTSC.

## 4 Institutional Executive Summary

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The reviewers praised Paramedicine as one of few such programs in Canada, noting that it is the only program in Ontario offered through a partnership between a college and a university; they highlighted the annual simulated disaster exercise as “reflective of the commitment to partnerships and collaborations that are key to the success of the program.” They noted the diverse student body, inclusive environment, and students’ pride in and engagement with the program as particular strengths. They applauded the quality of the program’s graduates, noting high success rates on the Advanced Emergency Medical Care Assistant exams and a near 100% employment rate immediately following graduation. Finally, they commended the program’s leadership team, faculty, and staff at both UTSC and Centennial College, noting the strong morale, collegial relationships, and the high level of commitment from all involved to the program and its students.

The reviewers recommended that the following issues be addressed: developing a more integrated and cohesive approach to the jointly-offered program including greater alignment of program goals, reduction of overlaps and conflicts between courses and other curriculum components, a more seamless student experience, and a collaborative governance model for program planning and oversight; providing clearer communication with students regarding physical fitness requirements for provincial certification prior to their entering the program, and considering additional admission criteria to facilitate student success; considering a number of changes to the curriculum structure and sequencing, including more flexible pathways to program completion; consideration and planning for a five-year Paramedicine curriculum in response to potential changes in provincial requirements related to program length; increasing students’ opportunities for research engagement and expanding research competencies; developing a coordinated research strategy between the UTSC and Centennial College; considering whether healthcare-oriented units at UTSC (e.g., the Department of Health and Society and/or the Scarborough Academy of Medicine and Integrated Health) may be a more suitable home for the program in the future; and creating or continuing inter- and intra-institution team meetings to discuss the future of the joint program and potential options for evolving and addressing the future of a paramedicine education.

The Dean’s Administrative Response describes the Faculty and programs’ responses to the reviewers’ recommendations, including an implementation plan for any changes necessary as a result.

## 5 Monitoring and Date of Next Review

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As of July 1, 2023, the Specialist (Joint) in Paramedicine is administered at UTSC by the Department of Health and Society. The Dean’s Office will monitor the implementation of recommendations through ongoing meetings with the Chair of the Department of Health and Society and regular meetings with the Joint Programs Steering Committee (UTSC/CC).

An interim report to the Office of the Vice-Provost, Academic Programs will be prepared in the Fall of 2026.

The next external review of the Department will take place no later than Fall of 2029, together with the external reviews of the Department of Health and Society and its programs.

## **6 Distribution**

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On June 30<sup>th</sup> 2024, the Final Assessment Report and Implementation Plan was posted to the Vice-Provost, Academic Programs website and the link provided by email to the Vice-Principal Academic & Dean of University of Toronto Scarborough, the Secretaries of AP&P, Academic Board and Governing Council, and the Ontario Universities Council on Quality Assurance. The Dean provided the link to unit/program leadership.