



FOR INFORMATION

PUBLIC

OPEN SESSION

TO: UTSC Academic Affairs Committee

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DATE: September 4, 2025 for September 11, 2025

AGENDA ITEM: 4

ITEM IDENTIFICATION:

Review of Academic Programs and Units, UTSC: Specialist in Paramedicine (offered jointly with Centennial College)

JURISDICTIONAL INFORMATION:

Under section 5.7 of the Terms of Reference of the University of Toronto Scarborough Academic Affairs Committee (UTSC AAC) provides that the Committee “shall receive for information and discussion reviews of academic programs and/or units consistent with the protocol outlined in the *University of Toronto Quality Assurance Process*. The reviews are forwarded to the Committee on Academic Policy and Programs for consideration.”

GOVERNANCE PATH:

1. **UTSC Academic Affairs Committee [For Information] (September 11, 2025)**

PREVIOUS ACTION TAKEN:

- Committee on Academic Policy and Programs (AP&P), October 24, 2023 [For Information]. The Committee was satisfied with the Dean’s Administrative Response. A 1-year follow-up report was requested to be submitted in Fall 2024.
- Academic Board, November 16, 2023 [For Information]. The Board was satisfied with the Report from AP&P.
- Committee on Academic Policy and Programs (AP&P), October 22, 2024 [For Information]. The Committee was satisfied with the 1-year follow-up report. No further follow-up reports were requested.

- Academic Board, November 14, 2024 [For Information]. The Board was satisfied with the Report from AP&P.

HIGHLIGHTS:

The *Cyclical Program Review Protocol* “is used to ensure University of Toronto programs meet the highest standards of academic excellence” (UTQAP, Section 6.1). The *Protocol* applies to all undergraduate and graduate degree programs offered by the University, and the University’s full complement of undergraduate and graduate degree and diploma programs are reviewed on a planned cycle. Reviews are conducted on a regular basis, and the interval between program reviews must not exceed eight (8) years.

- The external review of academic programs requires:
- The establishment of a terms of reference;
- The selection of a review team;
- The preparation of a self study;
- A site visit;
- Receipt of a report from the external review team;
- The Vice-Provost, Academic Programs’ formal request for an Administrative Response;
- The formal Administrative Response, combining responses from the Dean and Vice-Principal Academic, as well as from the Chairs/Directors of the relevant programs and/or units; and
- The Final Assessment Report and Implementation Plan.

In accordance with the *Protocol*, an external review of the Specialist in Paramedicine, a joint program with Centennial College previously administered by the Department of Biological Sciences, was commissioned for the 2021-22 academic year. Due to exceptional circumstances impacting staffing, the review was deferred to 2022-23. During the site visit held on November 2-3, 2022, the review team met with a broad range of stakeholders, including senior academic administrators from UTSC and Centennial College, Department Chairs, faculty and staff from both institutions, and students in the program.

The reviewers highlighted the annual simulated disaster exercise as a signature initiative, describing it as “reflective of the commitment to partnerships and collaborations that are key to the success of the program.” They also acknowledged the program’s strong outcomes, including high success rates on the Advanced Emergency Medical Care Assistant exams and near 100% employment immediately following graduation.

In their report, the reviewers recommended:

- Establishing a more integrated and cohesive program structure to improve the student experience and reduce course overlaps and conflicts
- Providing clearer communication about physical fitness requirements for provincial certification prior to program entry, and considering additional admission criteria to support student success
- Revising curriculum structure and sequencing to offer more flexible pathways to completion

UTSC Academic Affairs Committee – Review of Academic Programs and Units, UTSC: Specialist in Paramedicine (offered jointly with Centennial College)

- Increasing students' opportunities for research engagement and expanding research competencies
- Evaluating whether health sciences-oriented units such as the Department of Health and Society at UTSC may be a more suitable administrative home for the program
- Introducing or continuing inter- and intra-institutional team meetings to explore the future of paramedicine education and the evolution of the joint program

Effective July 1, 2023, the Specialist (Joint) in Paramedicine was administratively transferred from the Department of Biological Sciences to the Department of Health and Society. In response to the recommendations, program leadership in the Department of Health and Society, in collaboration with colleagues at Centennial College, will:

- Coordinate curriculum review and major program modifications to avoid duplication across the two institutions
- Collaboratively work on mapping the processes and workflows experienced by students from enrolment to graduation to identify bottlenecks and areas for improvement
- Explore convening formal program working groups more frequently to discuss issues such as support for graduates in the field and increasing research capacity
- Communicate lifting, medical and other non-academic requirements through marketing materials, declaration statements, and orientation sessions
- Consider using Computer-based Assessment for Sampling Personal Characteristics (CASPER) to allow for a more comprehensive evaluation of applicants' suitability to the program
- Revive discussions on creating facilitated pathways for students and paramedic diploma holders
- Explore new courses and partnerships to expand research capacity

Additionally, the Dean and the Dean's Office will:

- Monitor diploma program expectations as directed by the Ontario Ministry of Colleges and Universities in coordination with the Joint Programs Steering Committee
- Collaborate with the Registrar's Office on admission tools to support enrolment growth while also ensuring students are prepared to succeed in the program
- Support the Department of Health and Society's dedication to evidence-based practice and expanding research training
- Engage with the Development and Alumni Relations Office to explore fundraising opportunities for underrepresented and marginalized communities
- Collaborate with the Department of Health and Society to explore strategies for more effectively connecting faculty with relevant expertise at Centennial and UTSC to the program

Following the Committee on Academic Policy and Programs' request for a one-year follow-up report on the program's transition to its new administrative home in the Department of Health and Society, the following developments have occurred:

- In December 2023, UTSC ratified a new Memorandum of Understanding with Centennial College, outlining governance and academic leadership for joint programs

- A new 0.5 FTE Program Coordinator was hired in the Department of Health and Society in 2024 to work closely with Professor Walter Tavares, the newly appointed UTSC faculty lead
- UTSC and Centennial College have started jointly reviewing Supplementary Application Forms (SAF) and the admissions process
- A major modification proposal has been in development to improve student transition and address readiness and workload concerns, drawing also on conversations about upcoming ministry changes affecting paramedicine credentials
- A new course, *Paramedicine as a Community-Based Health and Social Service* (HLTB80H3), offered by the Department of Health and Society, was approved in 2024-25 to equip students with foundational knowledge, critical thinking skills, and sociological insights needed to navigate the rapidly evolving healthcare landscape

Given the rapidly evolving regulatory context surrounding the Paramedicine curriculum in Ontario, the Dean's Office will continue to monitor the implementation of recommendations through regular meetings with the Chair of the Department of Health and Society and the Joint Programs Steering Committee (UTSC/Centennial College). A brief report will be submitted to the Office of the Vice-Provost, Academic Programs midway between the November 2022 site visit and the next scheduled review. The next external review of the program is scheduled for no later than Fall 2029.

FINANCIAL IMPLICATIONS:

There are no net financial implications to the campus' operating budget.

RECOMMENDATION:

This item is presented for information only.

DOCUMENTATION PROVIDED:

1. Review Report (January 19, 2023)
2. Provostial Request for Administrative Response (June 29, 2023)
3. Administrative Response (September 26, 2023)
4. Provostial Request for Follow-up Report (November 13, 2023)
5. Provostial Final Assessment Report and Implemental Plan (May 17, 2024)
6. Follow-up Report (September 19, 2024)

Cyclical Review: Report

<p>As Commissioning Officer, I confirm that:</p> <ul style="list-style-type: none"> ✓ The review report addresses all elements of the terms of reference, which reflect the requirements outlined in the University of Toronto Quality Assurance Process (UTQAP), including the program evaluation criteria ✓ I have brought to the attention of the reviewers any clear factual errors in the report and the reviewers have corrected these. 	
<p>Commissioning Officers*:</p> <p>Centennial College: Dr. Glen Lowry, Associate Vice President, Applied Research, Hyflex Learning and Academic Partnerships</p> <p>University of Toronto Scarborough: Professor William A. Gough, Vice-Principal Academic & Dean</p>	<p>Report Accepted as Final on</p> <p>[Jan 12, 2023]</p> <p>[Jan 19, 2023]</p>

<p>Reviewers are asked to provide an Appraisal Report that:</p> <ul style="list-style-type: none"> • Identifies and commends the program’s notably strong and creative attributes; • Describes the program’s respective strengths, areas for improvement and opportunities for enhancement; • Recommends specific steps to be taken to improve the program, distinguishing between those the program can itself take and those that require external action; • Recognizes the institution’s autonomy to determine priorities for funding, space and faculty allocation; • Respects the confidentiality required for all aspects of the review process; and • Addresses all elements of the terms of reference, which reflect the requirements outlined in the <i>University of Toronto Quality Assurance Process (UTQAP)</i>, including the program evaluation criteria.
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Program under review:	Joint Specialist in Paramedicine
Division/unit/school in which program(s) is housed:	Centennial College: School of Community and Health Sciences UTSC: Biological Sciences
Commissioning officers:	Centennial College: Dr. Glen Lowry, Associate Vice President, Applied Research, Hyflex Learning and Academic Partnerships UTSC: Professor William Gough, Vice-Principal Academic and Dean
Date of scheduled review:	November 2-3, 2022

Reviewers' names and affiliations:	<ul style="list-style-type: none">• Professor Christian Vaillancourt, Department of Emergency Medicine, University of Ottawa• Professor Gerard Bury, University College Dublin, School of Medicine, Health Sciences Centre• Professor Steven Liss, Faculty of Science, Toronto Metropolitan University• Professor Ian Blanchard, EMS Health Systems, Alberta Health Services• Caroline Minks, Student Reviewer
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1 Review Summary

This joint program is described as the first of its kind in Canada (since 2003), and currently the only one in Ontario. Centennial College (CC) first offered a one-year Emergency Care Assistant certificate program in 1975, and a two-year diploma Paramedic Program was launched in 1999. Admission criteria into the University of Toronto Scarborough Campus (UTSC)/CC Specialist Joint Program in Paramedicine include successful completion of grade 12 courses including Advanced Functions, Biology, Chemistry and English. Recently admitted candidates had a low 80 average (lower than those admitted into the stand-alone Centennial College two-year program). The joint program is housed within the Department of Biological Sciences, UTSC. Successful students graduate with a Paramedic Diploma in paramedicine (CC), and an Honours BSc Degree in Biology (UTSC). Students who have completed the requirements for the Paramedic Diploma (CC) are eligible to take the Ministry of Health exams to qualify as a Primary Care Paramedic.

The first year of the program entails taking courses at UTSC. The time spent in years two and three is mostly at CC together with a few additional UTSC courses. In the last year of the program, students are back primarily attending UTSC courses. The degree consists of 20 University credits, 7.5 of which (max) are credited for CC courses. The program welcomes 35-40 students per year, the majority directly from high school (unlike the free-standing CC program which has many graduate entrants). Alternatively, CC paramedic graduates (specifically) can apply to UTSC in consideration for completion of the joint BSc degree. A bridging program allowing paramedic graduates from other Colleges to enter the program is no longer available. Similarly, transfer into this program from another University degree is likely not feasible. This is in great part because students failing a class will often need to wait an entire year to repeat that class and join the following year cohort (especially if it was a pre-requisite) before being able to progress into the joint program.

While the UTSC/CC Joint Program has much to offer and to be proud of, the external evaluators identified the following major points that may contribute to ongoing success and leadership.

A. Expected Requirement for a 3-year College Degree in Paramedicine

With the constantly expanding scope of paramedicine comes the need to expand the existing curriculum from a 2-year to a 3-year program. This almost came to fruition under the Ministry of Health's guidance, but paused during COVID-19, and perceived nonetheless by many as being inevitable in the near future.

Internationally, the move towards university-based paramedic education is consistent and is driven by the increasing recognition of the professional responsibilities, complex workload and demanding work environment of the paramedic and the need to address curricular overload and integration to the professional healthcare setting from the beginning of a career. It is also clear that the research potential of the profession is best developed by early integration to the university setting. In many countries, three- or four-year degree programs are the foundations for employment / starting a career in the discipline.

The consequences are numerous, especially considering the need for some Universities to only allow a certain percentage of recognized credits from College courses in order to recognize the University degree. This could result in a 5-year joint program instead, which may be too onerous by students. This also would open the door to the possibility of a 3-year College baccalaureate.

B. Mandatory Lift Test and Other Requirements

Despite available lift-assist devices, paramedic candidates are still expected to successfully lift a 114 kg (250 lb) load to successfully pass their provincial certification. Preparation for this effort includes the need to demonstrate successive ability to lift a progressively heavier charge during training (e.g., 170 lbs – 180 lbs – 190 lbs – 220 lbs). Failure to meet this requirement, as communicated to the review panel during the review, is **responsible for a 25% attrition from the program**. 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.

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.

C. Seamless Integration of Both Joint Programs

We cannot give too much importance to the need for seamless integration between the UTSC and CC programs (and joint support staff). Failure to do so can lead to:

1. Dissatisfaction of both students and faculty.
2. Duplication of efforts and student resources.

3. Non-continuous student performance assessment and registration challenges.
4. Overlap/conflicts between university and college courses, labs, ride outs, etc.
5. Diminished mutual appreciation and respect.

Duplication of courses should also be avoided, and consideration given (especially with the expected expansion to a 3-year college program) to providing 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.

Both institutions are very proud of their respective contributions to the program and there is no doubt of support across the leadership for the program and students at UTSC and CC. There is nonetheless a sense of two solitudes that presents challenges and limits how they can advance both a future learning environment, experiential training, and research that reflect changes unfolding in paramedicine and health care delivery in communities. Basically, CC delivers all of the elements of the program required to work as a paramedic (primary care) presently. The Honours degree in Biology primarily serves as a university degree that prepares graduates for pathways to leadership opportunities and other career pathways in health care, or for when active paramedics leave the field.

Key recommendations include:

- Re-imagining the program as a more fully integrated program in Paramedicine positioned to drive the future of paramedicine in Canada.
- 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.
- 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.
- Consideration and Planning for a 5-year program, and the potential impact of provincial requirements for a 3-year College program/degree.
- There appear to be many ways in which students can fail or experience challenges that could be ameliorated with consideration to addressing particular admission requirements (manual handling / lifting, etc.) in terms of timing, support and information. 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.

2 Program Evaluation Criteria

Objectives

Consistency of the program with the University's mission and Faculty/unit's academic plans

Paramedicine is the “destination” and should not be considered merely as a conduit leading to another health care field. The site visit left a strong 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.

Centennial does not currently offer training for Advanced Care Paramedics, Community Paramedics or other paramedic disciplines. 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.

Program requirements and learning outcomes are clear, appropriate and align with the relevant undergraduate and/or graduate degree level expectations.

While requirements and learning outcomes for the CC components are clear and focused, it is less clear that the UTSC modules align with the goals of the degree and the evolution of paramedicine. The modules themselves are well designed and taught but a re-alignment to available within UTSC (e.g., Health and Society) / SAMIH modules might be a better fit for the degree.

Admission requirements

Appropriateness of admission requirements for the learning outcomes established for completion of the program.

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 to entry testing for these important admission requirements.

Curriculum and program delivery

Curriculum reflects the current state of the discipline or area of study and is appropriate for the level of the program;

Is the Department of Biological Sciences the best home for the program at UTSC? While the Department has provided an excellent foundation for the program healthcare-oriented units may offer a better fit in the future (perhaps best aligned with the Department of Health and Society and SAMIH). Recognizing that more skills and competencies are being demanded from the Ministry of Health, and that the curriculum is currently full (or more than full according to Centennial instructors and students), can there be a leveraging of UTSC program offerings to better complement the courses required by the Ministry and delivered via Centennial?

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.

Appropriateness and effectiveness of the program's structure, curriculum, length and mode(s) of delivery to its learning outcomes and degree level expectations -clarity with which these have been communicated

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.

The potential for a re-focused UTSC year 1 & 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 re-focused program might explore modules on health determinants, 'early patient contact', pharmacology, etc.

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 greater exposure to different teaching styles and approaches to paramedicine.

Evidence of innovation or creativity in the content and/or delivery of the program relative to other such programs;

The UTSC/CC program is one of a few such programs in the country, and the only program in Ontario that has a partnership between a college and university leveraging, in theory, the best of both institutions. CC has an excellent simulation environment, which is also staffed by experienced paramedics still clinically active in the field. There is a deserved sense of pride in the elaborate disaster exercise involving multidisciplinary collaborative efforts, and, one of the few opportunities in interprofessional practice in preparing for working in the field. There is a great opportunity to build on this throughout the program. 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 involved with the Department of Biological Sciences, and may in itself be a more natural home, in an integrated undergraduate degree in paramedicine.

Opportunities for student learning beyond the classroom;

At UTSC, there appears to be limited opportunity to record or get class notes when it is necessary to miss a lecture due to a ride-out.

At CC, there is a perceived need by students for more opportunity to train with an instructor outside regular hours. There also appears to be limited access to pre-ride-out clinical placement such as what is taking place in long-term care facilities. This important clinical training is necessary before students are placed in prehospital work environments. Opportunity to schedule ambulance ride-outs with preceptors is dependent upon these preceptors' schedule (and health). As mentioned previously, consideration should be given to increasing the number of preceptors a given student could be in contact with, in order to facilitate ride-out scheduling, and to offer an opportunity to experience a variety of teaching styles and approaches to paramedicine.

Opportunities for student research experience

There appear to be numerous opportunities in the third and fourth years of the program, but it is unknown how many students take advantage of this opportunity. Often, the fourth year is spent studying part time and working full time as a paramedic. This must reduce the number of students interested in this opportunity.

Students had only positive experiences participating in research projects and the research opportunities at UTSC. The research experience is seemingly limited, however, to the expertise, focus and interests of faculty in the Department of Biological Sciences, whereas there is a growing number of paramedic-led research projects in the country with seemingly limited

exposure/review of this important/leadership body of work in paramedicine. As noted above, there might be meaningful opportunities working with faculty in the Department of Health and Society.

Assessment of learning

Appropriateness and effectiveness of the methods used for assessing student achievement of the defined learning outcomes and degree level expectations, especially in the students' final year of the program;

Overall, assessments seem appropriate in format and content. Formative assessments in the CC simulation facility are of particular value. There were limited opportunities for the team to evaluate the assessments used during clinical placements and ambulance ride-outs. There appear to be no portfolio / logbook-based records used either for formative or summative assessments; these may have a role.

Students suggested they are not prepared for practical exams (OSCE - Objective Structured Clinical Examination) at the college as they are not getting enough time or clarity on the correct method for clinical procedures. This may be remedied by improved access to clinical mentors outside of the traditional classroom. Students lamented on running practice scenarios, but being judged by their peers, not an experienced clinical mentor. 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.

Discussion with students about clinical site visits would suggest that the feedback that is given to students is similar in form to that they will receive from Base Hospitals when they start their career.

Quality indicators

Assessment of program against international comparators

University of Toronto ranks 12th internationally for 'Medicine & life sciences' (QS rankings 2023) but paramedicine is a much less well documented area for such ranks. However, development of links with such a highly ranked program must carry benefits for paramedicine.

The curricular components, teaching methods, clinical placements and assessment methods of the CC program compare well with similar programs serving equivalent health care systems.

Additional strengths, against other comparators, include greater representation of diversity in the students in the program, reflecting the community in Scarborough, the Greater Toronto Area and in Southern Ontario, and an inclusive environment. The strong results on AEMCA exams, compared to provincial average, reflects the strengths of the program and students enrolling in the joint program.

Enrolment and the quality of applicants and admitted students

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.

From the site visit, the issue in enrollment numbers appears to be with the capacity of CC. UTSC would admit more students if they could but seemingly limited by CC's capacity for registration. We heard how more students were let into the program than CC could accommodate, which has caused numerous issues. CC staff did not seem to know that this was from an unusually high number of acceptances to offers, rather than an increase in offers—poor communication between institutions that may lead to animosity from misunderstanding.

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 international students. This is an important consideration if one was to aspire to build upon its national and international scope and leadership.

Student completion rates and time to completion

Available information suggests there is not very good data collection at either institution regarding a precise completion rate and causes for non-completion. We understand there is a reported 25% attrition from the lift testing alone. Many students reported completing the program in greater than four years, either because they failed components, or because they have the ability to work part-time/full-time as paramedics following completion of CC requirements.

Quality of the educational experience, teaching and graduate supervision

Seemingly excellent experience as reported by students while attending CC courses, they appreciated the experienced faculty at UTSC, and were generally proud of and engaged in their

joint program. Paramedic field supervision appears to vary. Paramedic preceptors should be evaluated and this fed back to the joint program's administration for quality assurance.

Implications of any data (where available) concerning post-graduation employability

Suggestion from the site visit describes 100% employability; as previously mentioned the last year of the program is often completed part time as they are working full time. While benefiting greatly from the high-quality graduates of the program, many ambulance services seem reluctant to provide the essential clinical placements required for training. Robust engagement between UTSC/CC and those services is required to strengthen these partnerships.

Availability of student funding

Usual sources are available and described in the self-learning document (page 65). These appear adequate and were not identified as a source of concern by students. Although, one could argue improved student funding might possibly mitigate the appeal and need to work so many hours on the road during the last year of their program.

Provision of student support through orientation, advising/mentoring, student services

Again, there appears to be poor alignment between the two institutions. The CC model of having support services embedded within the library services appears to be a great model, is much appreciated by students, and should be emulated by or shared with UTSC.

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.

Program outreach and promotion

See previous comment, appears to be limited by who can apply (mostly Ontario high school residents). The UTSC/CC Joint program has much to offer and be proud of but is limited in its outreach by its very narrow registration criteria/ability. Anecdotally, many paramedics in Canada are seeking out education and largely attend Australian universities remotely for their undergraduate and graduate training, due perhaps to limited offerings in Canada.

Additional graduate program criteria

Monitoring and management of students' time to completion in relation to the program's defined length and program requirements

Many students take five years for completion due to a variety of circumstances 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 site visit revealed that some would suggest a facilitated transfer or alternative pathways may provide more flexibility and increase the number of students who complete both a diploma and degree compared to the joint program.

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. If implemented, this offers important opportunities as well as implementation challenges.

Differing program requirements abound (e.g., course drop deadlines are different, which is confusing and time consuming for students to navigate, etc.) between UTSC and CC. From the site visit, there are considerable challenges for students to complete the program once they stray from the “model route”. UTSC summer offerings are key to students completing the program in the prescribed time. Even if students have medical or family issues, the program is simply “too tight” to offer much in the way of accommodation, and it is frustrating for staff to not be able to support these students and provide flexibility. The least flexible program is the CC side due to a tight curriculum and timeline.

Quality and availability of graduate supervision

This was previously addressed when discussing the limited availability, inflexible schedule, and seemingly lack of variety in supervision experience by students during ambulance ride outs. Preceptor evaluation does not appear to take place nor is it shared with the faculty or the preceptors themselves. There is no university graduate program per se.

Faculty commitment to student mentoring

Student mentoring appears to mostly consist of 2nd year CC students mentoring 1st year students. There is mentoring in support of research activities, either provided by UTSC faculty or library services. Consideration should be given to facilitating a mentorship program for soon-to-graduate students by experienced paramedics, and as previously mentioned creating opportunities for recent graduates to tutor and mentor students. 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.

Student quality, including for example grade level for admission, scholarly output, success rates in provincial and national scholarships, competitions, awards and commitment to professional and transferable skills;

It is evident from the self-study guide and site visit that graduates from this program pass the provincial A-EMCA exam, and that they routinely exceed the provincial average. Something you should all be very proud of. Importantly, there is virtually 100% employment of graduates in the industry, immediately following graduation.

UTSC staff recommend students to not do this program if they are aiming for medical school as grades are "lower" on the CC side compared to UTSC. CC representatives would suggest that it is the switch from theoretical to applied learning that often causes a lowering of grades.

Evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience

While there appears to be world-class faculty at both UTSC and CC, there is some evidence from the site visit that the two institutions are "separated" by a joint program; where these are two loosely affiliated programs with little inter-institutional dialogue and development. There is a lack of cross recognition of modules and cross-appointment between programs (e.g., Dr. Walter Tavares moved from CC to UTSC but is not cross appointed to our knowledge). There appears to be a lack of exposure to the vast and growing body of scholarly work produced by research-trained paramedics, many of which are world-leaders in their field.

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.

Quality enhancement

While the self-study guide makes mention of this, mostly from UTSC curriculum's perspective, the need for "joint" quality enhancement from the perspective of the entire program must be emphasized.

Initiatives taken to enhance the quality of the program and the associated learning and teaching environment, including initiatives taken to promote student well-being and resiliency in the learning and teaching environment.

The site visit would suggest that CC may have a more holistic approach to student wellness, which includes the recognition and importance of physical and mental health. Unfortunately, there was also evidence that not many students are currently taking advantage of this.

Extent to which initiatives have been undertaken to enhance the program’s accessibility (i.e., for students requiring physical or mental health accommodations) and diversity.

There is a visibly and welcomed diverse student population attending the UTSC/CC joint program. Physical remediation, training, and help is offered to meet the lifting standard. That said, the work of a paramedic is rather physically and emotionally demanding, and it is unclear how many accommodations could/should ultimately be offered to future health care professionals, in whose hands lie the future well-being and life of patients they will look after.

3 Faculty/Research

Scope, quality and relevance of faculty research activities

Based on the self-study guide and comments made at the site visit, it would appear that research and other scholarly activity is occurring. For example, the self-study guide reports a publication list from CC that demonstrates extensive publications focused on paramedic education, clinical, and professional development, although it is less clear whether this research is driven by one individual, and the extent of involvement of students.

UTSC on the other hand reports high levels of funding success and publications, but it does not appear to be related to research focused on paramedicine, and largely reflects the focus, interests, and expertise of faculty in Biological Sciences. While the 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, it was not clear how many students of the joint program are involved, and the extent of collaboration between the two programs or institutions.

While it might be expected that the focus at CC would be distinctive, in relation to UTSC, it appears there is a lot to be gained to draw upon the challenges and opportunities in innovation from CC based faculty and the profession to advance critical and impactful research paths at UTSC. In addition, as noted elsewhere in this report, reaching out to Health and Society at UTSC.

SAMIH could be a major catalyst for bridging gaps in interprofessional practice and community-based health delivery.

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.

Recommendation:

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.

Appropriateness of the level of activity relative to national and international comparators

The self-study guide would suggest that members of the Department of Biological Sciences at UTSC have a greater participation in tri-council funding than other departments. Anecdotally, Dr. Tavares, a former CC based faculty member and now on faculty in the Department of Health and Society, is one of the most productive paramedic researchers in Canada, especially in the area of paramedic education, yet he does not appear to have a direct affiliation with the UTSC/CC joint program. The review team believes it is beyond the scope of the existing terms of reference to provide a comprehensive comparison with other research programs. We would suggest there exists tremendous potential for synergy between the two programs as described above.

Appropriateness of research activities for the undergraduate and graduate students in the Faculty

The self-study guide and site visit would suggest that there are numerous research opportunities for students in the joint program. It appears that most opportunities for applied research learning and experience occur in the fourth year in both UTSC and CC.

A challenge is that many students in the fourth year have dropped to part-time status and are focused on their clinical expertise. This may divide a student's focus, and not provide time that is protected to improve their skill set in research. Moreover, it appears as though there may not

be significant collaboration between the two programs that creates educational synergy for the student.

While difficult to gauge in a two-day visit, it is important to emphasize that research is an expectation of students in the program, not an option that they could pursue if they desire. 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.

To that end, generic or biology focused research, may differ from the type of research that paramedics may be (largely) exposed to and require for their practice. Paramedic students should specifically become familiar with the existing scope of paramedicine research, together with the very specific opportunities and challenges posed to conducting research and its design in the prehospital field. For example, while “bench” science forms an important foundation for health research, other methodologies are important, such as qualitative, mixed methods, consensus building, surveys, etc. It is unclear if students are receiving adequate preparation in these methods, or if their training is generally focused on quantitative approaches on biological samples. Moreover, are students receiving paramedicine context examples, or do they need to extrapolate learnings from biology to the specific field of paramedicine, or the more general field of medicine?

Recommendations:

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.

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 a study, etc. They should be explicitly tied to program learning objectives.

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.

Faculty complement plan

Based on the self-study guide and site visit it is obvious that both programs have talented individuals that make-up the teaching and support staff. However, it does not appear that there is one individual that can coordinate activities across both programs. In many instances we heard and witnessed examples of “two institutions separated by a joint program”. As noted above, one faculty member (Dr. Walter Tavares) who possesses the academic qualifications required for UTSC and the paramedic knowledge and skill required for CC faculty which would put such an individual in an ideal position to create these inter-institution links. This may be a unique opportunity to build resources with this individual to better align these two disparate programs.

Recommendation:

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.

Appropriateness and effectiveness of the academic unit’s use of existing human resources. In making this assessment, reviewers must recognize the institution’s autonomy in determining priorities for funding, space and faculty allocation

While difficult to gauge on a two-day site visit, it would seem that there are examples of where human resources are not presently being used to their full potential. For example, in research as described above there exists the potential for a truly competitive and world class research program that can provide experiences for students that currently don’t exist elsewhere in the country. To accomplish this, support must be provided to those that are currently engaged in paramedicine research at UTSC and/or CC to build this research program.

Recommendations:

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.

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.

4 Relationships

Governance, Academic Leadership and Community

First, the 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. The overall morale of faculty, students and staff is high.

The Joint Program however in most respects represents two independent components and add-ons to each other. In this respect, the two institutions appear to manage their respective components independently sharing several fundamental principles, while respecting their respective processes and mandates. There seems to be a formulaic approach that frames a number of joint programs between the two institutions that has not significantly changed over time.

There are a number of external and internal pressures requiring the two institutions to carefully consider the future of the paramedic profession and role in health care delivery, the education and training required for healthcare professionals in the future, interprofessional training, the ongoing support of the profession and the field through research and for active paramedics throughout their career. 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.

There is an early opportunity to strengthen connections, as a first step, to the Department of Health and Society (UTSC). Discussions should also be initiated to address the likelihood of a three-year diploma program arising for entry to the profession. There has been 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. 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 facilitating those completing a diploma to be able to obtain a degree, and those with a degree to obtain a diploma.

There was a general appreciation of the support for students and pride in the program. Nonetheless, there was a palpable feeling that the program would benefit from initiatives to enhance a sense of community in the program/unit. There is asymmetry between the experiences at CC and that at UTSC where there is more of a sense of community during the period in the program based at CC. This in one respect reflects the differences in class size and cohesion amongst the cohort in courses specific to paramedicine. Strengthening the connections and unity, and “esprit de corps”, between the two institutions is highly recommended. There was an impression that some staff were meeting for the first time during this review. As noted above, the scope and nature of relationships with cognate academic units

and academic leadership and staff should be seen to be an important aspect to the sense of community, in addition to the continued evolution of the program into the future.

There are several examples where there are opportunities to strengthen the program, to build community and to address the changes in the profession of paramedicine, and the future of community-based health delivery and where paramedicine will be crucial. Specifically, these revolve around interprofessional training and experiential learning through the current annual simulated disaster exercise, in the state-of-the-art simulation laboratories, and in class. 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. The site visit left an impression that there are many not aware of the impending SAMIH programs, and that there has been little to no discussion on the potential opportunity that this initiative may provide for the program and paramedicine, although the self-study makes mention of the new academy opening up in 2025.

Relationships, partnerships and collaborations fostering research, creative professional activities, and delivery of teaching programs

The annual simulated disaster exercise involves multiple organizations and stakeholder engagement and is reflective of the commitment to partnerships and collaborations that are key to the success of the program. The self-study points to a program advisory committee (PAC) that brings together stakeholders from diverse areas of paramedicine. There is a partnership led by CC with a UK university/ambulance service providing opportunities for international experience. The Joint Program should 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. The importance of this reflects the importance that paramedicine is playing in the community (i.e., community paramedicine). The global reach and reputation of the University of Toronto (including UTSC), and significant strengths and history of excellence in health care education, training and research, is a significant leverage and opportunity for the paramedicine program in general, students and faculty. In this respect, 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. The joint program is seemingly set up to be a sum of parts, but the potential around synergies and better integration would be a significant boost to the program and the future of paramedicine and health care delivery, and importantly to its reputation, not only nationally but internationally.

5 Organization and Financial Structure

The reviewers understand the autonomy of each of the institutions in determining priorities for funding, space and faculty allocation. There was very little to draw from to comment specifically on the appropriateness of the organizational and financial structure, and its use of existing human, physical and financial resources. There were, however, a couple of observations made. Space appears to be a challenge at CC, for both the paramedicine program and for library services. CC expressed the need for increased financial transfer from UTSC which collects all tuition fees for all four (4) years. 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.

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.

6 Long-Range Planning Challenges

Consistency with the University's Academic Plan

The self-study guide and site visit has identified both challenges and opportunities for this joint program. First, the three-year college mandate that may be approved by the Ontario government will present an important challenge for the program, but also an opportunity to align the two programs in a way that reduces repetition and builds off each program's strengths. Moreover, it should be recognized that many students are presently completing the program in five years, either because they drop to part-time status in fourth year for employment, or because they have had to wait to access required courses due to limited program flexibility if they fail a course. Second, as discussed above, 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.

One observation that was noted during the site visit, but was limited by time to explore further, was the notion (especially from some UTSC faculty) that the value of the joint program was in the opportunities it gave students when they left paramedicine. This was an interesting observation, and not wrong per se as anecdotally sickness and departures from the profession may be at unprecedented levels. However, as was discussed during the site visit, this program is

uniquely situated in Canada to **drive the development of the profession of paramedicine**. 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.

Recommendation:

We recommend continuing to address the listed long-range challenges, which includes the provincial paramedic program standard change to three years, SAMIH collaboration, increasing course choice and collaboration in general with the Health and Society Department, placement partner agreements, and student success support.

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.

Appropriateness of:

Complement plan, including balance of tenure-stream and teaching-stream faculty

We did not have the opportunity for meaningful discussion on the faculty complement during the site visit, but in reviewing the self-study material it appears that there are appropriate staff complement plans. Although one interesting note was that there appears to be no one in the UTSC Department of Biological Sciences who has research expertise in paramedicine.

Recommendation:

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.

Enrolment strategy

The site visit revealed challenges around the number of students that are enrolled in the joint program, and also the coordination of the determination of this number. Moreover, it suggested that the primary focus for the program is on high school students, rather than mature students. There were also multiple suggestions that this program should not be a joint program, but rather a facilitated pathway; opening up opportunities for those that have a paramedic diploma but no degree, and those with a degree that would like to obtain a paramedic diploma.

Recommendations:

Better coordination and teamwork in enrollment in terms of numbers that the CC program can accommodate for the joint program.

Creation of alternative pathways where enrollment can include diploma to degree and degree to diploma pathways.

Development of graduate studies where those with degrees can continue their studies in paramedicine.

Student financial aid

No issues with student aid were identified during the site visit. There appears to be student aid in place, including emergency aid to offset transportation costs for placements.

Development/fundraising initiatives

No specific issues were identified with fundraising during the visit. But, there was no mention of specific fundraising activities that could be found in the self-study guide. As mentioned previously, philanthropic and other fundraising could be leveraged, and with greater collaboration between the two institutions in areas of advancement.

Management and leadership

The site visit suggested that there may be a disconnect between the desire of the leadership team to continue the joint program, and the desire of some staff to continue with the joint program. Numerous staff suggested that students may be better served by a facilitated pathway rather than a joint program, and that there are numerous challenges with the program. It may be important to convene meetings within the institutions first and then between the institutions second to discuss this matter.

As previously mentioned, there is an important opportunity for the leadership of this program to develop an education program that itself provides leadership and development of the paramedic profession.

The content and delivery of the clinical portions of the CC program should be reviewed to identify opportunities to strengthen partnerships with the relevant agencies, to improve preceptor skillsets and assessment mechanisms and to ensure that students are developing the key clinical competencies and decision-making skills.

Recommendations:

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.

7 International Comparators

Assessment of the division/unit and the program(s) under review relative to the best in Canada/North America and internationally, including areas of strength and opportunities

Strengths

It is clear that the program is driven by staff in both institutions who are committed to high quality third level education and excellent subsequent clinical practice. Examples of the strengths of the program include the numbers of students of various cultural backgrounds and the strong results on AEMCA exam compared to the provincial average.

The initiative to develop a joint program reflects best practice in international programs in paramedicine. The potential to complement the best university foundations with an excellent paramedic training program can be realised in such a collaboration if effective planning, coordination and mutual understanding of shared goals are in place.

Weaknesses

Like similar programs in other countries, real challenges exist in ensuring that a four-year joint program is not simply an assemblage of convenient modules, with no overarching framework or goals. It is essential that leadership at a high level exist for the joint program, to ensure clarity of vision for the staff (and students) who are involved. Sadly, experience in the early years of programs which simply 'cobbled together' convenient modules without such vision, was not just of failed courses but of real damage to the concept of integrating paramedicine into the wider professional healthcare family.

Opportunities

The development of SAMIH, with the potential for engagement with healthcare courses and modules, and the likely mandated extension of the paramedic training component to three years, offer significant opportunities. Graduates with a rounded education as future clinicians, researchers, teachers and leaders will contribute hugely to the paramedic profession, to high quality patient care and to the future of the programs that trained them.

Threats

The current program is certainly comparable internationally to equivalent programs, in terms of the quality of graduates - all involved must be complimented on this achievement. Nonetheless, challenges exist in terms of co-ordination, academic integration, staffing and respectful mutual recognition.

The most serious threat faced by the program at the moment may be the (occasionally suggested) option of each agency going its own way and essentially ending the joint program approach. 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.



June 29, 2023

Professor William Gough
Vice-Principal, Academic & Dean
University of Toronto Scarborough

Dear Professor Gough:

Thank you for forwarding the report of the November 2022 external review of the Paramedicine Specialist program (offered jointly with Centennial College).

As indicated in our *Statement of Institutional Purpose*, the University of Toronto is committed “to being an internationally significant research university, with undergraduate, graduate and professional programs of excellent quality.” This quality is assessed through the periodic appraisal of programs and units, which considers how our research scholarship and programs compare to those of our international peer institutions and assesses the alignment of our programs with established degree-level expectations. The University views the reports and recommendations made by external reviewers as opportunities to celebrate successes and identify areas for quality improvement.

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.

I am writing at this time:

1. to request your administrative response to this report, which should include a plan for implementing the recommendations; these plans should also be captured in the enclosed table;
2. to request your feedback on the review summary component of the draft *Final Assessment Report and Implementation Plan*; and
3. to outline the next steps in the process.

1. Request for Administrative Response and Implementation Plan:

In your **Administrative Response**, please address the following areas raised by the reviewers and their impact on the academic programs, *along with any additional areas you would like to prioritize*.

For each area you address, please provide an **Implementation Plan** that identifies actions to be accomplished in the immediate (six months), medium (one to two years) and longer (three to five years) terms, and who (Program Director, Dean) 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.

Please ensure that your administrative response and implementation plan are prepared in alignment with [UTQAP](#) Section 6.4.5 ('Reviews of Inter-Institutional Programs').

- 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.
- 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.
- 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.
- 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 each program’s strengths,” the reviewers recommended consideration and planning for a five-year Paramedicine curriculum.
- 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 research competencies might be expanded, demonstrated, and assessed.
- 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.

- 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.
- 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.”

Please prepare this response in consultation with the program under review. As part of this consultation, please request a brief administrative response from the program that focuses on items within their control. Please reflect this consultation and respond to the key elements of the program’s response in your response.

Finally, please confirm the **date of the next review** and your plans for **monitoring the implementation of recommendations** until then. I will ask you to provide a brief report to me midway between the 2022-23 review and the year of the next site visit.

2. Draft of Final Assessment Report (including Review Summary)

In Summer 2023, my office will provide a draft version of the *Final Assessment Report and Implementation Plan* (FAR/IP), which will include a summary of the review of the Paramedicine Specialist. At that time we will request your feedback regarding tone or accuracy of the summary component, and your response to any information that is requested in the comments. This document becomes part of the governance record.

3. Next Steps

Reviews of academic programs and units are presented to University governance as a matter of University policy. Under the University of Toronto Quality Assurance Process (UTQAP), the Vice-Provost, Academic Programs prepares a report on all program and unit reviews and submits these periodically to the Committee on Academic Policy and Programs (AP&P).

The review of the Paramedicine Specialist will be considered by AP&P at its meeting on **October 24, 2023. Please plan to attend this meeting, and ensure that the program leadership also attends.** Your presence is important and will allow you to respond to any questions the committee may have regarding the report, and your administrative response and implementation plan. An overview of what happens at AP&P is [available on our website](#).

I would appreciate receiving your completed administrative response and plan for implementing recommendations, as well as a copy of the program’s response, and any

comments on the draft FAR/IP by **Thursday, September 21, 2023**. This will allow my office sufficient time to prepare materials for the AP&P meeting.

The review summary and the Dean's administrative response are the two key components of the FAR/IP, which will be finalized after the AP&P meeting and distributed to you, the program lead(s), the Governing Council secretariat, and the Quality Council, and posted on our [website](#), as required by the UTQAP.

Please feel free to contact me or Emma del Junco, Acting Coordinator, Academic Planning and Reviews, should you have any questions.

Sincerely,



Susan McCahan
Vice-Provost, Academic Programs

cc.

Katherine Larson, Vice-Dean Teaching, Learning & Undergraduate Programs, University of Toronto Scarborough

Martha Harris, Academic Programs Officer, University of Toronto Scarborough

Daniella Mallinck, Director, Academic Programs, Planning and Quality Assurance

David Lock, Coordinator, Academic Planning and Reviews

Emma del Junco, Acting Coordinator, Academic Planning and Reviews

Alexandra Varela, Assistant Coordinator, Academic Planning and Reviews

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,



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

Request Prompt <i>verbatim from the request</i>	Rec. #	Recommendations from Review Report <i>verbatim from the review report</i>	Program Response	Dean’s Response
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. Timeline: 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



		<p>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>	<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>Timeline: short / medium term</p>	<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.</p>
	3	<p>“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>	<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>Timeline: short / medium term</p>	<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.</p>
	4	<p>“The CC model of having support services embedded within the library services appears to be a great</p>	<p>Both Centennial and UTSC have exceptional library services. We are reviewing the services highlighted in</p>	



	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. Timeline: 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. Timeline: 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. Timeline: 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>Timeline: 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>



			Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: monitoring</p>	
15	<p>“The potential for a re-focused UTSC year 1 & 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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. Timeline: 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). Timeline: 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. Timeline: 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. Timeline: 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” (https://issuu.com/cache_uoftuhn/docs/cache_magazine_vol4_summer2023_final_hyperlinked) and the school’s recent “Scholarly Activity Report” (https://centennialcollege.widen.net/s/gszmbw9hp8/s)	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>chs-scholarly-activity-report-2018-2021) 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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. Timeline: 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.”	Timeline: 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. Timeline: 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. Timeline: 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. Timeline: 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. Timeline: 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>Timeline: 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>



November 13, 2023

Professor William Gough
Vice-Principal, Academic & Dean
University of Toronto Scarborough

Dear Professor Gough:

I am writing to request a one-year follow-up report to the November 2022 external review of the Paramedicine Specialist program (offered jointly with Centennial College), and the administrative response of September 26, 2023. As indicated in our *Statement of Institutional Purpose*, the University of Toronto is committed “to being an internationally significant research university, with undergraduate, graduate, and professional programs of excellent quality.” This quality is assessed through the periodic appraisal of programs and units, which considers how our research, scholarship, and programs compare to those of international peer institutions and assesses the alignment of our programs with established Degree Level Expectations.

Under the *University of Toronto Quality Assurance Process*, the Committee on Academic Policy and Programs (AP&P) considers external appraisal reports and may request a follow-up report where concerns are raised in an external review that require a longer period of response.

The review identified a number of strengths and concerns, and made several recommendations. At its meeting on October 24, 2023, AP&P requested a one-year follow-up report to check in on the program’s adjustment to its new administrative home at UTSC.

If you are in agreement, your one-year follow-up report will be presented to AP&P for information at its **Cycle 2 meeting in 2024-25 (Fall 2024, date TBC)**. Please plan to attend this meeting in order to respond to any questions AP&P may have regarding the report. I would appreciate receiving the report by **September 13, 2024**; this will allow my office sufficient time to include it in the package of meeting materials.

Please feel free to contact me or Emma del Junco, Acting Coordinator, Academic Planning and Reviews, should you have any questions.

Sincerely,

Susan McCahan
Vice-Provost, Academic Programs

cc.

Suzanne Sicchia, Acting Vice-Dean Teaching, Learning & Undergraduate Programs, University of Toronto Scarborough

Martha Harris, Academic Programs Officer, University of Toronto Scarborough

TBD, Director, Academic Programs, Planning and Quality Assurance

Emma del Junco, Acting Coordinator, Academic Planning and Reviews

David Lock, Coordinator, Academic Planning and Reviews

Alexandra Varela, Special Projects Officer

UTQAP Cyclical Review: Final Assessment Report and Implementation Plan

1 Review Summary

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

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

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



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,

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

Request Prompt <i>verbatim from the request</i>	Rec. #	Recommendations from Review Report <i>verbatim from the review report</i>	Program Response	Dean’s Response
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).”	<p>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.</p> <p>Timeline: short, medium and long term</p>	<p>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.</p> <p>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.</p>
	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



		<p>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>	<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>Timeline: short / medium term</p>	<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.</p>
	3	<p>“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>	<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>Timeline: short / medium term</p>	<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.</p>
	4	<p>“The CC model of having support services embedded within the library services appears to be a great</p>	<p>Both Centennial and UTSC have exceptional library services. We are reviewing the services highlighted in</p>	



	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. Timeline: 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. Timeline: 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. Timeline: 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>Timeline: 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>



			Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: monitoring</p>	
15	<p>“The potential for a re-focused UTSC year 1 & 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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. Timeline: 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). Timeline: 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.	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	Timeline: long term	



		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. Timeline: 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” (https://issuu.com/cache_uoftuhn/docs/cache_magazine_vol4_summer2023_final_hyperlinked) and the school’s recent “Scholarly Activity Report” (https://centennialcollege.widen.net/s/gszmbw9hp8/s)	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>chs-scholarly-activity-report-2018-2021) 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>Timeline: 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>Timeline: 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>Timeline: 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>Timeline: 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. Timeline: 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.”	Timeline: 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. Timeline: 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. Timeline: 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. Timeline: 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. Timeline: 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>Timeline: 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

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

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

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

On June 30th 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.

September 19, 2024

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

One-year Follow-up Report: External Review of the Paramedicine Specialist Program, University of Toronto Scarborough (offered jointly with Centennial College)

Dear Susan,

Thank you for your letter of November 13, 2023 requesting a one-year follow-up report to the November 2-3, 2022 external review of the Paramedicine Specialist program (offered jointly with Centennial College), and the administrative response of September 26, 2023. With this letter and the accompanying table, I am pleased to provide the one-year update requested by the Committee on Academic Policy and Programs (AP&P) on the program's adjustment to its new administrative home, the Department of Health and Society at the University of Toronto Scarborough. Here are the major highlights, with additional details captured in the accompanying table:

- In December 2023, we ratified a new Memorandum of Understanding for Joint Programs with Centennial College that outlines the governance and academic leadership in detail. With the UTSC-Centennial College Joint Programs Steering Committee and its program sub-groups meeting more frequently as of 2024, we expect a smoother and more effective collaboration and integration between UTSC and Centennial College with the day-to-day work of administering the Paramedicine Specialist program. As a part of this work, a dedicated staffing role focused on the coordination of the Joint Programs has been posted at UTSC; Centennial is proceeding with a parallel posting. This enhances capacity at both institutions, expanding beyond what was a shared position based at Centennial.
- The Department of Health and Society has collaborated with Centennial College to propose a major set of program modifications aimed at addressing issues pertaining to ease of transition from UTSC to Centennial College, student readiness and workload, and communications of requirements and expectations. We are currently reviewing the proposed program modifications, taking into consideration the holistic student experience and offering feedback as appropriate.
- Program-level changes to the Paramedicine program and enhanced advisory and program supports in the Department of Health and Society are being developed and assessed in close relation to campus-wide curricular planning for the Scarborough Academy of Medicine and Integrated Health (SAMIH).

Thank you for the opportunity to provide this update. The Dean's Office looks forward to continuing to work toward the implementation of recommendations in collaboration with the Chair of Health and Society and colleagues from Centennial College.

Sincerely,



Professor Karin Ruhlandt
Vice-Principal Academic & Dean

One-year Follow-up Report to the November 2022 UTQAP Review of the UTSC Paramedicine Specialist Program (offered jointly with Centennial College) - Review Recommendations

Date Reported to AP&P: October 24, 2023

Under the *University of Toronto Quality Assurance Process*, the Committee on Academic Policy and Programs (AP&P) considers external appraisal reports and may request a follow-up report where concerns are raised in an external review that require a longer period of response.

The review identified a number of strengths and concerns, and made several recommendations. At its meeting on October 24, 2023, AP&P requested a one-year follow-up report to check in on the program's adjustment to its new administrative home, the Department of Health and Society at the University of Toronto Scarborough.

Request Prompt <i>verbatim from the request</i>	Rec. #	Recommendations from Review Report <i>verbatim from the review report</i>	Program Response (in Consultation with Centennial College)	Dean's Response
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)."	There has been tremendous effort made towards improving the coordination and integration of the UTSC and CC programs. Many of these efforts are described in greater detail below including the hiring of a new Paramedicine Coordinator embedded in the Department of Health & Society to work closely with the newly appointed UTSC faculty lead, Professor Walter Taveres – an expert in paramedicine.	The Dean's Office remains committed to the seamless integration of all our joint programs with Centennial College, including the paramedicine program. To this end, last fall we ratified a new Memorandum of Understanding for Joint Programs with Centennial that outlines the governance and academic leadership in detail. To support the integration of the day-to-day work involved in administering these programs, the Dean's Office supported the hiring of a new Program Coordinator (0.5 FTE) for the paramedicine program. We also plan to hire a new Joint Programs Coordinator who will work with their counterpart at Centennial College 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 additional credits for courses meeting	The proposed 3-year college diploma continues to be discussed at the provincial level alongside consideration of 3-year applied college degrees. UTSC and Centennial continue to monitor these discussions	The Dean's Office will continue to monitor the diploma program expectations in coordination with the Joint Programs Steering Committee. We also continue to monitor provincial discussions about the proposed transition to a 3-year college diploma program.



		<p>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>	<p>and both institutions remain committed to working collaboratively if/when any changes are announced.</p> <p>Centennial recognizes the development of various relevant frameworks into the profession. The Paramedic Chiefs of Canada Principles to Guide the Future of Paramedicine in Canada (released), the Paramedic Association of Canada National Competency Framework for Paramedics in Canada (pending), and the Canadian Organization of Paramedic Regulators entry to practice framework. However, no plans have been made at this time to revise the curriculum to reflect these new areas. These will be considered once additional information regarding the 3-year diploma or degree is provided.</p> <p>UTSC has proposed a new course, “Advances in Paramedicine,” to reflect contemporary changes in the profession – to be offered Winter 2026, once it has successfully moved through governance.</p>	
	3	<p>“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>	<p>Our new Paramedicine Coordinator has been working collaboratively with the Academic Partnerships Coordinator at Centennial College to ensure regular exchange of information pertaining to student advising, orientation programming, and program administration.</p>	<p>The Dean’s Office fully supports these exercises which will help to situate the program within existing DHS curriculum and the Joint Program landscape. We are encouraged to see the high degree of cooperation and coordination that has already taken shape since embedding the program in the Department of Health and Society, with Professor Tavares serving as the program’s faculty lead. UTSC and Centennial College have started holding meetings to discuss and document various processes (e.g., registrarial, student</p>



				support) that take place at both institutions to identify gaps that would need to be filled.
4	<p>“The CC model of having support services embedded within the library services appears to be a great model, is much appreciated by students, and should be emulated by or shared with UTSC.”</p>	<p>UTSC continues to work with Centennial to explore support service models. Specifically, Centennial has shared its “model of having support services embedded within the library services” for UTSC to review and emulate. This review is in progress and expected to continue into the coming year.</p>	<p>The Dean’s Office supports the initiatives undertaken by both DHS and Centennial to provide continuity and mentorship to paramedicine students. We will continue to support this work, working in partnership also with faculty, with the Registrar’s Office, and the Office of Student Experience and Wellbeing, and their counterparts at Centennial. This is an area that is also a priority for the full-time Joint Programs Coordinator role, working in dialogue with departmental and program-specific supports in Paramedicine.</p>	
5	<p>“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.”</p>	<p>Joint program mapping was conducted with input from Centennial and the proposed modifications are currently moving through governance at UTSC. In this new mapping, anatomy continues to be offered by Centennial. However, UTSC has hired a faculty member who has a paramedicine background (Professor Walter Tavares) and experience with the Centennial portion of the program which should provide both institutions with greater continuity and help to ensure all program aspects can be evaluated and shaped using a paramedicine and academic lens. For lab courses, Centennial is actively inviting previous Diploma and Degree graduates to serve as faculty and better support the mentorship of students enrolled in the program.</p>	<p>The Dean’s Office supports the initiatives undertaken by both DHS and Centennial to provide continuity and mentorship to paramedicine students. We will continue to support this work, working in partnership also with faculty, with the Registrar’s Office, and the Office of Student Experience and Wellbeing, and their counterparts at Centennial. This is an area that is also a priority for the full-time Joint Programs Coordinator role, working in dialogue with departmental and program-specific supports in Paramedicine.</p>	



	6	<p>“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.”</p>	<p>As previously noted, joint program mapping was conducted with input from Centennial and the proposed modifications are currently moving through governance at UTSC. Notably, research has also been integrated into the UTSC portion of the curriculum without any duplication of content since Centennial does not offer such courses. For example, the program modification includes the proposed inclusion of courses such as: STAB23 – Introduction to Statistics, PSYB07 – Data Analysis in Psychology, HLTB27 – Applied Statistics for the Health Sciences, HLTB15 – Introduction to Health Research Methodology, HLTD71 – Directed Research in Health Studies, HLTD05 Directed Research on Health Services and Institutions, HLTD02 - Health Research Seminar, HLTD96 Supervised Study in Paramedicine Not all courses are required, students can select from this list.</p>	<p>The Dean’s Office continues to support the Department’s joint curriculum mapping and pathways exercises as described, to fully realize these recommendations. The Dean’s Office is currently reviewing the proposed program modifications, taking into consideration the holistic student experience and offering feedback as appropriate.</p>
	7	<p>“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.”</p>	<p>Professor Walter Tavares in the Department of Health and Society now serves as the faculty program supervisor for the paramedicine program. Professor Tavares works collaboratively with Centennial to coordinate and plan joint activities (e.g., the international exchange program, curriculum mapping, and so on). The new Paramedicine Coordinator in DHS works alongside Professor Tavares, providing administrative support for the program and student advising.</p>	<p>The Dean’s Office facilitated the move of the paramedicine program from the Department of Biological Sciences to the Department of Health & Society where there is faculty expertise in paramedicine, namely Professor Walter Taveres who is best suited to serve as the program’s faculty lead. And, as previously noted, we also supported the hiring of the 0.5 FTE program coordinator. The planned hiring of a full-time Joint Programs Coordinator who will work with their counterpart at Centennial College to oversee administrative functions related to all UTSC/Centennial College joint programs will also lead to increased collaboration between the Joint Programs</p>



				Coordinator and the paramedicine program coordinator.
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>The Department of Health and Society has also partnered with the Department of Family and Community Medicine to establish the “Paramedicine Collaborative at the Department of Family and Community Medicine.” This collaboration provides graduates with opportunities for continued development in paramedicine and research at the graduate level. Professor Tavares, the faculty program supervisor for the UTSC paramedicine program, also serves as the Director of the Collaborative, promoting continuity.</p>	<p>The Joint Programs Steering Committee and its program sub-groups meet at least 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 December 2023, UTSC and CC finalized revisions to the Memorandum of Understanding (MOU) governing the Joint Programs. This document outlines the governance and academic leadership in detail and offers more clarity.</p> <p>The program’s transition to the Department of Health and Society is expected to continue to benefit students and faculty and enable future collaborations, including with SAMIH.</p>	
9	<p>“Strengthening the connections and unity, and ‘esprit de corps’, between the two institutions is highly recommended.”</p>	<p>UTSC and Centennial are engaged in exciting new forms of collaboration and unity. For example, UTSC and Centennial have worked collaboratively on the major program modification proposal; Centennial has become involved in UTSC’s supplementary application processes; Centennial and UTSC have offered joint student information sessions; Centennial is sharing outcomes of new admission processes and more. Both institutions have committed to continue to explore additional opportunities. These kinds of collaborations are expected to be ongoing.</p>	<p>The Dean’s Office recognizes the importance of increased collaboration and supports continued dialogue and information sharing pertaining to admissions, student recruitment, curricular changes, and student advising between UTSC and Centennial College.</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 #9.	As previously noted, last fall we ratified a new Memorandum of Understanding for Joint Programs with Centennial that outlines the governance and academic leadership in detail. In addition to the meetings of the Joint Programs Steering Committee and its program sub-groups, colleagues from both UTSC and Centennial College have begun to meet to discuss pain points and potential solutions related to gaps in existing processes.
	11	“Better coordination and teamwork in enrollment in terms of numbers that the CC program can accommodate for the joint program.”	<p>Centennial and UTSC have participated in UTSC’s admissions processes, specifically jointly reviewing Supplementary Application Forms (SAF) and the overall SAF process. Similarly, Centennial has initiated a new admission process (situational judgment tests (SJT)) as part of their Diploma admission process and has committed to sharing the results of that process for consideration and inclusion at UTSC.</p> <p>Centennial and UTSC continue to discuss changes to the total number of joint program students enrolled. No changes have been implemented as of yet.</p> <p>Discussion regarding enrollment numbers is ongoing. As it relates to the SJTs, these were launched for the Fall 2024 intake. Data anticipated in spring of 2025.</p>	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 continue to work with the Registrar’s Office at UTSC and Centennial, via the Joint Programs Steering Committee, on potential admission tools that may be used to support enrolment growth while also ensuring students are prepared to succeed in the program.
Noting that the physical fitness requirements for provincial certification as a paramedic are	12	“Assuming the lift test continues to be required and an industry standard, efforts should be in place to properly inform,	Both Centennial and UTSC have committed to ensuring lifting, medical and other non-academic requirements, including applicable supports, are	The Dean’s Office looks forward to reviewing the program materials under development to ensure



<p>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>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>communicated to prospective students, early to new students, and on an ongoing basis with existing students. This will include marketing information, declaration statements, in orientations. Accordingly, program materials are under development.</p>	<p>clarity and transparency for prospective and current students.</p>
	13	<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 to entry testing for these important admission requirements.”</p>	<p>Centennial and UTSC have participated in UTSC’s admissions processes, specifically jointly reviewing Supplementary Application Forms (SAF) and the overall SAF process. Similarly, Centennial has initiated a new admission process (situational judgment tests (SJT)) as part of their Diploma admission process and has committed to sharing the results of that process for consideration and inclusion at UTSC.</p> <p>Centennial to share data in the spring of 2025.</p> <p>No changes are planned for Centennial’s lifting requirements or processes.</p>	<p>The Dean’s Office looks forward to the data to be shared by Centennial College, which will offer valuable insights on the new admission process recently introduced.</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</p>	14	<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</p>	<p>Following a comprehensive review and input from both Centennial and UTSC, a major program modification was submitted to the Dean’s office (August 2024). It includes a 2+2 model. This program structure is intended to support many of the issues identified in this review (e.g., ease of transition, student readiness and workload, communication). For</p>	<p>The Dean’s Office is currently reviewing the proposed program modifications, taking into consideration the holistic student experience and offering feedback as appropriate.</p>



<p>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>maturation of students prior to taking on the responsibility of a paramedic together with CC classes.”</p>	<p>example, the 2+2 model reduces the number of transitions from 2 events to 1 and later in their academic journey. To address workload, we have included courses in year 4 that permit flexibility in scheduling to accommodate for difficult placement schedules. To support communication, we have hired a Paramedicine Coordinator in DHS and a program supervisor in paramedicine who understands both UTSC and CC systems, and added more touch points with students.</p>	
	<p>15</p>	<p>“The potential for a re-focused UTSC year 1 & 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>As previously noted, a major program modification was submitted to the Dean’s office at UTSC in August 2024. In addition to a proposed shift to the 2+2 model, the proposal includes new courses outlined in this recommendation and response. A copy of the suggested course sequence has been provided to the Dean’s office for review. The modification includes the suggestions made. For example, we have included HLTB41 – Introduction to the Social Determinants of Health, HLTB16 – Public Health and HLTC19 – Chronic Diseases. We have maintained several of the patient contact courses (e.g., PMDB42 – Prehospital Care 3, PMDC54 – Prehospital Care 4) and PMDB36 – Pharmacology for Allied Health.</p>	<p>The Dean’s Office is confident that embedding the program in the Department of Health and Society will continue to move the program towards realizing the goal of introducing a broader health-oriented foundation to the curriculum. The Dean’s Office is currently reviewing the proposed program modifications, taking into consideration the holistic student experience and offering feedback as appropriate.</p>
	<p>16</p>	<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</p>	<p>Centennial and UTSC remain committed to a competency-based model and structure. Centennial College does not include hour minimums or maximums. Rather, completion or exit decisions are</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>



		hours on the road. Similarly, having access to various preceptors would increase scheduling flexibility and provide greater exposure to different teaching styles and approaches to paramedicine.”	<p>based on 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.</p> <p>Centennial and UTSC plan to continue discussions about how to navigate these placement challenges and solutions.</p>	
	17	“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.”	See response to item # 16.	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.
	18	“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	To prepare students for the transition to professional life we have implemented the following strategies: (1) A new course titled “Paramedicine as a Community Based Health and Social Service” has been included in	The Dean’s Office is currently reviewing the proposed program modifications, taking into consideration the holistic student experience and offering feedback as appropriate. The Dean’s Office supports efforts from



		<p>crucial part of the student’s professional journey.”</p>	<p>the major program modification. This course includes content anticipating and supporting this transition. (2) Work-integrated learning has been moved to years 3 and 4 when students are more prepared for and where most of the socialization into the profession is expected to occur. (3) Centennial has included recent graduates as part of their lab faculty in years 2 and 3. (4) Centennial has organized a mini-symposium connecting learners with members of the profession. (5) our major program modification (if approved) is expected to provide learners with several opportunities to explore the profession in year 4 through supervised/mentored course options (e.g., HLTD71 – Directed Research in Health Studies, HLTD05 – Directed Research on Health Services and Institutions, HLTD02 – Health Research Seminar, HLTD96 Supervised Study in Paramedicine) and/or electives.</p>	<p>both the Department and Centennial College to better prepare students’ transition to professional life.</p>
	<p>19</p>	<p>“Creation of alternative pathways where enrollment can include diploma to degree and degree to diploma pathways.”</p>	<p>Both institutions are supportive of providing additional student pathways. This includes (a) direct admission from high school and (b) diploma to degree pathways (for diploma holders from any public institution including but not limited to Centennial College).</p> <p>New pathways are being explored, including to graduate education facilitated by the “Paramedicine Collaborative at the Department of Family and Community Medicine,” at the Dala Lana School of Public Health.</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 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 each program’s strengths,” the reviewers recommended consideration and planning for a five-year Paramedicine curriculum.</p>	<p>20</p>	<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>The proposed 3-year college diploma continues to be discussed at the provincial level. The province is also considering the ability for colleges to proceed with 3-year applied degrees. Centennial and UTSC continue to monitor these discussions. At this point, Centennial has committed to working collaboratively with UTSC as these areas develop. No changes are scheduled or planned at this time.</p> <p>Following a comprehensive review and input from both Centennial and UTSC, a major program modification was submitted to the Dean’s office and includes a 2+2 model. This program structure is intended to support many of the issues identified in this review (e.g., ease of transition, student readiness and workload, communication). Our intention is to maintain as close to a 4-year program as possible.</p>	<p>As previously noted, the Dean’s Office will continue to monitor the diploma program expectations in coordination with the UTSC-Centennial College Joint Programs Steering Committee. We also continue to monitor provincial discussions about the proposed transition to a 3-year college diploma program.</p>
	<p>21</p>	<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>Following a comprehensive review and input from both Centennial and UTSC, a major program modification was submitted to the Dean’s office and includes a 2+2 model. This program structure is intended to support many of the issues identified in this review (e.g., ease of transition, student readiness and workload, communication).</p> <p>Our intention is to maintain as close to a 4-year program as possible. New graduate programs, including advanced care paramedicine and community paramedicine programs are being explored as part of</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>



			the “Paramedicine Collaborative at the Department of Family and Community Medicine.”	
	22	“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>Following a comprehensive review and input from both Centennial and UTSC, a major program modification was submitted to the Dean’s office and includes a 2+2 model. This program structure is intended to support many of the issues identified in this review (e.g., ease of transition, student readiness and workload, communication). The number of courses provided by Centennial remains unchanged.</p> <p>The proposed 3-year college diploma continues to be discussed at the provincial level. The province is also considering the ability for colleges to proceed with 3-year applied degrees. Centennial and UTSC continue to monitor these discussions. At this point, Centennial has committed to working collaboratively with UTSC as these areas develop. No changes are scheduled of planned at this point.</p>	The Dean’s Office will continue to monitor provincial-level discussions regarding proposed 3-year college diplomas. No changes to the college course credits are expected under the proposed 2+2 model.
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 research competencies	23	“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>A major program modification has been submitted to the Dean’s office at UTSC. This includes a 2+2 model, and the courses outlined in this recommendation and response. A copy of the suggested course sequence has been provided to the Dean’s office for review.</p> <p>Some changes that support a “culture of research” include a proposed new course titled “Paramedicine as a Community Based Health and Social Service” in year 2 that includes discussion about “evidence</p>	The Dean’s Office supports the department’s inclusion of research-oriented courses earlier in a student’s academic career and its commitment to evidence-based practice.



<p>might be expanded, demonstrated, and assessed.</p>			<p>informed practice”. Under the proposed major program modification, Year 2 will also include HLTB15 – Introduction to Health Research Methodology. We have also included several opportunities to engage in research in year 4 through supervised/mentored course options such as HLTD71 – Directed Research in Health Studies, HLTD05 – Directed Research on Health Services and Institutions, HLTD02 – Health Research Seminar, HLTD96 Supervised Study in Paramedicine) and/or related electives.</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>See response to item 23. In addition to the major program modification proposal, establishment of the “Paramedicine Collaborative at the Department of Family and Community Medicine” is complete. This academic research unit at the graduate level will provide opportunities for student engagement in research and related new pathways. For example, 3 PhD-trained paramedics have been given academic appointments providing us with further opportunities for supervised research in a variety of paramedicine related topics (e.g., clinical research, practice-based research, education, first responder wellness, patient care pathways)</p>	<p>See response to item 23. 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>



	25	<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 a study, etc. They should be explicitly tied to program learning objectives.”</p>	<p>A major program modification has been submitted to the Dean’s office at UTSC. This includes a 2+2 model, and the courses outlined in this recommendation and response. A copy of the suggested course sequence has been provided to the Dean’s office for review.</p> <p>For example, we have proposed a new course titled “Paramedicine as a Community Based Health and Social Service” in year 2 that includes discussion about “evidence informed practice”. Year 2 also includes HLTB15 – Introduction to Health Research Methodology. We have also included several opportunities to engage in research in year 4 through supervised/mentored course options such as HLTD71 – Directed Research in Health Studies, HLTD05 – Directed Research on Health Services and Institutions, HLTD02 – Health Research Seminar, HLTD96 Supervised Study in Paramedicine) and/or related electives.</p>	<p>The Dean’s Office supports the department’s inclusion of research-oriented courses earlier in a student’s academic career and its commitment to evidence-based practice.</p>
	26	<p>“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.”</p>	<p>See response to item 25.</p>	<p>See response to item 25.</p>
<p>The reviewers commented that “there exists tremendous potential to have a world-class</p>	27	<p>“We conclude that there is research occurring, but that a coordinated research strategy does not exist between the two</p>	<p>While a collaborative program of research and research strategy between Centennial College and UTSC exists, UTSC is leading this agenda with input</p>	<p>The Dean’s Office supports the Department of Health and Society’s collaborations with Centennial College and other stakeholders to ascertain research priority</p>



<p>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.</p>		<p>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.”</p>	<p>from Centennial on priority areas. Faculty, at UTSC and the Paramedicine Collaborative (described above) are active researchers in paramedicine and health professions education. Our plan is to work collaboratively between both institutions and with partner organizations and stakeholders to identify research priorities. Our aim is to leverage the practice-oriented focus of Centennial College along with the complementary policy, health, population and public health strengths of UTSC.</p> <p>Our major program modification also includes a greater focus on research, engaging learners and partners (through community engaged learning strategies) in future research activities. See response to items 25 and 26 for a list of related courses included in the major program modification.</p>	<p>areas. SAMIH will provide a platform with the capability to align with this vision, creating avenues for the Paramedicine program to establish collaborations within the allied health professions.</p>
	<p>28</p>	<p>“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</p>	<p>See response to item 27.</p>	<p>See response to item 27.</p>



		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.”	See response to item 27.	See response to item 27.
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.”	See response to item 27.	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.
31		“Development of graduate studies where those with degrees can continue their studies in paramedicine.”	Establishment of the “Paramedicine Collaborative at the Department of Family and Community Medicine” is complete. This provides an opportunity to pursue graduate education in Paramedicine. At present, there is no paramedicine specific graduate degree, but several graduates have enrolled in graduate programs	The Dean’s Office will monitor the developments associated with the Paramedicine Collaborative and its potential regarding graduate opportunities in Paramedicine.



			that are now supported by the Paramedicine Collaborative.	
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>A major program modification has been submitted to the Dean’s office at UTSC. This includes a 2+2 model, and a transition from the Department of Biological Sciences to the Department of Health and Society.</p> <p>This transition aligns with the direction of the profession by maintaining some directly relevant biological sciences content (e.g., BIOA01 – Life on Earth, Unifying Principles, HLTA03 – Physiology Through the Life Course: From Birth Through Death, HLTC19 – Chronic Diseases, HLTC27 – Community Health and Epidemiology, HLTC42 Emerging Health Issues and Policy Needs) and opportunities for electives. Other courses support and align with the transition of the profession. For example, by including: HLTA02 – Understanding Health and Society: Theories, Perspectives and Patterns, HLTB40 – Health Policy and Health Systems, PSYB32 – Abnormal Psychology, HLTB41 – Introduction to the Social Determinants of Health, HLTC81 – Health Professions and Practice.</p>	The Dean’s Office is currently reviewing the proposed program modifications, taking into consideration the holistic student experience and offering feedback as appropriate.
	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>See response to item 23.</p> <p>Further, as recommended, paramedicine has been brought into the SAMIH initiative with Professor Tavares serving on a number of SAMIH Planning Tables, including the Academic Programs & Planning table.</p>	On September 14, 2023, the SAMIH Steering Committee, upon application by the previous UTSC Dean, formally included the Paramedicine program in SAMIH. The Dean’s Office appreciates Professor Tavares’ participation in the different SAMIH Planning Tables to see how paramedicine could be better



				incorporated with SAMIH given the strong synergies with campus-wide planning in this area.
	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 involved with the Department of Biological Sciences, and may in itself be a more natural home, in an integrated undergraduate degree in paramedicine.”	See responses as above.	The Dean’s Office appreciates and respects the work of Professor Taveres in collaborating with Centennial College to coordinate and plan joint activities relating to curriculum mapping and the international exchange program. The Dean’s Office also appreciates his participation in the SAMIH Planning Tables to explore additional opportunities and pathways. These discussions will be integrated with ongoing dialogue with academic departments as curricular planning for SAMIH moves forward in 2024-25.
	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 response to item 33.	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. It is a priority for the Dean’s Office to continue to work in close collaboration with Temerty as curricular planning for SAMIH moves forward.
	36	“The opportunity for leveraging the SAMIH program should continue to be a priority as it could potentially improve the	See response to item 33.	The Dean’s Office will continue to monitor discussions happening within the SAMIH Academic Programs Planning Sub-Group to identify such innovation



		program and drive innovation in paramedicine.”		opportunities and their connection with emerging SAMIH curricular priorities.
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.”	See response to item 26, 27 and 31.	The Joint Programs Steering Committee and program sub-group continue to be important tools for inter- and intra-institution collaboration. The program sub-group meets twice a term. The Joint Programs Steering Committee meets at least once in both Fall and Spring.
	38	“Re-imagining the program as a more fully integrated program in Paramedicine positioned to drive the future of paramedicine in Canada.”	See response to items 26, 27 and 31. Further, even in the 2+2 structure proposed in the major program modification, learners will continue to experience an integrated structure taking both UTSC and CC courses through years 3 and 4. In Year 2 a paramedicine specific course (HLTBXX – Paramedicine as a Community Based Health and Social Service) has been proposed to be included to further integration efforts.	The Dean’s Office is currently reviewing the proposed program modifications, taking into consideration the holistic student experience and offering feedback as appropriate.
	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.”	See response to items 26, 27 and 31.	The Dean’s Office anticipates that the continued 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.



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.”	See response to item 16.	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.
	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.”	The main limitation restricting numbers of places available at CC is placement availability. Despite efforts, this continues to be a bottleneck. The issue has been brought forward to local/regional placement sites and to provincial leadership (i.e., the Ministry of Colleges and Universities, the Ministry of Health, the Ontario Association of Paramedic Chiefs, and the Ontario Base Hospital Group). All are active in exploring innovations related to work-integrated learning with our Paramedic Service partners. Centennial and UTSC are continuing discussions about how to navigate these placement challenges and potential solutions.	The Dean’s Office will continue to monitor this area, including in relation to campus-wide discussions about experiential learning and co-op opportunities.
	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 international students. This is an	See response to item 19.	The Dean’s Office will help to facilitate conversations with the Registrar’s Office to explore and expand access pathways for students. It is expected that this will be reviewed on an ongoing basis, in coordination with the program sub-group of the Joint Programs Steering Committee, noting that residency



		important consideration if one was to aspire to build upon its national and international scope and leadership.”		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.”	UTSC to engage with the UTSC Development and Alumni Relations Office.		The Dean’s Office will continue to be in dialogue 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.”	DHS is committed to engaging with the UTSC Development and Alumni Relations Office in near future.		As above.
45	“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.”	DHS have participated in and supported the development of the “Paramedicine Collaborative at the Department of Family and Community Medicine (DFCM).” This has led to 3 PhD-trained paramedic adjunct appointments to U of T. The DFCM along with DHS and the Provost office are exploring increasing that to status only appointments to better support research specific to paramedicine. Once a decision is made, cross appointments will be explored. While adjunct positions and cross appointments between UTSC and CC continue to be explored, both faculty have agreed to provide support (e.g., in curriculum planning, as guest faculty) where feasible and appropriate.		The Dean’s office continues to work with the Department to explore strategies that may facilitate more formalized teaching appointments with CC, including the possibility of Adjunct status-only positions. This will also entail consultation with the Vice-Dean Faculty Affairs, Equity, and Success, and with VPFAL to explore possibilities.



	46	"Paramedic preceptors should be evaluated and this fed back to the joint program's administration for quality assurance."	Centennial is leading efforts on preceptor evaluation given the close links Centennial has with placement sites. UTSC to provide support including links to the Faculty of Medicine "Learner Assessment of Clinical Teaching" (LACT) project.	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.
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