

FOR APPROVAL

PUBLIC

OPEN SESSION

TO: UTSC Academic Affairs Committee

SPONSOR: Prof. William Gough, Vice-Principal Academic and Dean

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PRESENTER: Prof. Katherine Larson: Vice-Dean Teaching, Learning & Undergraduate Programs

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DATE: April 13, 2023 for May 1, 2023

AGENDA ITEM: 4

ITEM IDENTIFICATION:

Minor Modification: New Certificate in Pathways to Health Professions (Category 2 Certificate) (for approval)

JURISDICTIONAL INFORMATION:

University of Toronto Scarborough Academic Affairs Committee (AAC) “is concerned with matters affecting the teaching, learning and research functions of the Campus (*AAC Terms of Reference, 2021, Section 4*).” Under section 5.6 of its terms of reference, the Committee is responsible for approval of “Major and minor modifications to existing degree programs.” The AAC has responsibility for the approval of Major and Minor modifications to existing programs as defined by the University of Toronto Quality Assurance Process (*UTQAP, Section 3.1*).

GOVERNANCE PATH:

1. **UTSC Academic Affairs Committee [For Approval] (May 1, 2023)**

Minor Modification: Certificate in Pathways to Health Professions

PREVIOUS ACTION TAKEN:

No previous action in governance has been taken on this item.

HIGHLIGHTS:

A new Certificate in Pathways to Health Professions, which will be offered by the Department of Health and Society, is proposed as a cross-disciplinary initiative that will contribute to planning for the Scarborough Academy of Medicine and Integrated Health (SAMIH). The Certificate will be offered in conjunction with a designated Major/Major (Co-op) or Specialist/Specialist (Co-op) taken in pursuit of an HBSc degree at UTSC, as follows:

- Major/Major (Co-op) in Biology
- Major/Major (Co-op) or Specialist/Specialist (Co-op) in Conservation & Biodiversity
- Major/Major (Co-op) or Specialist/Specialist (Co-op) in Human Biology
- Specialist/Specialist (Co-op) in Integrative Biology
- Specialist/Specialist (Co-op) in Molecular Biology and Biotechnology
- Major/Major (Co-op) in Molecular Biology, Immunology & Disease
- Major/Major (Co-op) in Plant Biology
- Major/Major (Co-op) or Specialist/Specialist (Co-op) in Neuroscience
- Major/Major (Co-op) or Specialist/Specialist (Co-op) in Psychology
- Major/Major (Co-op) or Specialist/Specialist (Co-op) in Mental Health Studies
- Major/Major (Co-op) in Health Studies – Population Health
- Specialist/Specialist (Co-op) in Medicinal and Biological Chemistry
- Major/Major (Co-op) in Biochemistry
- Major/Major (Co-op) or Specialist/Specialist (Co-op) in Chemistry
- Major/Major (Co-op) or Specialist/Specialist (Co-op) in Environmental Chemistry
- Specialist/Specialist (Co-op) in Environmental Geoscience
- Specialist/Specialist (Co-op) in Global Environmental Change
- Major/Major (Co-op) in Environmental Science
- Specialist/Specialist (Co-op) in Evolutionary Anthropology
- Specialist/Specialist (Co-op) in Psycholinguistics

The proposed Certificate will complement existing science curriculum by drawing together relevant courses that HBSc students might not independently pursue, creating a rich learning experience in the practice of social medicine and preparing students to consider a range of professional health-related options following graduation. Students will complete 2.0 credits from

Minor Modification: Certificate in Pathways to Health Professions

a range of course option across different Departments, in four thematic areas that align with major competencies expected in the health professions:

- Complex Systems, Structures and Settings
- Cultures, Communities and Care
- Critical and Creative Thinking
- Communication and Leadership

Courses that count toward the completion of the Certificate in Pathways to Health Professions are drawn from existing curricular offerings across the humanities, social sciences, sciences, and management. The requirements will leverage existing breadth requirements for the HBSc, which will encourage students to integrate studies in health with their broader academic and civic practice. Key learning outcomes will include expanding student understanding of foundational knowledge and skills in areas related to social medicine, primary health care, and community contexts for health and well-being; cultivating communication skills, critical and creative thinking, and problem solving; and advancing professional integrity, capacity, and autonomy.

The focus of the certificate, and the selection of related courses, is also designed intentionally to reflect campus priorities and commitments articulated in UTSC's Strategic Plan, [Inspiring Inclusive Excellence](#), notably priorities 1.1 and 1.2 around transformative, holistic, and equity-based innovation in undergraduate education, and the campus's recent [curriculum review](#).

Importantly, the Certificate is intended to support provincially supported growth in Life Sciences at UTSC connected to the establishment of SAMIH – namely, an additional 300 Life Sciences undergraduate students graduating with an Hons. BSc. – and to draw upon the multidisciplinary expertise at UTSC to offer Life Sciences students a more holistic perspective on health care that goes beyond the traditional Life Sciences curriculum. In addition, the proposed Certificate will link existing opportunities for professional development and networking with students' academic work and provide opportunities to develop a health-profession focused community of practice within the cohort.

Students will be admitted to the Certificate directly from high school. The first cohort of incoming high school students will be able to apply for the Certificate on the September 2024 application (available as a direct entry offering in OUAC as of Fall 2023) when applying for admission to specified science programs at UTSC, for first enrolment in the Certificate in Fall 2024.

Admission to the Certificate will be managed at the time of application via OUAC. The Health Science Professional category will combine admission to the Certificate and a paired program of study simultaneously. To manage demand and enrolment, only domestic students entering UT

Minor Modification: Certificate in Pathways to Health Professions

Scarborough directly from high school in September 2024 and after are eligible for enrolment in this certificate. This restriction can be managed via OUAC by restricting applications to domestic students only.

Extensive consultation has taken place within UTSC with the Departments of Anthropology, Arts, Culture and Media, Biological Sciences, Computer and Mathematical Sciences, Global Development Studies, Health & Society, Historical and Cultural Studies, Human Geography, Language Studies, Physical & Environmental Sciences, Philosophy, Political Science, and Psychology, and the Chairs and Academic Directors (CAD) group. Tri-campus consultation has taken place with the Tri-Campus Deans group (3CD), the Temerty Faculty of Medicine Vice-Deans and Registrar, and the Council of Health Sciences Deans. The proposal was also presented to the Scarborough Campus Students Union and Departmental Student Association Representatives.

FINANCIAL IMPLICATIONS:

There are no significant financial implications to the campus operating budget.

RECOMMENDATION:

Be It Resolved,

THAT the proposed Certificate in Pathways to Health Professions as described in the proposal dated April 13, 2023, be approved, effective September 1, 2024.

DOCUMENTATION PROVIDED:

1. Proposals to Create a Certificate in Conjunction With an Undergraduate Program (Certificate in Pathways to Health Professions)



University of Toronto

Proposal to Create a Certificate in Conjunction With an Undergraduate Program

Certificates offered in conjunction with an undergraduate program are for-credit undergraduate certificates governed by the [Policy for Certificates \(For-Credit and Not-For-Credit\)](#).

Creation and closure of these certificates follow the protocols for minor modifications; are reviewed with the relevant undergraduate program; and are reported to the Provost through the Office of the Vice-Provost, Academic Programs (VPAP). Successful completion of the certificate is recorded on the academic transcript. Students must be enrolled in a specific undergraduate program. **Please consult with VPAP on the certificate’s name ahead of governance.**

This template should be used to bring forward all proposals for new undergraduate, for-credit, certificates that will be offered in conjunction with an existing undergraduate degree program. The creation of the certificate follows a minor modification process and is reported to the VPAP Office after approval.

Proposed certificate name:	Certificate in Pathways to Health Professions (UT Scarborough)
Undergraduate degree(s) the certificate will be offered in conjunction with:	This Certificate is open to all students pursuing an HBSc and in conjunction with a Major or Specialist in Scarborough Academy of Medicine & Integrated Health (SAMIH) pathway programs provided.
Academic unit:	Department of Health & Society
Faculty/academic division:	University of Toronto Scarborough
Office of the Vice-Principal Academic & Dean contact:	Professor Suzanne Sicchia, Associate Dean Undergraduate Programs & Curriculum adundergrad.utoronto.ca Martha Harris, Academic Programs Officer martha.harris@utoronto.ca
Version date:	13 April 2023



Summary

- Please provide a brief summary of the certificate, including:
 - academic rationale for certificate
 - impetus for its development (including interest and demand)
 - how the certificate fits with unit/division's academic plans
 - any important or distinctive elements.

The new *Certificate in Pathways to Health Professions* to be housed in the Department of Health & Society (DHS) is a cross-disciplinary campus initiative that will contribute to the Scarborough Academy of Medicine & Integrated Health (SAMIH) and its vision of increasing the supply of health care professionals in the eastern Greater Toronto Area (GTA), particularly from under-represented populations. The Certificate will help attract and retain strong students in UT Scarborough Life Sciences programs and open an attractive pathway to SAMIH for students interested in health-related professions.

The proposed Certificate will complement existing STEM curriculum by drawing together relevant courses that HBSc students might not independently pursue, creating a pathway for students which provides a rich learning experience grounded in the principles and practice of inclusive, integrated health and social medicine, connecting **1) coursework** with **2) community-engaged learning** and **3) professional development** in ways that expand students' foundational knowledge and skills, contribute to student success, and improve student candidacy for training in health-related professions.

To complete the Certificate in Pathways to Health Professions, students will select four courses from a list of approved courses that align with core competencies and ethical commitments for a variety of health professions and reflect the priorities of SAMIH and UT Scarborough more broadly.¹ Students will be required to complete one course in each of four groupings, including at least one D-level course:

1. Complex Systems, Structures, and Settings
2. Culture, Communicates, and Care
3. Critical and Creative Thinking
4. Communication and Leadership

To build a sense of community and mutual support among the cohort and promote a (mental) health-affirming learning experience, students enrolled in the certificate will also be encouraged to:

- Get involved with relevant group activities operating on campus and recognized on the Co-Curricular Record;



- Complete professional development workshops offered by various units at U of T (UTSC Library & Gerstein Library, Writing Centre, Math & Stats Learning Centre, Centre for Teaching & Learning (CTL)/Centre for Teaching Support & Innovation (CTSI), Health & Wellness); and
 - Participate in events associated with the Certificate in Pathways to Health Professions, such as a dedicated orientation session, related seminars or guest lectures throughout the year, workshops or symposia taking place at UT Scarborough, UT St. George, or at open “grand rounds” events offered by our health and community care partners, and a capstone event upon completion of the Certificate.
- 1 While specific competencies vary by profession, our environmental scan and literature review revealed certain core competencies are shared across health and health-related professions, such as those articulated by the CanMEDS framework www.royalcollege.ca/rcsite/canmeds/canmeds-framework-e
 - 2 On Canadian healthcare systems and medical education - Aerde et al, 2022 (<https://doi.org/10.36834/cmej.75538>); Hayman et al, 2020 (<https://doi.org/10.36834/cmej.58424>); and Cartmill et al, 2021 (<https://doi.org/10.36834/cmej.72841>).

1 Effective Date

1 September 2024, for the 2024-25 academic year.

The first cohort of incoming high school students will be able to apply for the Certificate on the September 2024 application (available as a direct entry offering in OUAC as of Fall 2023) when applying for admission to specified science programs at UT Scarborough, for first enrolment in the Certificate in Fall 2024.

2 Academic Rationale

- What are the academic reasons for the certificate, and how does it fit with the unit/division’s academic plans?

Recognizing the urgent necessity to address the under-met health needs of the eastern Greater Toronto Area (GTA), including Scarborough and Durham Region, U of T has proposed to establish the Scarborough Academy of Medicine & Integrated Health (SAMIH) at UT Scarborough to provide a hub for training and strengthen connections among healthcare



providers in the region. Through a partnership involving U of T, the Scarborough Health Network, Lakeridge Health, Ontario Shores Centre for Mental Health Sciences, Sunnybrook Health Sciences Centre and Michael Garron Hospital, SAMIH can prepare the next generation of healthcare professionals, increase the number of professionals practicing in the area, and strengthen the health and wellbeing of residents in the area - www.utsc.utoronto.ca/samih The proposed Certificate is part of a broader plan to increase pathways from UT Scarborough to health professional programs in conjunction with the development of SAMIH.

The proposed Certificate in Pathways to Health Professions will be housed within the Department of Health & Society (DHS), an interdisciplinary undergraduate unit with a mandate to promote an understanding of health across a spectrum of academic perspectives: from the clinical and biological health sciences to social science and humanistic ways of knowing. Importantly, DHS has grown significantly in recent years with a larger and more diverse faculty compliment and an expansion of its interdisciplinary curriculum, to further promote and create pathways for students interested in pursuing medicine or graduate studies in an allied health and social service profession. DHS will also be in the SAMIH building once construction is complete. Taken together, these elements make DHS an ideal departmental home for the proposed Certificate.

Leveraging the tremendous strengths of UT Scarborough, the proposed Certificate will complement existing STEM curriculum by drawing together relevant courses that HBSc students might not independently pursue. The aim is to create pathways for students that enrich their learning, help build foundational knowledge and skills for academic success, and expose them to social medicine and prepares them to consider a range of professional health-related options following graduation.

The Certificate in Pathways to Health Professions is designed to leverage breadth requirements without duplicating them, making the certificate less burdensome and more valuable for students. It is also meant to encourage students to integrate studies in health with their broader academic and civic practice. By helping students make these connections, the Certificate will address key learning outcomes, including:

1. expanding student understanding of foundational knowledge and skills, including in areas related to social medicine, primary health care, and community contexts for health and well-being
2. cultivating leadership, communication skills, and critical and creative thinking
3. advancing professional integrity, capacity, and autonomy
4. Certificate Program Learning Outcomes - (Appendix A)



Courses that count toward the completion of the Certificate in Pathways to Health Professions are drawn from existing curricular offerings across the humanities, social sciences, sciences, and management that reflect themes aligned with health professions' stated core competencies. The focus of the certificate, and the selection of related courses, is also designed intentionally to reflect campus priorities and commitments articulated in UTSC's Strategic Plan, [Inspiring Inclusive Excellence](#), notably priorities 1.1 and 1.2 around transformative, holistic, and equity-based innovation in undergraduate education, and the campus's recent [curriculum review](#). Courses otherwise readily available to HBSc students (e.g., core program requirements in the life sciences) will not be eligible to count towards completion of the Certificate, nor will courses with restricted entry or those unrelated to core competencies and related admissions processes for allied health professions. (Appendix B - proposed list of applicable courses)

The Certificate in Pathways to Health Professions will further enhance the student learning experience by building community among certificate cohorts and providing wrap-around services to support student success by incorporating community-engaged learning opportunities and professional development requirements. In these ways, the proposed Certificate is designed to offer students a unique pathway to help students develop ethical and professional skills in medical and health-related fields through a combination of theoretical understanding and practical application.

3 Need and Demand

- Provide a brief description of the projected interest in and demand for the proposed certificate.
- Provide details regarding the anticipated yearly in-take.

The Certificate in Pathways to Health Professions is intended to support provincially supported growth in Life Sciences at UT Scarborough connected to the establishment of SAMIH - namely, an additional 300 Life Sciences undergraduate students graduating with an Hons. BSc. - and to draw upon the multidisciplinary expertise at UT Scarborough to offer Life Sciences students a more holistic perspective on health and health care that goes beyond the traditional Life Sciences curriculum. The proposed Certificate also contributes to the continued growth of experiential learning opportunities, leveraging UT Scarborough's history as the leading Co-op campus at the University of Toronto, that apply classroom theories to the work environment and help bridge students' transition from university to the labour market. In addition, the proposed Certificate will link existing opportunities for professional development and networking with students' academic work and provide opportunities to develop a health-profession focused community of within the cohort.



In keeping with UT Scarborough’s commitment to promoting equity and inclusive excellence, this multidisciplinary certificate is designed to help strengthen foundational knowledge and skills needed to succeed in the HBSc and create an environment where UT Scarborough students can be more competitive when applying for advanced studies in the health professions.

There is no limitation to the number of students who may enrol in the Certificate. UT Scarborough aims to open the Certificate to any student pursuing an HBSc who is interested in pursuing a health profession through SAMIH. We anticipate high initial interest from current and potential students, then tapering to a steady state of about 500 students by 2028.

4 Admission Requirements

- Provide the admission requirements for the certificate.

Students will be admitted to the Certificate directly from high school. Students will select the Certificate in combination with specified science (HBSc) programs at the time of application to UT Scarborough and will be enrolled directly into the Certificate in their first year of study after accepting their offer to UT Scarborough and will need to be admitted to and maintain good standing in one of the programs below to remain in the Certificate. To manage demand and enrolment, only domestic students entering UT Scarborough directly from high school in September 2024 and after are eligible for enrolment in this certificate. This restriction can be managed via OUAC by restricting applications to domestic students only.

The admission restrictions to direct entry and domestic students are designed to meet the SAMIH enrolment growth mandate. The current intent is to build domestic pathways for health professions by prioritizing enrolment through incoming domestic students. Anticipating potential interest from current and international students, there will be clear messaging regarding admission requirements for the Certificate (which is not unique among UT Scarborough programs in being limited to domestic students), and these restrictions can be reconsidered after the Certificate’s initial launch.

Admission to the Certificate will be managed at the time of application via OUAC. The Health Science Professional category will combine admission to the Certificate and a paired program of study simultaneously. Based on discussion with relevant administrative officers this innovative approach to direct entry seems administratively feasible; should this prove



not to be the case; the Health Science Professional category will instead admit students to the Certificate and a relevant admissions category. In either scenario, since no application process is involved once the required conditions for admission to the Certificate are met (i.e., domestic students admitted to a paired Major/Specialist or admissions category), admission to the Certificate can be managed automatically at the time of admission to the campus.

The Certificate must be taken in conjunction with a Major/Major (Co-op) or Specialist/Specialist (Co-op) in one of the following programs:

- Biology
- Conservation & Biodiversity
- Human Biology
- Integrative Biology
- Molecular Biology & Biotechnology
- Molecular Biology, Immunology & Disease
- Plant Biology
- Neuroscience
- Psychology
- Mental Health Studies
- Health Studies - Population Health
- Medicinal & Biological Chemistry
- Biochemistry
- Chemistry
- Environmental Chemistry
- Environmental Geoscience
- Global Environmental Change
- Environmental Science
- Evolutionary Anthropology
- Psycholinguistics

There are no specific courses or minimum grades required to enrol in the Certificate.

5 Program Requirements

- This certificate will consist of a coherent sequence of for-credit undergraduate courses related to an identified topic or theme that may complement the degree program.



- Describe the academic requirements of the certificate and mechanism for the assessment of student performance.
- Clarify the certificate program length.
- Is this certificate linked to a particular undergraduate program or degree? Please explain the relationship.
- Please provide a calendar copy in Appendix B.

The Certificate in Pathways to Health Professions is a Category 2 certificate, offered in conjunction with an undergraduate degree program or programs and recorded on the academic transcript as a component of the undergraduate degree. Students must complete a total of 2.0 credits from a list of approved courses, including one course from each of four groupings and at least one D-level course (see Appendix B).

Each of the four course groupings is organized around a theme related to building or strengthening foundational knowledge and skills for health professions:

- **Complex Systems, Structures, and Settings:** The COVID-19 pandemic shed light on the complexity of health systems and governance; Life Science students interested in pursuing advanced studies and a career in medicine or allied health professions need to cultivate an understanding of this complexity.
- **Culture, Communicates, and Care:** These courses speak to the importance of culturally humility and culturally appropriate health care that is grounded in, reflects, and meets the needs of richly diverse communities in the eastern GTA that SAMIH will serve.
- **Critical and Creative Thinking:** Admission to medical school and graduate training for allied health professions is competitive. The knowledge and skills taught in these courses are fundamental to student success in these fields and the kinds of demands they will confront working in health professions, including calls for quantitative reasoning, and inclusive, culturally competent, and culturally appropriate care.
- **Communication and Leadership:** Together with critical and creative thinking and problem solving, good communication and leadership skills are core competencies across many health professions - the skills needed of future leaders in health care.

The Certificate is intended to be a pathway for under-represented groups in Life Sciences and health professions training. Students are expected to participate in cohort building events during the completion of the Certificate, to support their personal and professional development alongside their academic experience:

- **Professional Development:** Students are expected to complete at least one workshop, event, or learning module for academic success or related professional development activities offered by the Department of Health & Society, academic departments with programs in the Life Sciences, the Centre for Teaching &



Learning, the Office of Student Experience & Well-Being, the Equity, Diversity & Inclusion Office, the Anti-Racism & Cultural Diversity Office, or other campus or tri-campus units.

- **Community of Practice:** Students enrolled in the Certificate are expected to engage in at least one community service activity that is officially recognized as part of the Co-Curricular Record (e.g. UT Scarborough Friends of MSF, Future Black Physicians, the Imani Program, etc.) to help them find and contribute to a community of practice and complement curricular examples of experiential learning, such as Co-op or work-integrated learning. Notably, this also helps students gain the kinds of volunteer and professional experience often considered by medical schools and graduate programs in allied health professions.

Students are also expected to participate in Certificate in Pathways to Health Professions program events annually, such as orientation, annual events or speaker series (at UT Scarborough, UT St. George, or in the community), and a capstone event upon completion.

6 Consultation

- Outline any consultation undertaken with the VP Dean and chair/director of the relevant academic units and relevant programs.

21 October 2022 - Consultation with Chairs (Anthropology, Biology, Physical & Environmental Sciences, Health & Society, Language Studies, Psychology)

16 November 2022 - Office of the Vice-Provost Academic Programs & Innovations in Undergraduate Education (Daniella Mallinick, Jennifer Francisco, Annette Knott)

1 February 2023 - Department of Health & Society Acting Chair

10 February 2023 - Presentation of proposed Certificate framework to Chairs and Academic Directors

17 February 2023 - Department of Health & Society Faculty meeting

Winter 2023 review with UT Scarborough units:

- 24 January 2023 - Consultation with Department of Language Studies
- 26 January 2023 - Chairs & Academic Directors Meeting, with Vice-Dean, Recruitment, Enrolment & Student Success (VDRESS)
- 7 February 2023 - Consultation with Department of Physical & Environmental Sciences
- 10 February 2023 - VDRESS presentation to Chairs & Academic Directors (CAD)
- 13 February 2023 - Consultation with Department of Biological Sciences
- 17 February 2023 - Consultation with Department of Health & Society
- 13 March 2023 - Consultation with Department of Arts, Culture & Media, feedback on course options



- 15 March 2023 - Consultation with Department of Anthropology and feedback on course options
- 16 March 2023 - Consultation with Department of Computer & Mathematical Sciences and feedback on course options
- 17 March 2023 - Consultation with Department of Psychology and feedback on course options
- 22 March 2023 - Consultation with Department of Historical & Cultural Studies and feedback on course options; Consultation with Department of Biological Sciences and feedback on course options; Consultation with Global Development Studies and feedback on course options
- 27 March 2023 - Consultation with Department of English and feedback on course options
- 28 March 2023 - Consultation with Department of Human Geography and feedback on course options; Consultation with Department of Political Science and feedback on course options
- TBD - Consultation with Department of Philosophy and feedback on course options
- 30 March 2023 - Consultation with Department of Sociology and feedback on course options

Tri-campus consultation:

- 24 March 2023 - VDRESS, Associate Dean Undergraduate Programs & Curriculum (ADUPC) and UT Scarborough Registrar presented the Certificate proposal to Temerty Faculty of Medicine Vice-Deans and Registrar
- 10 April 2023 - VDRESS presentation to SAMIH Steering Committee
- 13 April 2023 - VDRESS presentation to Tri-campus Deans (3CD)
- 13 April 2023 - presentation to SAMIH Academic Program Planning Working Group
- 17 April 2023 - proposal presented to Council of Health Sciences Deans

Student consultation:

- 5 April 5, 2023 - VDRESS and ADUPC presented the Certificate proposal to the Scarborough Campus Students Union and Departmental Student Association Representatives

7 Resources

- Describe any resource requirements including, but not limited to, faculty complement, space, libraries and enrolment/admissions.
- Indicate if the certificate will affect any existing agreements with other institutions, or will require the creation of a new agreement to facilitate the certificate (e.g., Memorandum of Understanding, Memorandum of Agreement, etc.) Please consult with the Provost's Office (vp.academicprograms@utoronto.ca) regarding any implications to existing or new agreements.



The UT Scarborough Vice Principal Academic & Dean will support a dedicated staff position (to be housed in the Department of Health & Society). This new hire will manage the administrative and student advising tasks for the Certificate, as well as working in dialogue with the Office of Student Experience & Wellbeing on outreach and co-curricular components. The proposed Certificate draws from existing courses with capacity for additional enrolments, so no new faculty or courses are required at this time. Departments have confirmed that these may be offered with existing resources. However, new courses may be introduced in the future as course requirements are reviewed and refined to better reflect the needs of students and the changing landscape of the health care system and health human resource needs. Recruitment and marketing for the Certificate will be included in regular recruitment approaches and will be led by the Admission & Recruitment Office, with Marketing & Communications involvement where needed.

8 Oversight & Accountability: Review

- Category 2 certificates are subject to periodic reviews with the relevant undergraduate program. Please provide details. This will be tracked by the VPAP Office.

The Certificate in Pathways to Health Professions will be housed in the Department of Health & Society, and subject to the Department’s next review cycle (2029-30).

9 Process Steps & Approvals

The pathway is summarized in the table-

Steps	Dates of consultation and approvals
Development/consultation within unit	17 February 2023 - DHS faculty approval
Consultation with VPAP	Sign-off: 17 March 2023
Department of Health & Society Curriculum Committee	17 February 2023
Academic Affairs Committee	1 May 2023
Submission to VPAP upon approval	1 May 2023
Reported by VPAP to Academic Planning & Programming	

Appendix A: Proposed Learning Outcomes

Certificates offered in conjunction with an undergraduate program will have a subset of complementary learning outcomes in relation to the program. Divisions are responsible for developing the outcomes and expectations for certificates in the context of divisional norms. Please outline in the table below how the design, structure, requirements, and delivery of the certificate support the certificate learning outcomes and expectations.

Certificate Expectations	Certificate Learning Outcomes	How the Design/Structure Supports the Certificate Expectations
<p>1. Depth and Breadth of Knowledge</p>	<p>The Certificate in Pathways to Health Professions focuses on breadth of knowledge: exposure to multidisciplinary perspectives and approaches to a range of health-related topics that reflect core competencies shared across health professions and the complex and evolving health systems landscape and architecture through a progression of introductory, core and specialized courses at the A, B, C, and D-levels in the social sciences and humanities.</p>	<p>Inclusion of a range of courses that expose students to conceptual and practical tools from the social sciences and humanities for investigating how social, cultural, historical, environmental, political, and economic processes shape health systems, access to health care, and in turn, how these shape people’s health and well-being, including how people mobilize to bring about health-promoting and -protective change.</p> <p>Inclusion of courses that introduce students to health care systems and governance, and how it is influenced by and adapts to ongoing challenges presented by changing societal and cultural values, and economic and political arrangements.</p> <p>Inclusion of a range of courses that help students to develop numeracy, quantitative reasoning skills, and critical and creative research and problem-solving that provide a strong foundation for undergraduate, graduate, and professional success.</p>

2. Communication Skills	<p>Students will be able to communicate complex information, arguments, and analyses accurately and reliably, both orally and in writing.</p>	<p>Students are required to take a course that prioritizes the development of communication and leadership skills (Theme 4) and are encouraged to engage in related self-directed professional development workshops available on campus via the library, academic advising, and other related sources.</p>
3. Autonomy and Professional Capacity	<p>Help students acquire foundational knowledge and skills they need to perform well in an HBSc, including library research skills, critical and creative thinking problem solving, seeking out and contributing to a community of practice, etc.</p>	<p>Inclusion of a self-directed CCR / community of practice component to encourage students to connect to relevant groups and organizations on campus. This also serves to help them establish the kind of experiences that many health professions consider in their respective admissions processes.</p>

Appendix B: Proposed Calendar Copy

Certificate in Pathways to Health Professions

Enrolment Requirements

Students will be admitted to the Certificate directly from high school. Students will select the Certificate in combination with specified science (BSc) programs at the time of application to UT Scarborough and will be enrolled directly into the Certificate in their first year of study after accepting their offer to UT Scarborough and will need to be admitted to and maintain good standing in one of the programs below to remain in the certificate. Only domestic students entering UT Scarborough directly from high school in September 2024 and after are eligible for enrolment in this certificate.

The Certificate must be taken in conjunction with a Major/Major (Co-op) or Specialist/Specialist (Co-op) in one of the following programs:

- Biochemistry
- Biology
- Chemistry
- Conservation & Biodiversity
- Environmental Chemistry
- Environmental Geoscience
- Environmental Science
- Evolutionary Anthropology
- Global Environmental Change
- Health Studies - Population Health
- Human Biology
- Integrative Biology
- Medicinal & Biological Chemistry
- Mental Health Studies
- Molecular Biology & Biotechnology
- Molecular Biology, Immunology & Disease
- Neuroscience
- Plant Biology
- Psycholinguistics
- Psychology

Certificate Requirements

Students must complete a minimum of 2.0 credits, including at least 0.5 credit at the D-level, as follows:



- 0.5 credit from Complex Systems, Structures and Settings:
 - ANTA02H3: Introduction to Anthropology: Society, Culture & Language
 - ANTC24H3: Culture, Mental Illness, & Psychiatry
 - ANTD10H3: The Anthropology of Life Itself
 - ANTD16H3: Biomedical Anthropology
 - IDSB04H3: Global Health Policy Analysis
 - GGRB28H3: Geographies of Disease
 - HLTB40H3: Health Policy & Health Systems
 - HLTC29H3: Special Topics in Health Studies, Topics in Allied Health Professions
 - HLTC43H3: Politics of Health Policy in Canada
 - HLTC44H3: Comparative Health Policy Systems
 - HLTD04H3: Planetary Health
 - HLTD40H3: The Politics of Care, Self-Care & Mutual Aid
 - HLTD49H3: Global Health Governance
 - MGEC34H3: Economics of Health Care
- 0.5 credit from Cultures, Communities and Care:
 - ANTA01H: Introduction to Anthropology, Becoming Human
 - ANTC15H3: Gender & Sexualities
 - ANTC25H3: Anthropology and Psychology
 - ANTC61H3: Medical Anthropology: Illness and Healing in Cultural Perspective
 - CITB03H3: Social Planning & Community Development
 - GGRD10H3: Health & Sexuality
 - HLTB41H3: Social Determinants of Health
 - HLTB60H3: Introduction to Interdisciplinary Disability Studies
 - HLTC20H3: Global Disability Studies
 - HLTD47H3: Afrocentrism & the Health of Black Communities
 - PSYC14H3: Cross-Cultural Social Psychology
 - PSYC15H3: Foundations in Community Psychology
 - PSYD10H3: Community & Applied Social Psychology
 - SOCB47H3: Social Inequality
 - SOCC55H3: Special topics in Race and Ethnicity
 - SOCC49H3: Indigenous Health
 - WSTB11H3: Intersections of Inequality
- 0.5 credit from Critical and Creative Thinking:
 - ANTB15H3: Contemporary Human Evolution & Variation
 - ANTC62H3: Medical Anthropology: Biological and Demographic Perspectives
 - ANTC68H3: Deconstructing Epidemics
 - ANTC70H3: Ethnographic Methods in Anthropology: Past, Present & Future
 - BIOG70H3: An Introduction to Bias in Sciences
 - CSCA20H3: Introduction to Programming
 - CSCA08H3: Introduction to Computer Science I
 - ENGC74H3: Persuasive Writing & Community-Engaged Learning



- HLTB15H3: Health Research Methodologies
- HLTC55H3: Methods in Arts-Based Health Research
- MATA02H3: The Magic of Numbers
- MATC90H3: Beginnings of Mathematics
- PHILB09H3: Biomedical Ethics
- PHLB58H3: Reasoning Under Uncertainty
- POLB30H3: Law, Justice & Rights
- PSYC03H3: Computers in Psychological Research: Advanced Topics
- PSYC16H3: Psychology of Imagination
- STAB22H3: Statistics I
- STAB52H3: An Introduction to Probability
- STAB53H3: Introduction to Applied Probability
- WSTC26H3: Critical Race & Black Feminist Theories
- 0.5 credit from Communication and Leadership:
 - ACMB10H3: Equity & Diversity in the Arts
 - HLTC29H3: Education for the Allied Health Professions
 - MGTA38H3: Management Communications
 - PSYC02H3: Scientific Communication in Psychology
- In addition to the formal curricular components, students are encouraged to participate in at least one of each of the following areas to complement their work in the certificate and build a cohort experience:
 - participation in a community of practice or service activity recognized on the Co-curricular Record;
 - professional development workshop or learning module offered by at UT Scarborough or tri-campus office;
 - annual program events, including a capstone event upon completion of the certificate.