

**UNIVERSITY PLANNING COMMITTEE**  
**Wednesday, October 30, 2024 at 10:30 AM**  
**Gilmour Hall, Council Room (Room 111)**

**AGENDA**

Page

**OPEN SESSION**

1. **Notice of Meeting - October 16, 2024** (10:30 a.m.)
2. **Approval of Agenda** (10:30 a.m.)
3. **Business Arising** (10:30 a.m.)
4. **Minutes of the Previous Meeting – September 18, 2024 (Open Session)** (10:30 a.m.)

5. **Chair's Comments and Update** (10:35 a.m.)

6. **McMaster's Accessibility Council Annual Report 2023-2024** (10:45 a.m.)

B. Walker, P. Hearn, & P. Suleiman  
*Information*

9 - 25

[McMaster 2023-2024 Accessibility Activity Report](#)

7. **Report from Graduate Council** (11:05 a.m.)

M. Verma  
*Approval*

26 - 66

1. [Graduate Diploma in Global Surgery: Surgical Care Systems and Health Equity](#)

67 - 105

2. [Non-Academic Microcredentials in Health Technology Assessments](#)

8. **Report from the Faculty of Business** (11:15 a.m.)

K. Hassanein  
*Information*

**9. Other Business (11:45 a.m.)**



## McMaster Accessibility Advisory Council September 2023 – August 2024 Accessibility Activity Report

### MEMO

**DATE:** October 21, 2024

**SUBJECT:** McMaster Accessibility Advisory Council – Annual Accessibility Activity Report

**TO:** Dr. David Farrar, President and Vice-Chancellor

Dr. Susan Tighe, Provost and Vice President (Academic)

Saher Fazilat, Vice-President (Operations and Finance)

**FROM:** Dr. Barrington Walker, Chair, McMaster Accessibility Advisory Council (MAAC), and Vice Provost, Equity and Inclusion

Patricia Suleiman, Senior Director, Human Rights and Accessibility, Equity and Inclusion Office

Paula Hearn, Accessibility Program Manager, Equity and Inclusion Office

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Please find enclosed, for your review, the fourteenth (14<sup>th</sup>) annual accessibility activity report from the [McMaster Accessibility Advisory Council](#) covering the period September 1, 2023 to August 31, 2024.

The McMaster Accessibility Advisory Council, supported by the Equity & Inclusion Office AccessMac Program, is dedicated to advancing equity and inclusion for the diversity of persons with disabilities in our university community. The Council is responsible for ensuring the University's adherence to the Accessibility for Ontarians with Disabilities Act (AODA).

While it is encouraging that McMaster was found to be compliant across most measures in the last compliance reporting cycle to the Ministry of Seniors and Accessibility, there is still much work ahead to ensure the University meets updated compliance benchmarks set for 2025.

Strengthening compliance and strategic activities, including submitting the 2023 AODA Compliance Report and launching the renewed McMaster Accessibility Policy, have highlighted the period. These activities have led to greater collaborations across campus for AODA implementation, established stronger guidance and governance, and identified continuous opportunities for improving accessibility and disability inclusion at McMaster.

The report is divided into summarized sections of compliance-related activities that have occurred over the last year, with links and contacts for more information.

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## Part 1: McMaster Accessibility Advisory Council Updates

Since September 2023, the McMaster Accessibility Advisory Council (MAAC) has undergone changes within its membership and leadership. In June 2024, Anne Pottier stepped down as Chair after chairing the MAAC for over a decade, welcoming new leadership through Dr. Barrington Walker, Vice-Provost of Equity and Inclusion, and Professor of History. Additionally, the MAAC welcomed 4 new members, Omar Ahmed, Associate Vice-President and Chief Financial Officer, Dr. Steve Hranilovic, Dean, Graduate Studies, Ehab Kamarah, Vice-President and Chief Facilities Officer, and Lenore Lukasik-Foss, Director Sexual Violence Prevention and Response Office.

Throughout this reporting period, the MAAC has held four (4) virtual committee meetings (2023: September and November; 2024: March and April). The Committee has been actively overseeing a wide variety of programmatic and compliance-driven initiatives, which are outlined in the report below.

## Part 2: AccessMac Accessibility Program Updates

### Executive Summary

The Accessibility Program (AccessMac) within the Equity & Inclusion Office (EIO) has existed for over a decade. Its mandate is to form deliberate and strategic partnerships with faculty, staff, and students to create and maintain a culture of accessibility and disability inclusion on campus, to act as subject matter experts and provide consultation to the McMaster Accessibility Advisory Council (MAAC), and to coordinate compliance obligations under the Accessibility for Ontarians with Disabilities Act (AODA 2005, S.O. 2005, c.11) on behalf of the University.

Across McMaster, there continues to be demand and need for support with institutional strategic planning, project management and analysis, broad educational development and programming, disability community development and facilitated access, and individual or unit-level consultations. AccessMac has strategically collaborated with campus partners this year to respond to this demand and identify proactive activities to address accessibility and disability inclusion concerns.

**Capacity and Resources:** In this period, with the continued leadership and support from Dr. Susan Tighe, Provost and Vice-President (Academic), AccessMac was able to thrive with the additional resources provided to the Equity & Inclusion Office including:

- The leadership of Dr. Barrington Walker, Vice Provost, Equity & who took on the role of MAAC's Chair in June 2024

- The ongoing guidance and support from Anne Pottier, former MAAC Chair, Director, Technology Support & Operations, University Library, which concluded in June 2024.
- The full-time position of AccessMac's Project Coordinator was essential in reaching AccessMac's training and engagement goals for the year. AccessMac is exceptionally grateful also to have this position renewed for another year.
- Through the funding of the [Accessibility in Teaching and Learning \(ATL\) Roadmap Project is funded by the Strategic Excellence and Equity in Recruitment and Retention \(STEER/R\) Program](#) and sponsored by Vice-Provost, Teaching & Learning Dr. Kim Dej. (2023-2025), important space was created to conduct critical analysis of McMaster's readiness to implement the forthcoming AODA Postsecondary Education Standards. AccessMac has been able to work closely with the Accessibility and AODA Consultant of the STEER/R Project, Kate Brown, to identify opportunities for early adoption of the forthcoming standards. For example, during the drafting of the Accessibility Policy, and in the updating and roll-out of mandatory AODA and Humans Rights training videos.

## Consultations

Throughout this period, the AccessMac Program provided over 276 consultations ranging from referrals, resource sharing, and document reviews to policy and guidance document reviews. Some of the themes identified across consultations include digital accessibility, the built environment, employment accommodations, parking accommodations, and accessibility during protests on campus.

Additionally, based on the 2023 AODA compliance reporting and internal data collection, AccessMac identified a few critical priority areas requiring in-depth consultation (long-term) and adjustments to bring the University further in line with the AODA. These in-depth consultations included:

- Advancing individualized emergency response processes in partnership with University Health and Safety, Employee Health and Well-being, and Faculty of Health Sciences, Safety Office. A streamlined approach and process have been developed to ensure persons requiring support in an emergency is documented, which is a requirement under the Employment Standard of the AODA, but also a critical life saving precautionary practice.
- Improving inclusive procurement processes in partnership with Strategic Procurement. This work is on-going, with initial areas for improvement identified, including tracking AODA service providers, and accessible purchasing patterns.

- Ensuring accessibility and disability inclusions are embedded within the renewed [McMaster institutional brand guidelines](#) in partnership with Communications, Marketing & Public Affairs.
- Consultations on the new McMaster Facility Accessibility Design Standards, led by Facility Services and the Barrier Free Standards Committee.
- Website accessibility compliance with the goal to reach full web accessibility by December 2024 in partnership with University Technology Services.
- Assessments and roadmap for the forthcoming AODA Postsecondary Education Standards in partnership with the Office of the Vice-Provost, Teaching and Learning.
- Accessibility reviews and consults of spaces, including laboratories, and the community garden.
- Review of accessibility at McMaster's convocation in partnership with the Office of the Registrar.

These in-depth consultations significantly add quality value and contribute to making McMaster's structural processes and spaces more accessible and inclusive.

## Training and Engagement

**Training and Engagement Achievements:** With AccessMac's full-time Project Coordinator in place, AccessMac was able to offer both synchronous and asynchronous trainings. This resulted in 3,244 participants attending in-person training workshops (e.g. Welcome Week, Accessibility 101), engagement events (17 in total), and attending committee and network meetings (38+ meetings); in total, 2,200 participants attended more than the previous year. Additionally, through asynchronous delivery, 6,064 individuals were trained (488 more than the previous year), this includes 3,915 individuals who completed the mandatory AODA and Human Rights Code training. Please refer to Appendix A for further information on training and engagement numbers. The following are the top training topics covered during this period:

1. AODA and Human Rights Code
2. Digital and Web Accessibility
3. Tailored training – Accessibility and Disability Inclusion 101
4. Accessible Education / Accessibility in Teaching and Learning
5. Accessible Sessions - Fostering a Community of Belonging

**New and Updated Training Content:** To ensure AccessMac's accessibility and disability inclusion trainings remain current, a full review was done of all asynchronous and synchronous training materials which AccessMac administers. Most notable is updating the AODA and Human Rights Code training, all Welcome Week and Community Advisor training materials, and creating new tailored training content for



Faculties who request a training workshop. Updates include content related to the renewed Accessibility Policy, updated information on best practices and legislation, and a deeper focus on intersectionality. Additionally, AccessMac has partnered with Human Resources to shift the course “Creating Disability Inclusive Work Culture through Accommodations and Accessibility Approaches” to an online format, which will strengthen the course’s contribution to the Inclusive Excellence Leadership Program.

## Part 3: Accessibility Policy Review and Redevelopment

### Executive Summary

**Updating McMaster’s Accessibility Policy:** During this period, to stay current with the AODA’s Integrated Accessibility Standards Regulations (IASR), as required by the AODA, the [McMaster University Accessibility Policy](#) was formally reviewed and approved by the Senate and Board of Governors by June 2024. This Policy is the first to be available online through the Secretariat’s website in a more accessible HTML format.

The review and revision process was overseen by a committee of individuals, including the Equity and Inclusion Office’s Accessibility Program Manager, the Senior Director of Human Rights & Accessibility, and the Chair of the McMaster Accessibility Advisory Council (MAAC).

The redrafting process included an extensive consultative component with the University’s community, including but not limited to the McMaster Accessibility Advisory Council (MAAC), responsible central units (University Libraries, Facilities, Strategic Procurement, Parking, Human Resources, Student Accessibility Services, and the Equity and Inclusion Office), University-wide staff/ faculty/ student consultations, employee groups, Employee Accessibility Network, Black, Indigenous and Racialized Staff Employee Resource Group, the Human Rights and Dispute Resolution Program, the Senior Advisor for Equity, Inclusion, and Anti-Racism in Student Affairs, Office of the Vice-Provost Teaching and Learning, Joint Indigenous-Administrative Consultation Group, and the President/Vice-Presidents, Joint Committee and Provost Council. Their rigorous input and feedback have resulted in a more robust, comprehensive, and inclusive Accessibility Policy.

From this extensive review and consultation process, a revitalized and significantly improved McMaster Accessibility Policy (2024) was developed. The Policy now has embedded all five (5) of the AODA’s IASR (customer service; information and communication; employment; transportation; and design of public spaces), unlike the previous 2010 version, which only included the AODA’s customer service standards in detail. For example, a dedicated section related to the AODA responsibilities of individual supervisors and Human Resources centrally is included in response to the employment standard. Another example is that in response to the information and

communication standard, a specific section was included outlining the University's responsibility to have all websites and web content conform with the Web Content Accessibility Guidelines (WCAG 2.0).

Also, the Policy offers a roadmap for how legislation can be operationalized within the University, strategically depicting its centralized and distributed responsibilities. This has been achieved by naming central units and individual roles at the University tasked with upholding the Policy and having a dedicated AODA compliance responsibility. Concrete resources and links to leading practices have been included throughout to support the policy's implementation and operationalization.

It is important to note that the Policy was drafted using a critical disability justice lens, shifting its approach, definitions, and language towards a more progressive framework that is more collective, socio-cultural, and human rights-based. The Policy also weaves in important perspectives, including intersectionality and anti-ableism.

For clarity, the Policy is not an accommodation policy; rather, it is designed to complement existing accommodation policies at the University (for example, the Policy on Workplace Accommodations, 2015, and the Academic Accommodation of Students with Disabilities Policy, 2020) by going beyond individual accommodations to focus on systemic accessibility and inclusion. Furthermore, the Policy aims to align with the *Equity, Diversity and Inclusion Strategy*, and the University's *Discrimination and Harassment Policy (2022)*, offering a more compliance-driven approach to accessibility and disability inclusion at McMaster.

## Next Steps

In late 2024 and early 2025, the updated Accessibility Policy will be rolled out to the McMaster community. A training video is currently being finalized which will be incorporated into McMaster's mandatory AODA training course. Additionally, to provide accountability with key consulted groups, webinar information sessions will be held with all groups that provided feedback and comments during the Policy's re-drafting.

## Part 4: 2023 AODA Compliance Reporting

### Executive Summary

In preparation for the province's December 31, 2023, biennial AODA compliance reporting, the McMaster Accessibility Advisory Council in coordination with the AccessMac Program launched the 2<sup>nd</sup> AODA Compliance Environmental Scan Survey in March 2023. All major departments from across the University responded to the survey, providing status updates on implementing and compliance with current AODA regulations.

The data analysis from the environmental scan resulted in the following major actions:

1. The University responded “Yes” to all relevant AODA compliance report questions, except for the question related to website accessibility under Section 14 of Information and Communication Standard. A formal workplan and agreement was made with the Ministry of Seniors and Accessibility to achieve website accessibility by December 2024.
2. The data collected and analyzed from the Environmental Scan helped to identify additional minor gaps in accessibility and areas needing small improvements, which resulted in rigorous follow-up with relevant University partners and departments to come into compliance, along with the creation of new resources ([available on the resource page of the Accessibility Hub](#)).
3. Analysis also identified areas of change, progress and improvement since the 2021 bench-mark survey, including central processes established, distributed take up across units, and accessibility policies and practices developed.
4. While the University is compliant with the AODA’s emergency response planning and information requirements under the Employment Standard, Human Resources and the Equity and Inclusion Office identified an opportunity to improve the University’s [Individualized Emergency Response Procedures](#), which was completed in 2024.
5. Renewed awareness, communication, cross-institutional confidence for understanding and implementing the AODA requirements at McMaster.

All data from this Environmental Scan informed the completion of the 2023 AODA Accessibility Compliance Report, which was submitted to the Ministry of Seniors and Accessibility on December 15, 2023. The completion of the report was possible through the collaboration of the MAAC Chair, the Office of the Vice-President of Operations and Finance, and the Equity and Inclusion Office.

## Next Steps

In the coming period, work will continue to address areas needing additional compliance improvements. By December 31, 2024, the University’s institutional websites will be fully compliant. In the winter and spring of 2025, a new Environmental Scan will be launched in preparation for completing the 2025 AODA compliance report.

## Part 5: Web Accessibility

### Executive Summary

**Web accessibility compliance:** The University continues to work towards web accessibility in line with the Accessibility for Ontarians with Disabilities Act (AODA) by implementing the McMaster Web Accessibility Compliance Workplan 2023-2024.

Progress in this area includes establishing governance around web accessibility (including an Advisory Group, and Steering Committee, of which Dr. Barrington Walker, Chair of MAAC, is a member), new support resources for administrators, mass communication with the community, and holding 52 consultations and training sessions with website administrators. An initial deadline to reach web accessibility compliance was set for December 31, 2023. It was anticipated that this first 2023 deadline would not be achieved due to the complex nature of our large institution, which is also highly decentralized. McMaster reported non-compliance on the AODA Section 14 website and web content accessibility within its 2023 AODA Accessibility Compliance Report to the Ministry. Following a dialogue with the Ministry first in March 2023, and a follow-up meeting in November 2023, an agreement was reached for McMaster to have an extension to reach web accessibility compliance by December 31, 2024. McMaster's institutional websites are being prioritized for website accessibility.

The Equity and Inclusion Office and University Technology Services are working closely with other relevant campus partners to ensure the University meets its web accessibility obligations under the AODA by the end of 2024.

## Next Steps

McMaster will work the rest of 2024 to come into Web Accessibility AODA compliance by December 31, 2024, which will be guided by the Ministry-approved Web Accessibility Compliance Workplan and the previous [Web Accessibility Roadmap](#). Key deliverables have been identified to ensure clear communication and accountability. Some of the remaining deliverables to be achieved include a PDF document remediation campaign, the creation of an advanced website inventory system, and continued training and consultations.

## Part 6: Accessibility in Teaching and Learning Roadmap Project

### Executive Summary

The Accessibility in Teaching and Learning (ATL) Roadmap Project is funded by the Strategic Excellence and Equity in Recruitment and Retention (STEER/R) Program and sponsored by Vice-Provost, Teaching & Learning Dr. Kim Dej. Spanning from March 2023 to August 2025, this project seeks to better understand McMaster's current infrastructure for accessibility and its preparedness to adopt the forthcoming [AODA Postsecondary Education \(PSE\) Standards](#). The data collected will be used to develop a 5-year roadmap for early adoption of the AODA PSE standards at McMaster. Project activities also provide space to analyze and define academic accessibility and envision

a more supportive learning environment for diverse current and future McMaster community members with disabilities.

## **Engaging Stakeholders and Collecting Data**

**Key Informant Interviews with Staff and Senior Leaders (September 2023 – July 2024):** 45 interviews with 55 participants from all faculties and 10 central units have provided key context for the status of support for accessibility in teaching and learning across campus. Presently, these interviews are being analyzed to identify gaps in supports and areas for increased efficiency. This data aims to provide evidence for all forthcoming recommendations.

**Journey and Process Mapping Sessions (December 2023 – July 2024):** Over 130 staff and educators participated in journey mapping sessions led by the ATL project team, in partnership with SAS/SSC and MI, outlining how they interact with accommodations and accessibility processes. Two open sessions, faculty-specific sessions in Health Sciences, Engineering, and Humanities, and three effort/impact sessions led by expert consultant Anil Gupta have been summarized into metanarratives to be shared back to stakeholders.

## **Cultivating Community and Accessibility Culture**

**Student and Alumni Accessibility Council (STAAC) (October 2023 – present):** To inform ATL Roadmap project work, a council of 20 students and alumni representing all faculties, all levels of undergraduate and graduate studies, and both full- and part-time enrollment was created. 49 applications were received in Year 1. This initiative was supported by the Student Success Center's CAPS program and participants received a small stipend.

**Accessible Education Fellows (AEF) Program (August 2023 – present):** The AEF program seeks to build a community of accessibility-informed educators interested in collaborating to develop research projects which implement promising accessibility practices, analyze their efficacy, and create new knowledge for dissemination to peers. In Year 1 of the program, 26 individuals from all faculties and 5 central units applied, and 20 completed the program. Feedback from participants in the STAAC and AEF has been largely positive, and demonstrates activities' effectiveness at cultivating a culture of accessibility and disability inclusion in our teaching and learning community.

**McMaster's inaugural Accessible Education Journal (AEJ) (January 2024 – present):** The AEJ builds the capacity of McMaster students, staff, and faculty to engage with disabled people's knowledge, disability studies theories, principles of accessible education, including universal design, anti-ableism, and disability justice. 26 proposals were submitted in the first Call for Submissions, and peer reviews are underway.

### **Events during Teaching & Learning Month and National AccessAbility month:**

Two events, “Critical Conversations in Accessibility in Teaching and Learning” (May 2024 - STEER/R Project Team) and “Why Disclosure Doesn’t Work,” (June 2024 - project team, PACBIC DIMAND, External Expert Accessibility Researcher Mahadeo Sukhai) brought together over 150 participants from McMaster and other institutions to discuss challenges in university accommodations processes and methods to streamline inclusion of students with disabilities.

**Increasing Support for Accessible Education:** The project team secured a \$60,000 grant from eCampus Ontario, which supported the creation of four resources for assistive technology lifecycling. It also enabled purchases of new assistive technology in Library Accessibility Services and Student Accessibility Services.

### **Next Steps:**

Over the coming academic year, the project team and key stakeholders will co-create a 5-year roadmap for early adoption of the AODA PSE Recommendations. Iterative feedback and consensus-building will be key priorities, supported by a second year of the STAAC and the publication of the inaugural edition of the Accessible Education Journal.

## **Part 7: Campus Accessibility Action Plan Updates**

### **Executive Summary**

**Campus Accessibility Action Plan (CAAP):** CAAP continued to be rolled out in the reporting period. The Campus Accessibility Action Plan funds for the 2023-24 financial year were mainly allocated for two items:

- The Campus Services Building (CSB) Accessibility Upgrades project
- The McMaster Barrier Free Design Standards (MacFADS) development

Campus Services Building Accessibility Upgrades project was in construction with substantial completion aimed for the end of October 2024. The total project is over \$2M, with \$1M from the Enabling Accessibility Fund grant. This project includes:

- Adding an elevator
- Creating an accessible entrance
- Barrier-free washrooms
- Barrier-free meeting room
- Ramp to make the ground floor accessible
- Adding additional barrier-free women’s washroom on the first floor



**McMaster Facility Accessibility Design Standards (MACFADS):** To support the continued strategic development of McMaster’s barrier-free design and accessibility improvements, a new project was adopted in late 2022 to establish clear barrier-free standards. These standards will guide the University’s future growth, ensuring current and future facilities and campus spaces are fully accessible for all. McMaster’s Facility Services and Barrier Free Standard Committee have been working closely with [Level Playing Field](#), the consulting agency engaged in creating the Barrier Free Design Standards report. The MACFADS is very close to being finalized and adopted. It’s currently at 99% draft, undergoing final consultations and a quality control process. The guidance document provides specific requirements and details on accessibility standards for the following:

- General design requirements
- Exterior and interior circulation
- Exterior and interior spaces
- Washrooms and sanitary facilities, and
- Student residences

Once completed, this will be an important guidance document for implementing accessibility within the university’s facilities across campus, setting new standards that work towards disability inclusion.

## Next Steps

McMaster’s Facilities Accessibility Design Standards will be finalized in the coming period, including an accompanying policy. Once completed the new standards will be launched and communicated to the community through communication updates, website content, information sessions and trainings.

## Part 8: McMaster Accessibility Community Updates

### Executive Summary

The following section of this report will highlight key accessibility cultural and community development-related activities across the institution that have taken place between September 2023 and August 2024.

### McMaster’s Accessibility and Disability Inclusion Committees

**McMaster’s Employee Accessibility Network:** Established in 2017, the [Employee Accessibility Network \(EAN\)](#) continued in this reporting period as a space for employees with disabilities at the University to connect, network, and collaborate.

Comprised of more than 135 list serve members and growing, the EAN continues offering a lens of lived experience to institutional work that may disproportionately impact employees with disabilities in the absence of consultation.

During this reporting period, six (6) EAN meetings were held. The following topics were discussed during these meetings:

- Peer Support, including various challenges experienced by employees with disabilities
- Celebrating December 3rd – International Day of Persons with Disabilities
- Accessibility Policy
- Consultation with University Health and Safety on the updated Individualized Emergency Response Plan Process
- Consultation and Information session with McMaster’s Barrier Free Standards Committee on the new McMaster Facilities Accessibility Design Standards
- Consultation on the new McMaster community garden
- Group Work planning for the coming year

**Other Committees and Groups:** During this period, accessibility-related committees and groups on campus remained active, including over 40+ meetings of the following groups:

- McMaster Community of Practice
- Web Accessibility Advisory, and Steering Committee
- Disability, Inclusion, Madness, Accessibility, NeuroDiversity (DIMAND)
- McMaster Accessibility Advisory Council (MAAC)
- Employee Accessibility Network (EAN)

Strong partnerships and connections remain with student-based groups on campus, including Maccess, McMaster’s Student Union group, and the Faculty of Engineering’s Engineers with Disabilities group. Additionally, McMaster staff remain connected to many different external community groups, such as, allyHamilton, the Hamilton Disability Employment Network, and the Ontario Network of Accessibility Practitioners (ONAP). Accessibility cannot be done in isolation, and ensuring all of these networks and committees remain active is an essential component of continuously progressing accessibility and disability inclusion on campus.

## **Accessibility and Disability Inclusion Update 2023-2024**

The [2022 - 2023 Annual Accessibility and Disability Inclusion Update](#) is now in its 6<sup>th</sup> year of publication, collecting and highlighting accessibility and disability-inclusion-related projects, activities, networks, research, and scholarship generation carried out by McMaster students, staff, and faculty in any given year.



Containing 56 submissions from across faculties, administrative units and student communities, the report shines a light on the dynamic efforts of McMaster community members in driving accessibility and disability-centred scholarship, service, and advocacy-related work across the University. The publication continues to be shared in an accessible format, please access the following table of contents to learn more about collective work being carried out across the institution in different areas:

1. [Accessibility and Disability Inclusion in Research, Instruction, and Course-Level Enhancements](#)
2. [Accessibility and Disability Inclusion in Institutional Support and Technology-Enabled Learning](#)
3. [Accessibility Policies, Plans, and Committees](#)
4. [Community Building and Engagement at McMaster](#)
5. [Community Building and Engagement Beyond McMaster](#)
6. [Digital and / or Web Accessibility Initiatives](#)
7. [Employment Accessibility](#)
8. [Spaces and Environments](#)
9. [Student Initiatives and Advocacy](#)
10. [Student Support and Service Delivery Upgrades](#)

## **National Accessibility Week**

To recognize National Accessibility Week, AccessMac developed a statement to mark the occasion which was published through the [Daily News](#). Additionally, the annual publication of the [Accessibility and Disability Inclusion Update, 2022-2023](#) was launched.

## **December 3rd: International Day of Persons with Disabilities Programming 2023**

To celebrate this milestone day, AccessMac Program (EIO) hosted five (5) community events, in addition to supporting and promoting other engagement activities held by our community partners. AccessMac's events include:

1. Navigating Accessibility Services Post-Pandemic at McMaster
2. Disability Discussion: Celebrating Disability Pride
3. McMaster Museum of Art's Accessibility Guided Tour and Art Workshop
4. Digital Accessibility in 2023, and
5. Employee Accessibility Network Meeting.

In total, 45 participants joined these events, which is in addition to reaching many more individuals through the publication in the [Daily News article](#) marking the occasion.

## Part 9: Moving Forward

The focus for the coming year will centre around compliance-based activities and strategic planning. Some of the highlights for the 2024-2025 year include:

- **Website Accessibility:** Achieving website accessibility compliance for the University's institutional websites and reporting accordingly to the government before the December 31, 2024, compliance deadline, which is mandated by the Ministry of Seniors and Accessibility.
- **2025 Compliance Reporting:** Launching the 2025 AODA compliance Environmental Scan across the University to capture data that will inform the December 2025 AODA compliance report, which will be submitted to the Ministry of Seniors and Accessibility.
- **Accessibility Plan:** Preparing a new Accessibility Plan as a succession to the 2012- 2015 Accessibility Plan.
- **Accessibility Policy Dissemination:** Roll-out of the newly approved Accessibility Policy, including information webinars and training. Also, an operational guidance document for the Accessibility Policy will be started.
- **Completion of the Accessibility in Teaching and Learning Roadmap Project:** By the end of the project, a blueprint for implementing the anticipated 2025 [AODA Postsecondary Education \(PSE\) Standards](#) for McMaster will be produced. Strategic planning for implementing these new standards will be an important focus in 2025.
- **MacFADS:** Launch of the McMaster Facility Accessibility Design Standards to the community.
- **Compliance and Consultations:** Continued consultations and reviews within priority areas across the University requiring specific accessibility and disability inclusion improvements.
- **Training:** Mandatory, tailored, and on-demand training related to disability inclusion and accessibility across the University's faculties and central units.
- **Collaboration and Engagement:** Continued collaboration and engagement through McMaster's diverse accessibility committees and networks.

We thank those who have worked tirelessly over the years to support disability inclusion. We continue to be committed to leading the University's accessibility initiatives in 2024 and 2025 and are encouraged by the progress McMaster is making in creating a more inclusive and accessible University.

# Appendix A: AccessMac Training and Engagement Data

The following is a list of types of training and engagement activities and the total number of participants involved.

## 1. Synchronous (In-person) Trainings, Workshops, and Committee Meetings

In-Person Accessibility and Disability Inclusion Training and Education Sessions: **949**

Accessibility Committee and Network Meetings (38 in total): **554**

Welcome Week Training (August 2024): **1,111**

Community Advisory Training (August 2024): **142**

Community Engagement Events and other Workshops (17 in total): **488**

***Total Persons Trained and Engaged Synchronously: 3244***

## 2. Asynchronous (Online, Self-Paced) Training

AODA and Human Rights: **Total is 3915 (1764 employees completed, and 2151 students completed)**

Flex Forward Training: **Total is 194 (92 employees completed, and 102 students completed)**

TA Training - Accessibility and Disability Inclusion: **402**

Welcome Week and CA Online Training Component: **1,253**

MSU Executives and Volunteer Training: **300**

***Total Persons Trained and Engaged Asynchronously: 6064***

To : University Planning Committee

From : Christina Bryce  
Assistant Graduate Secretary

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At its meeting on October 22<sup>nd</sup>, Graduate Council approved the proposed New Graduate Diploma in Global Surgery: Surgical Care Systems & Health Equity.

Graduate Council now recommends that the University Planning Committee approve the establishment of the new Graduate Diploma in Global Surgery: Surgical Care Systems & Health Equity.

Attachment

McMaster  
University



**NEW PROGRAM PROPOSAL**

**Graduate Diploma in Global  
Surgery: Surgical Care  
Systems & Health Equity**

**August 2024**

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# 1. PROGRAM

## 1.1 PROGRAM DESCRIPTION

### What

This proposal proffers the development of a four-course Graduate Diploma, entitled “*Graduate Diploma in Global Surgery: Surgical Care Systems & Health Equity*” at McMaster University (henceforth referred to as “Graduate Diploma in Global Surgery”). The one-year Graduate Diploma would be offered primarily asynchronously and online to overcome time zone barriers, travel and visa barriers, financial barriers, improve access for those in the work force, and avoid the inadvertent net loss of providers from low-resource settings to improve academic equity in the field of Global Surgery. Traditionally, academic curriculum in Global Surgery has been high-income country (HIC)-centric through its housing within HIC academic institutions and enrollment of only HIC students. In a field focused on achieving health equity for all, it is imperative that the proposed Graduate Diploma in Global Surgery challenge the status-quo through the mitigation of such barriers in both its delivery and content. Moreover, by engaging expertise and voices from settings where inherent inequities exist (eg., rural/remote HIC, low- and middle-income countries), lived experiences and invaluable perspectives may be shared.

The four proposed courses for the Graduate Diploma in Global Surgery are: Fundamentals of Global Surgery, Contemporary Issues in Global Surgery, Program Planning, Monitoring & Evaluation, and Special Populations and Patient Perspectives in Global Surgery.

### Why

Ever since the Lancet Commission on Global Surgery’s landmark paper in 2015, the role of surgical care in public health has come to the forefront by highlighting that over *5 billion people* in the world lack access to safe, timely, and affordable surgical care<sup>1</sup> Additionally, 1.27 million additional surgeons, anesthetists, and obstetricians are needed by 2030 to meet global needs for surgical care. Presently, one-third of the world’s burden of disease is due to surgical conditions and these will cost the world’s economy \$12.3 trillion USD between 2015 and 2030.<sup>1</sup> Moreover, the total number of surgically avertable deaths annually out-numbers, by more than five-fold, the annual deaths due to HIV/AIDs, malaria, and TB *combined*.<sup>2</sup>

Global Surgery does not simply refer to the surgeon or the surgery. Instead, Global Surgery is focused on surgical care systems; the components of these systems, how they’re interconnected, and the barriers that interfere with these connections. For example, the field considers the patient, the place they’re going, the process of getting there, the personnel at the facility, the infrastructure at the facility, and the community-based resources available pre- and post-facility. As such, Global Surgery is an interdisciplinary field that is reliant upon not only the traditional and allied healthcare professions, but also Engineering, Information Technology, Journalism & Media, Law, Business, Policy & Advocacy, Health Administration, Community Health Workers, and more. Global Surgery has been formally defined as “an area of study, research, practice, and advocacy that seeks to improve health outcomes and achieve health equity for all people who need surgical and anaesthesia care.”<sup>3</sup>

Given the immense burden of disease,<sup>4</sup> there have been economic and moral arguments for investment into surgical care which have resulted in a relative consensus that it is an “indivisible, indispensable part



of healthcare" and an "essential component of Global Health"<sup>5</sup>. This has led to the formation of collaborations between HIC and low-and-middle-income countries (LMICs) through Global Surgery.<sup>6</sup> It has been proposed that this growing burden should be addressed through education, training, workforce expansion, and global research. Similarly, the World Bank Disease Control Priorities Project and the World Health Organization Global Initiative for Emergency and Essential Surgical Care advocate for improved access to surgical care as a crucial worldwide need.

As such, the proposed Graduate Diploma would intentionally target a wide array of interdisciplinary students: trainees in the health and allied health professions; graduate students or those who have just finished a Bachelor's degree in Engineering, Information Technology, Journalism, Law, Business, Policy, or Health Administration; or practicing professionals in the aforementioned disciplines. Following completion of the Graduate Diploma, these individuals may be better suited to integrating academic Global Surgery into their area of expertise in academia, with grassroots or non-governmental organizations, or large agencies such as the United Nations Population Fund, World Health Organization, or the Global Surgery Foundation.

### Why Now, Why Here

As an institution, McMaster has a legacy of Global Health involvement but currently, among the rich ecosystem of Global Health experts and a consortium spanning five continents, there exists no core academic training in Global Surgery. Given the magnitude of the burden of disease and the immense need in every domain of surgical care, it is imperative to invest in academic Global Surgery training. Harnessing McMaster's existing academic Global Health scaffolding, the institution stands to be a national and international leader in the burgeoning field of Global Surgery. Such investments will deploy McMaster alumni in the Global Surgery space as the world's future leaders, advocates, and policy-influencers who will improve access and reduce barriers to surgical care while ethically and sustainably engaging in Global Surgery partnerships.

## 1.2 PROPOSAL PREPARATION AND CONSULTATION PROCESS

Global Surgery, defined as the study and practice of improving access to timely, quality, and affordable surgical care for all, encompasses all fields related to surgical care. This includes not only the traditional healthcare disciplines (e.g., primary care, nursing, midwifery, allied health, surgical sub-specialties, obstetrics and gynecology, anaesthesia, perioperative care, emergency medicine, intensive care, oncology, rehabilitation, palliative care) but also extra-healthcare professions including engineering, journalism, business, law, social studies, health administration, and policy. Therefore, in the development of the proposed Graduate Diploma, an array of stakeholders was consulted internally and externally, as evidenced by the appended Letters of Support.

The initial consultation process commenced with a core Global Surgery Advisory Group at McMaster University which is comprised of a diverse panel of experts with significant depth and breadth of relevant experience: Dr. Sonia Anand, Dr. Brian Cameron, Dr. Esther Chin, Dr. Laurie Elit, Dr. Christy Gombay, Dr. Carolyn Levis, Ms. Patty Montague, Mr. David Oldenburger, Dr. Brad Petrisor, Dr. Lynda Redwood-Campbell, and Dr. Caitlin VanDeCappelle. Within McMaster University's Faculty of Health Sciences, the

Dean and Vice-President (Dr. Paul O’Byrne) was consulted, alongside Chairs of Departments (Dr. Jon Barrett from Obstetrics/Gynecology, Dr. James Paul from Anesthesia, Dr. Mohit Bhandari from Surgery). Dr. Beth Murray-Davis, Chair of the Association of Ontario Midwives and Scientific Director of the McMaster Midwifery Research Centre were also consulted.

Other stakeholders within McMaster University’s healthcare landscape were consulted including: Postgraduate Medical Education Associate Dean (Dr. Parveen Wasi), MacGObAS Director (Dr. Carolyn Levis), MacGlobal Co-Chair (Dr. Andrew Kapoor), Postgraduate Medical Education Global Health Co-Director (Dr. Caitlin VanDeCappelle), and Indigenous Health Associate Dean (Dr. Bernice Downey).

Representing a wide range of interdisciplinary stakeholders at McMaster, the following experts and leaders were consulted: Dean of the Faculty of Engineering (Dr. Heather Sheardown), Mechanical & Biomedical Engineering (Dr. Ravi Selvaganapathy), Primary Care and Refugee Health (Dr. Lita Cameron), Ethics and Humanities (Dr. Lisa Schwartz), Health Policy (Dr. Lydia Kapiriri), and Innovation and Health Technology (Dr. Abubaker Khalifa). An online focus group of an array of students and trainees representing the diverse interdisciplinary fields critical to Global Surgery, was held on March 16, 2024 which confirmed demand and support for such a Graduate Diploma.

Beyond the walls of McMaster, external consultations were undertaken with the following stakeholders: Canadian Red Cross International Emergency Response Unit (Dr. Lynda Redwood-Campbell), Save The Mothers Co-Founder (Dr. Jean Chamberlain), St. Joseph’s Health System International Outreach Program (Mr. Mike Nixon), University of Alabama at Birmingham Mary Heersink Institute of Global Health (Dr. Alan Tita) and University of Toronto Dalla Lana School of Public Health Journalism & Health Impact Fellow (Dr. Stephanie Ferguson).

### 1.3 CONSISTENCY WITH MCMASTER’S MISSION & ACADEMIC PLAN

The Graduate Diploma in Global Surgery aligns with McMaster’s 2020-2025 Strategic Mandate Agreement priorities<sup>7</sup> and the 2021 Vision Statement *“impact, ambition, and transformation through excellence, inclusion, and community: advancing human and societal health and well-being”*.<sup>8</sup> By forging a foundational understanding of the issues underpinning surgical care systems and health inequity worldwide, the Graduate Diploma aims to cultivate future leaders, policy makers, advocates, and Global Surgery experts to address some of the greatest challenges affecting the world’s most vulnerable. This will be accomplished by leveraging McMaster’s existing strengths in Global Health, evidence-based practice, and problem-based learning to deliver a unique high-quality program.

The proposed interdisciplinary Graduate Diploma, which will be delivered online and asynchronously to overcome time zone, travel, financial, and personal/professional barriers, will improve academic equity for an array of students globally. This innovative teaching approach<sup>9</sup> is in keeping with the central tenets of McMaster’s Faculty of Health Sciences<sup>10</sup>: innovation and excellence; flexibility, nimbleness, and entrepreneurship; diversity, inclusivity, and equity; cultural competency and safety; professionalism; interprofessional and transdisciplinary collaboration; and commitment to local, national, and international communities and partnerships.

In the future, at the discretion of Faculty of Health Sciences planning, consideration may be given to locating this Graduate Diploma in Global Surgery within other existing graduate offerings within the Global Health Office.

#### 1.4 PROGRAM LEARNING OUTCOMES

By the completion of the Graduate Diploma program, students will be able to:

1. Gain an understanding of the Global Surgical landscape, the burden of global surgical disease and contributing factors, and strategies to address the burden of global surgical disease.
2. Analyze ethical issues in Global Surgery through application of ethical frameworks.
3. Critically analyze research evidence to understand the intersectionality of global surgery, climate change and Planetary Health.
4. Gain familiarity and apply the principles of program planning, monitoring, and evaluation to global surgical programs.
5. Understand the global surgical issues experienced amongst diverse groups and special populations and implications for global surgical care.
6. Develop skills in research synthesis and analysis of complex issues
7. Gain experience working in diverse interprofessional cross-cultural teams

#### 1.5 CONSISTENCY WITH DEGREE LEVEL EXPECTATIONS

Students will be required to complete 4 graduate level courses, as outlined in *3.2 Structure & Regulation*. Completion of the program requirements for the Graduate Diploma in Global Surgery will achieve all of the Master of Science (MSc)-level Degree Level Expectations (DLEs) except Research and Scholarship. Students will not be required to complete a practicum or thesis paper as part of the requirements of the program. Table 1 outlines how the program requirements will achieve each of the DLEs. Section *5.3 Curriculum Map* demonstrates the connection of each of the DLEs with the curriculum.

Table 1. Graduate Degree Level Expectations (DLEs) for Diploma in Global Surgery

GRADUATE DLEs	Graduate Diploma in Global Surgery
1. Depth and Breadth of Knowledge	Students will develop a thorough knowledge and awareness of Global Surgery through assigned readings, guest lectures, and case-studies.  PLO 1, PLO 5
2. Research and Scholarship	Students will use research evidence to understand complex issues in Global Surgery.  PLO 3, PLO 6,
3. Application of Knowledge	Students will be expected to apply knowledge to identify innovative solutions to complex real-world problems through problem-based learning, case-studies, and assignments.  PLO 2, PLO 4, PLO 5

4. Communication Skills	Students will develop communication skills to present arguments and debate complex issues.  PLO 7
5. Awareness of Limits of Knowledge	Students will recognize the complexity and intersectionality of issues in Global Surgery and its impact on addressing these challenging real-world problems. Students will be encouraged to identify address knowledge gaps through analysis of complex problems and critical discussion.  PLO 1, PLO 3, PLO 6
6. Autonomy and Professional Capacity	Students will be expected to demonstrate initiative, professional autonomy, and develop transferrable skills by addressing real-world Global Surgery problems through individual and group work.  PLO 4, PLO 7

1.6 DEMAND FOR PROGRAM

I. Evidence of Societal/Labour Market Need

The field of Global Surgery is unique as it approaches health inequities in surgical care through a horizontal paradigm with cross-cutting themes that transcend boundaries within and between professions. As such, traditional labour market need analyses cannot be performed. Prospective students and current experts in academic Global Surgery are derived from a range of training backgrounds and hold various degrees and credentials that are not limited to a particular sector. Moreover, these individuals may be employed by a range of entities globally ranging from non-governmental organizations, academic institutions, healthcare facilities, ministries of health, private corporations, media outlets, and grassroots organizations.

If one were to take a solely health profession-centric view, which represents but one of the multitude of disciplines engaged in Global Surgery, healthcare made up the second-largest industry group by employment in January 2024 in Ontario (968,100 or 12.2%), behind wholesale and retail trade.<sup>11</sup>

II. Evidence of Student Demand

There is currently no graduate training in academic Global Surgery in Ontario. In this burgeoning field, only two other options to pursue academic Global Surgery exist elsewhere in Canada, thereby leading to a dearth of data pertaining to student demand. The University of British Columbia (UBC) offers a Graduate Certificate in Global Surgical Care and a two-year Master of Global Surgical Care (MGSC)<sup>12,13</sup> while McGill University offers a Concentration in Global Surgery within their Master of Science in Experimental Surgery.<sup>14</sup>

The only pertinent data available is from UBC’s MGSC, which was initiated in 2018. Between 2018 and 2022, enrollment in the MGSC doubled.<sup>11</sup> Unfortunately, no disaggregated data regarding local, regional, domestic, and international students are available. During the 2023-2024 academic year, one of the

members of the McMaster Global Surgery Advisory Group, who teaches a course within the MGSC, reported that a record number of students enrolled in said course. This was more than double previous years' enrollment, which contributes to the observation that the demand for graduate level curriculum is increasing as the field of Global Surgery expands. There is no available data on UBC's Graduate Certificate in Global Surgical Care nor McGill University's Concentration in Global Surgery. Given that UBC's Graduate Certificate in Global Surgical Care and MGSC are offered online, such programming would theoretically reach prospective students at McMaster. However, during various clinical and academic teaching encounters with medical students, surgical residents, nursing/midwifery students, and engineering students at McMaster, very few of the Faculty of Health Sciences trainees and Faculty of Engineering students encountered are aware of the field of Global Surgery. Of the few who are aware, most have approached a McMaster faculty member for opportunities. Due to the paucity of Global Surgery curriculum and efforts at McMaster, this faculty has had to refer more than a dozen McMaster students or trainees to UBC's Global Surgery Lab over the last 12 months. An additional 4 students from other Ontario universities have been referred by this faculty member to UBC's Global Surgery Lab. This demonstrates the unmet demand for Global Surgery at McMaster University and within Ontario post-secondary institutions.

Broadly, the demand for graduate training in Global Health remains consistently high. For the 2023-2024 year, a 9% increase from the preceding year was noted in applications to McMaster's MSc in Global Health. Of the 693 applications received, 106 students were admitted to this program.<sup>15</sup> Student demand from within this cohort is difficult to estimate given that no academic Global Surgery graduate options are available in Ontario. It would however be reasonable to extrapolate that within such pools of applicants, a portion would be interested in pursuing a concentration in Global Surgery, particularly given the high rate of medical school application following the MSc in Global Health. Moreover, there are those that may have declined McMaster's offer of admission to this program to pursue studies at another institution due to the absence of Global Surgery curriculum at McMaster.

McMaster University is home to Canada's third-largest medical school. The direct clinical applicability of many surgical care initiatives would naturally attract those on the M.D. career path, including those interested in a wide range of non-surgical specialties involved with surgical care (e.g., anesthesia, perioperative care, emergency medicine, primary care, intensive care, rehabilitation medicine, oncology, palliative care, allied health, midwifery). This Graduate Diploma at McMaster capitalizes on this cohort of potential Global Surgery leaders within undergraduate and postgraduate medical education. An online focus group of an array of students and trainees representing the diverse interdisciplinary fields critical to Global Surgery, was held on March 16, 2024, which confirmed demand and support for such a Graduate Diploma. This focus group consisted of one of each of: McMaster University final-year medical student, Queen's University third-year medical student, McMaster Year 2 General Surgery Resident and member of the University of British Columbia (UBC)'s Global Surgery Lab, McMaster Year 5 General Surgery Resident who had previously completed UBC's Graduate Certificate in Global Surgical Care, McMaster Master of Science in Global Health student, and a McMaster Engineering graduate student.

In the wider ecosystem in which McMaster operates, the University of Alabama at Birmingham (UAB) has expressed significant interest in this proposed Global Surgery Graduate Diploma. The Graduate

Diploma was presented during meetings held between McMaster and UAB leadership on March 22, 2024. Subsequent follow-up meetings were held in April 2024 and it was felt that the four proposed courses at McMaster would complement the suite of graduate course offerings at UAB, which currently consists of a single inaugural course on Global Surgery. Moreover, UAB's Director of Global Surgery expressed a need for Global Surgery curriculum for UAB General Surgery residents and conveyed that the proposed online and asynchronous course delivery would be ideal for the demanding and dynamic schedules of such trainees.

Finally, as the field of Global Surgery experiences exponential growth, students that possess academic training in Global Surgery will have an employment advantage. This corroborated by the letter of support from Dr. Geoff Ibbotson, a leader in the field and Executive Director of the Global Surgery Foundation based in Geneva, Switzerland. Specifically, in light of the spotlight placed on Global Surgery by the World Health Assembly in May 2023<sup>16</sup>, those with an understanding of the complex intertwining issues that affect surgical care systems will have an advantage even outside of traditional clinical care delivery settings. For example, they will possess the expertise necessary to write logic models or apply for grants with a Global Surgery focus and will also have an advantage in project management and technical advisor roles in this space.

### III. Justifiable Duplication

Regionally and nationally, there exists a gap in the academic Global Surgery landscape. There is currently no graduate training in Global Surgery in Ontario. In the remainder of Canada, the University of British Columbia (UBC) offers a Graduate Certificate in Global Surgical Care and a two-year Master of Global Surgical Care<sup>8,9</sup> while McGill University offers a Concentration in Global Surgery within their Master of Science in Experimental Surgery.<sup>10</sup>

Given that UBC's Graduate Certificate in Global Surgical Care and MGSC are offered online, such programming would theoretically reach prospective students at McMaster. However, during various clinical and academic teaching encounters with medical students, surgical residents, nursing/midwifery students, and engineering students at McMaster, very few of the Faculty of Health Sciences trainees and Faculty of Engineering students encountered are aware of the field of Global Surgery. Of the few who are aware, most have approached a McMaster faculty member for opportunities. Due to the paucity of Global Surgery curriculum and efforts at McMaster, this faculty has had to refer more than a dozen McMaster students or trainees to UBC's Global Surgery Lab over the last 12 months. An additional 4 students from other Ontario universities have been referred by this faculty member to UBC's Global Surgery Lab. This demonstrates the unmet demand for Global Surgery at McMaster University and within Ontario post-secondary institutions. Moreover, the students enrolled in McMaster's Graduate Diploma in Global Surgery would be net new students and not those taken from existing programs.

The proposed Graduate Diploma in Global Surgery is distinct from UBC's Graduate Certificate and McGill's Concentration for many reasons. First, the proposed core content is more diverse and offers an introduction to contemporary issues in the field, beyond that of the burden of disease. As a result, graduates will be cognizant of the current landscape of Global Surgery and prepared to effectively

engage and navigate these realities. Second, the proposed Graduate Diploma is in keeping with the classic definition of Global Surgery, where the field involves not only the traditional health and allied healthcare professions, but also extra-healthcare disciplines. As such, the target demographic includes clinicians and those in clinical training programs alongside other professions such as engineering, journalism, business, law, and policy and advocacy. Such non-clinicians would include those who hold a Bachelor's degree in these fields, graduate students in these programs, or practicing or qualified professionals in each of these extra-healthcare fields. Such a diverse student body will facilitate cross-pollination of ideas which transcend professional background and career trajectory. In the same vein, the core and guest faculty will consist of a multidisciplinary array of professionals, many of whom are faculty within McMaster's Global Health Office and the MSc in Global Health. In bringing together clinical and extra-healthcare expertise, this approach will harness synergies to address one of the most pressing challenges facing the world's most vulnerable.

Otherwise, given that there is no current academic Global Surgery curriculum at McMaster, the Graduate Diploma complements the existing suite of Global Health offerings within McMaster and within the larger Global Health Consortium that spans five continents.

## 1.7 DEGREE NOMENCLATURE

The proposed Graduate Diploma is a stand-alone Type 3 graduate diploma. The "Diploma" nomenclature was selected in keeping with precedents at McMaster. The program name intentionally includes "Global Surgery" to underscore the program's primary focus on the unique aspects of surgical care systems. This also reinforces Global Surgery's position as an essential yet distinct component of Global Health, which is in keeping with the Lancet Commission on Global Surgery<sup>1</sup> and other landmark papers in the field.<sup>2,3</sup> There is explicit reference to "Surgical Care Systems" as a nod to the breadth of the field and "Health Equity" is also present as this is central to both the content and delivery of the Graduate Diploma.

## 2 ADMISSION & ENROLMENT

### 2.1 ADMISSION REQUIREMENTS

The Graduate Diploma is intended to be an introduction to the academic field of Global Surgery. Given the inherent interdisciplinary nature of the field of Global Surgery, the course curriculum does not depend on a student's background in any health/surgery or global studies/development profession and there are no explicit or specific degree requirements. However, the final admission requirement listed below intends to self-select applicants who will have had informal exposure to the field (eg., prior volunteer work, previous NGO or grassroots organization programming, employment) which will aid in their success in fulfilling the academic demands of graduate level courses in Global Surgery.

- Completion of a four-year honours undergraduate university (Bachelor’s) degree (or equivalent) and a B+ average in the final year of undergraduate study. On a percentage scale, the B+ average equates to a 75 to 79% (8.5/12.0 on the McMaster grade point average scale)
- Applicants whose native language is not English must provide evidence of English proficiency. This can include an official copy of the TOEFL score, or other evidence. A minimum TOEFL (iBT) score of 92 (580 on the paper-based TOEFL test, or 237 on the computer-based TOEFL test) is needed for the Faculty of Health Sciences. Students taking the IELTS are required to achieve a minimum score of 6.5, with a minimum score of 5.5 in each category.
- Two reference letters from instructors or supervisors most familiar with the academic or professional work deemed most relevant to the applicant’s demonstrated interest in Global Surgery
- A demonstrated interest in Global Surgery through the applicant’s Curriculum Vitae, background, education or experiences, and/or discussed in the Statement of Intent

## 2.2 ENROLMENT PLANNING & ALLOCATIONS

Enrolment will begin in September 2025. Courses will be offered in the Fall and Winter terms. GLOB SURG 701 “Foundations of Global Surgery” is the pre-requisite for all other courses in the Graduate Diploma but may be taken concurrently with GLOB SURG 703.

Table 2. Timing of Course Offerings

	Course offered			
	701	702	703	704
<b>Fall</b>	x		x	
<b>Winter</b>		x		x

Table 3. Minimum Projected Enrolment Numbers

Annual Total Headcount	2025/26	2026/27	2027/28	2028/29	2029/30
<b>Year 1</b>	6	10	15	17	21
<b>Year 2</b>		6	10	14	16
<b>Total</b>	6	16	25	31	37

## 2.3 ALTERNATIVE REQUIREMENTS

The following would be beneficial but not required of applicants:

- Prior work in one’s own field in Global Health or Global Surgery or resource-limited settings
- Previous research work in Global Health or Global Surgery



- Previous administrative, policy, or advocacy work in a Global Health or Global Surgery organization, network, or non-governmental organization

## 2.4 ACCESSIBLE & EQUITABLE ADMISSIONS PROCESSES & PRACTICES

The application process will be fully online to circumvent the need to access hardcopy or postal resources. Given the inherent interdisciplinary nature of the field of Global Surgery, the course curriculum does not depend on a student's background in any health/surgery or global studies/development profession and there are no explicit or specific degree requirements with respect to field of study.

The Admissions Committee will consist of a diverse interdisciplinary array of representatives with expertise in Global Surgery. Candidates will be assessed based on the three admission requirements outlined in Section 2.1: Four-year honours Bachelor's degree or equivalent with B+ or 75-79% average, evidence of English proficiency, and a demonstrated interest in Global Surgery through the applicant's Curriculum Vitae and Statement of Intent. Offers of admission will be granted to all those that meet these criteria.

Presently, funding sources to support the provision of bursaries are being sought to improve access to graduate academic Global Surgery training for those requiring financial assistance.

## 3. STRUCTURE

### 3.1 ADMINISTRATIVE, GOVERNANCE, & COMMUNICATION

The coordination of the Graduate Diploma in Global Surgery falls under the purview of the Global Health Program's administrative unit. This unit operates under the guidance of the Educational Director of the Global Health Program. The Educational Director holds a dual reporting structure, answering to both the Associate Vice President of Global Health and the Vice Dean of Graduate Studies. Course Requirements: Students pursuing the Graduate Diploma in Global Surgery must successfully complete four 3.0-unit online courses.

### 3.2 STRUCTURE & REGULATION

GLOB SURG 701: Fundamentals of Global Surgery

GLOB SURG 702: Contemporary Issues in Global Surgery

GLOB SURG 703: Program Planning, Monitoring & Evaluation in Global Surgery

GLOB SURG 704: Special Population Considerations & Patient Perspectives in Global Surgery

### 3.3 GRADUATE PROGRAMS – PROGRAM LENGTH

The Graduate Diploma program encompasses four graduate-level courses. The program completion duration ranges from 8 months to 20 months (Table 4). Students are obligated to pay a per-course fee consistent with the course-load they have selected for that term.

Table 4. Program Length Options

8 months:

Fall	2 courses
Winter	2 courses

20 months:

Fall	1 course
Winter	1 course
Summer	Scheduled Break
Fall	1 course
Winter	1 course

## 4. CURRICULUM & TEACHING

### 4.1 PROGRAM CONTENT

The McMaster University Graduate Diploma in Global Surgery addresses the growing need for professional development in Global Surgical Care. The course offerings are designed to give students the core tenets of Global surgical care and a solid foundation to apply to future work towards its advancement. As the courses are held online, students will be exposed to a multidisciplinary global community from both low- and middle-income (LMIC) and high income (HIC) countries. Curriculum will reflect the unique challenges to surgical care delivery for marginalized populations, remote/rural settings, and conflict areas. The target audience will include health and allied health professionals as well as extra-healthcare professions including journalism, policy, engineering, health administration, and public health.

#### COURSE DESCRIPTION, CONTENT, & OUTCOMES

##### *Fundamentals of Global Surgery (GLOB SURG 701)*

This is an introductory course to Global surgery. The course highlights the introduction and indicators of Global Surgery as a humanitarian need and details the burden of surgical care need and its context. The course covers surgical workforce and surgical systems as it relates to the global burden of surgical disease and examines unmet need for surgical care globally. The course will be held in an online format

with weekly e-modules and discussion posts. A midterm and final paper will be required based on the student's selection of one of 2-3 prompts.

Indicative Content	Learning Outcomes
<p><b>1.0 Introduction to Global Surgery</b></p> <ul style="list-style-type: none"> <li>• History, MDGs, SDGs</li> <li>• Lancet Commission on Global Surgery (LCoGS) key findings and indicators</li> <li>• Three Delays Model; extrapolating from maternal mortality</li> </ul>	<ul style="list-style-type: none"> <li>• Understand Surgery and what is necessary and required for surgical procedures and care of the surgical patient.</li> <li>• Understand the definition of Global Surgery, its relationship to Global Health, and its applicability to the Sustainable Development Goals (SDGs?)</li> <li>• Identify the key findings and indicators of the Lancet Commission on Global Surgery (LCoGS)</li> <li>• Understand the role of historical frameworks (eg., Three Delays Model) and their extrapolation to Global Surgery</li> <li>• Understand LCoGS' "10 Needs for the Provision of Safe Surgical &amp; Anesthesia Care"</li> </ul>
<p><b>2.0 Global Burden of Surgical Disease</b></p> <ul style="list-style-type: none"> <li>• Geography: LMICs - urban vs rural, rural/remote HICs</li> <li>• Bellwether Procedures</li> <li>• Life-saving vs disability-averting care</li> <li>• Cancer care disparities and the inextricable links with Global Surgery</li> <li>• Trauma care, road traffic safety</li> <li>• Burden of Ob/Gyn care including maternal morbidity &amp; mortality</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the global surgical burden of disease and the disparities between and within countries across income levels</li> <li>• Understand surgical care's role in saving lives and averting disability</li> <li>• Understand the calculations for burden of surgical disease: Disability-Adjusted Life Years (DALYs) and Quality-Adjusted Life Years (QALYs)</li> <li>• Understand the role of Bellwether Procedures</li> <li>• Identify the role of surgical care in addressing the global cancer burden</li> <li>• Identify the role of surgical care in addressing the burden of traumatic conditions</li> <li>• Identify the role of surgical care in addressing maternal mortality and morbidity globally</li> <li>• Understand the burden of disease at population, regional, community, and individual levels</li> </ul>

<p><b>3.0 Surgical Workforce</b></p> <ul style="list-style-type: none"> <li>• Global distribution of SAOs (surgeons, anesthesiologists, obstetricians)</li> <li>• Surgical workforce development</li> <li>• Task-shifting / sharing in LMICs &amp; HICs</li> <li>• “Brain-drain”</li> </ul>	<ul style="list-style-type: none"> <li>• Familiarity with the global distribution of SAOs and their correlation with LCoGS findings</li> <li>• Describe approaches to sustainable workforce development and capacity building</li> <li>• Debate the advantages and disadvantages of task-shifting / sharing in a variety of settings</li> <li>• Discuss the pull/push factors contributing to global redistribution of the surgical workforce</li> </ul>
<p><b>4.0 Surgical Care Systems</b></p> <ul style="list-style-type: none"> <li>• Surgical infrastructure</li> <li>• NSOAPs, Policy</li> <li>• Health economics, payment models</li> <li>• Case studies</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze the multimodal components and factors influencing surgical infrastructure availability, accessibility, and sustainability</li> <li>• Understand the role of NSOAPs and policy considerations in enhancing surgical care systems</li> <li>• Real-world examples of surgical care systems issues applying the above principles and health economics in LMIC &amp; HIC settings</li> </ul>

*Contemporary Issues in Global Surgery (GLOB SURG 702)*

This course focuses on several contemporary issues of Global Surgery including Ethics, Gender Equality, Planetary Health, and Humanitarian Disasters. The course highlights ethical dilemmas and approaches to surgical care provision and distribution, the effect of and proposed strategies to improve gender disproportion in the surgical care workforce and leadership, the reciprocal impact of climate change and surgical care, and the burden of surgical disease and the role of surgical care systems in humanitarian disasters. The course will be held in an online format with weekly e-modules, weekly discussion posts, and an online debate. A midterm and final paper will be required based on the student’s selection of one of 2-3 prompts.

Indicative Content	Learning Outcomes
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<p><b>1.0 Ethics in Global Surgery</b></p> <ul style="list-style-type: none"> <li>• Ethics of surgical care delivery partnerships</li> <li>• Ethics of academic/educational partnerships</li> <li>• Ethics of research in Global Surgery</li> <li>• Ethics of equipment donation</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the ethical dilemmas in the provision of surgical care</li> <li>• Understand ethical approaches to and dynamics of Global Surgery partnerships, education, research, and equipment donation</li> <li>• Familiarity with the advantages and disadvantages of various platforms of service delivery and how these factor into ethical approaches to surgical care</li> <li>• Familiarity with code(s) of ethics at local, national, and international levels that provide a framework for ethical surgical care</li> <li>• Understand objectives and outputs of ethical pre-departure training for HIC actors</li> <li>• Develop strategies for individual and institutional ethical engagement in Global Surgery rotations and partnerships</li> </ul>
<p><b>2.0 Workforce Gender Inequity</b></p> <ul style="list-style-type: none"> <li>• Gender disparities in the global healthcare workforce vs leadership</li> <li>• Intersectionality and inequity in Global Health/Surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the inverse proportions of gender representation in the general global healthcare workforce versus in global health leadership</li> <li>• Understand the unique gender challenges facing the surgical care workforce in LMICs</li> <li>• Develop gender-responsive strategies to addressing these challenges globally</li> </ul>
<p><b>3.0 Planetary Health</b></p> <ul style="list-style-type: none"> <li>• Impacts of climate change on surgical care and patient outcomes</li> <li>• Impacts of surgical care systems on planetary health</li> <li>• Challenges of balancing resource realities with planetary health concerns from a local provider's perspective</li> <li>• Associations between planetary health and the development of / response to humanitarian disasters</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the impact of surgical care on climate change</li> <li>• Understand the impact of climate change on surgical care</li> <li>• Understand that climate change disproportionately burdens LMIC populations and vulnerable communities in HICs</li> <li>• Understand the relationship between climate change and humanitarian disasters</li> </ul>

<p><b>4.0 Humanitarian Disasters</b></p> <ul style="list-style-type: none"> <li>• Burden of surgical disease from the spectrum of humanitarian disasters (armed conflict, climate, complex emergencies)</li> <li>• The role of surgical care systems in humanitarian disaster response</li> </ul>	<ul style="list-style-type: none"> <li>• Using case studies, understand and critique the complex coordinated response required for humanitarian disasters</li> <li>• Develop an understanding for the phases of humanitarian disaster response</li> <li>• Debate and critique the role of advocacy pertaining to human rights atrocities or violations during humanitarian disaster response</li> </ul>
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*Program Planning, Monitoring, & Evaluation in Global Surgery (GLOB SURG 703)*

This course is an introduction to program planning, monitoring, and evaluation in Global Surgery. The course will highlight policies relating to planning in the context of Global Surgery and describe evaluation approaches and their integration into program planning. The student will apply a Logic Model, Risk Matrix, and GANTT chart in their planning and evaluation of a mock surgical care program. The course will be held in an online format with weekly e-modules and weekly discussion posts. Evaluation will include 3 projects of a 1) Logic Model, 2) Program Proposal Brief, and 3) Mock Design of a Program Evaluation.

Indicative Content	Learning Outcomes
<p><b>1.0 Introduction to Program Planning &amp; Evaluation</b></p> <ul style="list-style-type: none"> <li>• History and purpose</li> <li>• Global Surgery &amp; International Development</li> <li>• Programming planning &amp; evaluation cycle</li> <li>• Evaluation approaches</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the historical background of program planning and evaluation</li> <li>• Familiarity with policies related to program planning, monitoring, and evaluation in the context of Global Surgery and International Development</li> <li>• Understand theory of change and results-based management</li> <li>• Understand the program planning and evaluation cycle</li> <li>• Familiarity with evaluation approaches and their purposes</li> </ul>
<p><b>2.0 Program Planning: Identifying the Problem and Goal</b></p> <ul style="list-style-type: none"> <li>• Stakeholder engagement</li> <li>• Defining the problem</li> <li>• Situational assessment</li> <li>• Ultimate goal &amp; beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the Logic Model in describing the program's theory of change.</li> <li>• Understand how to identify and engage stakeholders in the program planning process</li> <li>• Define and describe the problem/issue to be addressed</li> <li>• Identify factors contributing to the issue (positive and negative)</li> </ul>

	<ul style="list-style-type: none"> <li>• Identify what is goal to be achieved and who will be benefited/scope of the program</li> </ul>
<p><b>3.0 Program Planning: Program Design and Logic Model</b></p> <ul style="list-style-type: none"> <li>• Logic Model</li> <li>• Outcomes &amp; key indicators</li> <li>• Inputs &amp; outputs</li> <li>• Assumptions, external and influencing Factors</li> <li>• Risk management</li> <li>• Budget &amp; timelines</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how to describe the program’s ultimate goal, and identify outcomes/key indicators and means of measurement</li> <li>• Identify program inputs and outputs</li> <li>• Identify assumptions and factors that may influence program outcomes</li> <li>• Apply a risk matrix and register to assess and manage risk in program planning</li> <li>• Develop a program budget</li> <li>• Apply the GANTT chart in developing a program timeline</li> </ul>
<p><b>4.0 Program Evaluation &amp; Special Considerations</b></p> <ul style="list-style-type: none"> <li>• Defining the evaluation question</li> <li>• Identifying the evaluation type</li> <li>• Methods of program evaluation</li> <li>• Developing an evaluation plan</li> <li>• Ethics &amp; legal considerations in program planning &amp; evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Identify what question the evaluation is meant to answer</li> <li>• Describe the different types of evaluations (formative, process, outcome, economic &amp; impact) and how to use them.</li> <li>• Describe different methods of program evaluation</li> <li>• Understand how to build evaluation into program design and planning</li> <li>• Describe ethical and legal implications in program planning and evaluation</li> </ul>

*Special Population Considerations & Patient Perspectives in Global Surgery (GLOB SURG 704)*

This course introduces students to surgical care in rural/remote and urban settings in special populations. Specific context and study will focus on provision for Indigenous peoples, populations experiencing homelessness, and considerations pertaining to newcomer, immigrant, and refugee care. Teaching and discussion will compare and contrast surgical care between low- and middle-income (LMIC) and high-income countries (HIC). The course will be held in an online format with weekly e-modules and weekly discussion posts, as well as guest speakers who are patients or have lived experience in the subject matter. A midterm and final paper will be based on the student’s selection of one of 2-3 prompts.

Indicative Content	Learning Outcomes
<p><b>1.0 Surgical care in rural/remote HICs and Indigenous populations</b></p> <ul style="list-style-type: none"> <li>• Canada</li> <li>• Australia</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize barriers to care specific to rural and remote populations</li> <li>• Understand special and historical considerations for determinants of health for the Indigenous patient</li> <li>• Describe specific patient and infrastructure considerations unique to rural/remote and Indigenous populations</li> </ul>
<p><b>2.0 Surgical care for special urban populations</b></p> <ul style="list-style-type: none"> <li>• The unhoused</li> <li>• Newcomer, immigrant, refugee</li> <li>• Urban Indigenous communities</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the determinants of health for the unhoused patient</li> <li>• Understand the determinants of health for the newcomer, immigrant and refugee patient</li> <li>• Describe infrastructure considerations in surgical care specific to urban populations</li> </ul>
<p><b>3.0 Comparison of global surgical care in LMICs vs HICs</b></p>	<ul style="list-style-type: none"> <li>• Recognize the barriers to infrastructure, capacity building, workforce recruitment/retention, and patient access to surgical care across LMIC and HIC settings</li> <li>• Compare/contrast intra- and inter-country disparities in global surgical care</li> </ul>

## 4.2 PROGRAM INNOVATION

The McMaster University Graduate Diploma in Global Surgery is the only program of its kind available in Ontario. Its online and asynchronous mode of delivery is intentional in an effort to improve academic equity by reducing barriers and facilitating access to academic Global Surgery for all, regardless of profession, career stage, or country of origin/residence. Such flexibility permits learners to integrate academic pursuits amidst busy personal and professional commitments, for which a traditional in-person and synchronous format may otherwise preclude such a course of study.

The Graduate Diploma’s weekly discussion forums, on which students must post well-crafted and appropriately referenced responses to predetermined prompts, provides them with direct access to faculty who are leaders in the field and possess a wealth of clinical, academic, policy, or advocacy experience. This unique first-hand exposure to a bottomless cornucopia of knowledge and insight is facilitated by eliminating logistical barriers of travel, visas, and lost income opportunity costs. Moreover, this format facilitates dynamic and rich discussions among an array of interdisciplinary professional classmates from a variety of contexts in LMICs and HICs. Such an opportunity for “cross-pollination”



would be near-impossible for such a complement of individuals in the absence of this mode of delivery. This format also permits real-world critique, analysis, and integration of core academic Global Surgery fundamentals through their real-time application to current events as they happen (eg., humanitarian disasters and armed conflict in the setting of stretched surgical care systems).

Therefore, the proposed Graduate Diploma delivers Global Surgery graduate education through an innovative approach that not only brings the content to the learner, but also unites seemingly disparate areas of expertise together in a joint quest to strengthen surgical care systems for the world's most vulnerable populations.

#### 4.3 MODES OF DELIVERY

Courses will be offered online via Avenue to Learn, McMaster's Learning Management System, whereby an e-module will be completed each week. To facilitate asynchronous course delivery, there will be weekly readings in the form of published articles and multimedia accessible publicly or through the McMaster University library website. This may include online publications and peer-reviewed articles, case examples, videos, and websites. Closed captioning and/or voice-to-text options will be incorporated to facilitate accessibility and inclusion of all students.

Knowledge consolidation and analyses will be driven through weekly discussion posts in response to pre-set prompts which will be pertinent to the week's readings. These discussion posts will improve the student experience through the creation of an online community where students can ask questions, share experiences, express opinions, and respectfully debate and critique ideas among classmates and faculty alike. Online discussion posts and midterm and final assignments will support the students in meeting their Degree Level Expectations, and solidify that they have met the intended Program Learning Outcomes.

No physical requirements other than an electronic device with Internet access will be required. In order to accommodate all students regardless of Internet capacity, deadlines will be communicated in advance and allowances will be made in the event of technological issues.

The Graduate Diploma's online format is an example of scaling McMaster's Digital Learning Strategic Framework<sup>xvii</sup> whereby digital learning is harnessed to build bridges across geographic and temporal chasms<sup>xviii</sup>. In doing so, this Graduate Diploma will improve academic equity by accessing student populations who may otherwise be unable to partake in in-person graduate education. This approach overcomes time zone barriers and permits student participation from their place of residence. It will preclude students from needing to relocate, leave their families, fund travel, or secure visas to enter Canada. In the same vein, students may be enrolled while continuing to work or study which will also prevent the inadvertent net loss of providers from low-resource settings.

#### 4.4 EXPERIENTIAL LEARNING

GLOB SURG 702 "Contemporary Issues in Global Surgery" features an online debate during which students will need to defend a pre-assigned stance on a current issue in Global Surgery. They will be expected to utilize appropriate references and statistics from the Global Surgery literature to corroborate their arguments. The intention is to provide an opportunity to practice effective

communication strategies while engaging in respectful critique in an interdisciplinary setting, which simulates the skills required for writing an Op-Ed or participating in an academic Global Surgery panel.

There is otherwise no experiential learning offered within the proposed Graduate Diploma.

#### 4.5 ACCESSIBILITY & INCLUSION

The Graduate Diploma's online and asynchronous delivery format is an example of scaling McMaster's Digital Learning Strategic Framework<sup>17</sup> whereby digital learning is harnessed to build bridges across geographic and temporal chasms<sup>18</sup>. In doing so, this Graduate Diploma will improve academic equity by accessing student populations who may otherwise be unable to partake in in-person graduate education.

For example, this approach overcomes time zone barriers and permits student participation from their place of residence. It will preclude students from needing to relocate, leave their families, fund travel, or secure visas to enter Canada. In the same vein, students may be enrolled while continuing to work or study which will also prevent the inadvertent net loss of providers from low-resource settings. Such an innovative approach with inherent flexibility will be attractive to an interdisciplinary array of trainees and professionals from low- and middle-income (LMIC) as well as high-income (HIC) countries. Moreover, our program seeks to include participants regardless of financial means and scholarships for learners in need are actively being investigated.

Other mitigation strategies to foster an accessible, inclusive, and equitable learning environment include the provision of closed captioning for video resources and text-to-speech capabilities for online e-modules. Although the online asynchronous delivery of the Graduate Diploma circumvents the aforementioned barriers, it is contingent upon the student having reliable access to internet. This potential barrier cannot be easily mitigated at the programmatic level but allowances will be made for those students who experience challenges submitting assignments on time due to information technology issues.

#### 4.6 RESEARCH REQUIREMENTS (IF APPLICABLE)

The program does not contain major research requirements because it is a course-based program.

### 5. ASSESSMENT OF LEARNING

#### 5.1 OVERALL PROGRAM QUALITY

At the end of each course, students will be asked to anonymously rate their faculty on 9 domains:

- Overall rating
- Organization and preparedness
- Expertise in the area
- Enthusiasm for teaching the subject matter
- Clarity of communication
- Success in making learning enjoyable

- Facilitation of discussions
- Availability of faculty
- Constructiveness of feedback and guidance

Similarly, students will be asked to anonymously rate the course infrastructure and material delivery on 4 domains:

- Overall rating
- Availability & accessibility of learning materials
- Utility of learning resources and discussion forum
- Utility of midterm and final assignments

Each domain will be scored on a 7-point scale ranging from 1 (poor) to 7 (excellent).

Students will also be able to provide open-ended feedback comments. All feedback will be solicited via a web-based survey tool like Google Forms or SurveyMonkey. This feedback will be gathered at the conclusion of each course. The McMaster Global Health office will collate the feedback and provide individual summaries to Faculty and Program Leadership at the end of each academic year (end of Spring Term).

At the conclusion of each academic year (end of Spring Term), the Program Director, Faculty, and the Global Surgery Advisory Group will gather to review this feedback data to monitor continuous improvement. Based on this data and the discussions at this meeting, a collective decision will be made between the Program Director, Faculty, and the Global Surgery Advisory Group as to the appropriate actions to take regarding necessary amendments to the program for ongoing improvement. The feedback, minutes from the meeting, and the decisions made regarding action items will be documented in an annual report for the Graduate Diploma in Global Surgery.

## 5.2 METHODS FOR ASSESSING STUDENTS

Student assessment will be based on longitudinal and discrete submissions in the form of weekly discussion posts and midterm and final assignments, respectively.

The weekly discussion posts will assess the student's ability to synthesize core academic material (e.g., landmark papers, textbook chapters) and its application to weekly prompts. Additionally, the discussion forum will assess the student's ability to engage in respectful dialogue and critical thinking with their peers and faculty. This simulates the type of interdisciplinary communication critical to Global Surgery efforts across all domains; service delivery, education and capacity building, research, policy, advocacy, etc.

Midterm and final assignments will assess the student's ability to formulate and organize thoughts into high-quality academic writing while utilizing peer-reviewed and other literature to corroborate arguments. Their selection of one of 2-3 prompts will permit the tailoring of these assignments to their own area(s) of interest while still facilitating the evaluation of critical thinking and persuasive writing to apply core knowledge to real-world scenarios in surgical care.

The submission and evaluation of all assessments online will reduce scheduling, geographic, financial, and career stage barriers to student learning by allowing all components of the program to be delivered asynchronously.

### 5.3 CURRICULUM MAP

PROGRAM LEARNING OUTCOMES (PLOS)	PROGRAM REQUIREMENTS		
	DEGREE LEVEL EXPECTATIONS	TEACHING ACTIVITIES & LEARNING OUTCOMES	ASSESSMENT EVIDENCE
PLO 1 Gain an understanding of the Global Surgical landscape, the burden of global surgical disease, contributing factors and strategies to address the burden of global surgical disease.	Depth and Breadth of Knowledge  Awareness of Limits of Knowledge	GLOB SURG 701; lectures, group discussion and required reading	Assessment of participation in online discussion forums, mid-term and final papers
PLO 2 Analyze ethical issues in Global Surgery through application of ethical frameworks.	Application of Knowledge	GLOB SURG 702; lectures, online discussions, required readings, and online debate	Assessment of participation in online discussion forums, online debate, and mid-term and final papers
PLO 3 Critically analyze research evidence to understand the intersectionality of global surgery, climate change and Planetary Health.	Research and Scholarship  Awareness of Limits of Knowledge	GLOB SURG 702; lectures, online discussions and required readings	Assessment of mid-term and final papers.
PLO 4 Gain familiarity and apply the principles of program planning, monitoring, and evaluation to global surgical programs.	Application of Knowledge  Autonomy and Professional Capacity	GLOB SURG 703; lectures, design of logical model and program evaluation	Assessment of a program logic model, program proposal, and program evaluation
PLO 5 Understand the global surgical issues experienced amongst diverse groups and special populations and implications for global surgical care.	Depth and Breadth of Knowledge  Application of Knowledge	GLOB SURG 704; lectures, required readings	Assessment of participation in online discussion forums, mid-term and final papers

PLO 6 Develop skills in research synthesis and analysis of complex issues	Research and Scholarship  Awareness of Limits of Knowledge	All Courses; literature search and synthesis	Assessment of participation in online discussion forums, mid-term and final papers
PLO 7 Gain experience working in diverse interprofessional cross-cultural teams	Communication Skills  Autonomy and Professional Capacity	All Courses; online discussions	Participation in online discussion forums.

#### 5.4 DEMONSTRATING STUDENT ACHIEVEMENT

The program defines success as achievement of the eight learning outcomes defined in Section 1.4. Specifically, this will be determined by the successful completion of the four courses for the Graduate Diploma in Global Surgery (GLOB SURG 701, 702, 703, 704). As aforementioned, student assessment within each course (701-704) will be determined via longitudinal and discrete submissions in the form of weekly discussion posts and midterm/final assignments, respectively. This intentional combination of assessments facilitates a comprehensive evaluation of the student including their depth and breadth of knowledge, knowledge application and synthesis, and ability to communicate and collaborate. Specifically, the weekly discussion posts will demonstrate their ability to synthesize core academic material while engaging in critical thinking and dialogue pertaining to historical and real-time case examples. The midterm and final assignments will provide an opportunity to formulate compelling pieces of academic writing to demonstrate knowledge application to real-world scenarios in surgical care. This innovative approach facilitates a broad assessment of the student over a wide range of topics and provides the opportunity to hone skills such as respectful dialogue, critical thinking and analysis, and persuasive writing, which are critical to engaging in all domains of surgical care. When considered in totality, such assessments in all four courses will demonstrate that students have met the seven learning outcomes outlined in Section 1.4.

Overall academic progress will be monitored closely by course faculty who will communicate any concerns with the Program Director and administrator. Should any concerns or extenuating circumstances arise, actions will be taken to remediate and provide opportunities to demonstrate successful acquisition of the learning outcomes.

Administration will collect and disseminate such assessments at the conclusion of each course and at the completion of the program. A Graduate Diploma in Global Surgery would be granted upon successful completion of the program. Similarly, anonymized student assessments of the program will be collected at the conclusion of each course and will be grouped into a minimum data set of three student assessments which are non-contemporaneous to ensure anonymity. This will be fed back to Program Leadership and Faculty at the conclusion of each academic year and will influence and inform the continuous quality improvement of the program.

## 6. RESOURCES

### 6.1 UNDERGRADUATE PROGRAMS

Not applicable as the proposed Graduate Diploma in Global Surgery is at the graduate level.

### 6.2 GRADUATE PROGRAMS

#### 6.2.1 ADMINISTRATIVE, PHYSICAL, & FINANCIAL RESOURCES

Courses in the Graduate Diploma of Global Surgery program will be offered entirely online. Students will be based off-campus. The program will require a Program Director and part-time Administrator to manage and administer the program. This program will utilize existing space for a Program Director and part-time Administrator within the Global Health Office. Therefore, it is not anticipated that additional space or physical resources will be required.

#### 6.2.2 LIBRARY, TECHNOLOGY, & LABORATORY RESOURCES

All students and faculty will require access to McMaster Universities online-based education software programs including Microsoft 365, Avenue to Learn, and online library resources during the program. There are no anticipated physical technology or laboratory resources required for this program.

#### 6.2.3 FACULTY

Core faculty for the program will be primarily drawn from the Global Health Office and Post-Graduate Medical Education departments. Guest lecturers from other McMaster Faculties and Departments, along with faculty from McMaster’s Global Health Consortium, will be invited to contribute their expertise to the interdisciplinary program. International faculty with existing connections to McMaster University faculty may also be invited to give guest lectures and facilitate online discussion.

Table 5. Core Faculty Participation & Qualifications

Faculty Name	Participation	Credentials	Global Surgery Experience
Dr. Esther Chin	701 702	MD, MGSC, FRCSC Obstetrician/Gynecologist  Global Health Lead (McMaster University, Dept of Ob/Gyn)  Assistant Clinical Professor (McMaster University, Dept of Ob/Gyn)  Adjunct Professor	Master of Global Surgical Care (UBC)  Graduate Course Global Surgery Teaching Faculty <ul style="list-style-type: none"> <li>- UBC SURG512 “Global Disability – A Surgical Care Mandate” (Master of Global Surgical Care)</li> <li>- University of Global Health Equity in Rwanda GSE003 “Ethics in Global Surgery” (Master of Global Health Delivery; Global Surgery Option)</li> </ul>

		<p>(UBC, Faculty of Surgery, Branch for Global Surgical Care)</p> <p>Visiting Clinical &amp; Academic Global Surgery Faculty (University of Global Health Equity, Rwanda)</p>	<p>Essential Surgical Skills Curriculum (UBC, Global Surgery Lab)</p> <ul style="list-style-type: none"> <li>- Content Consultant, Ob/Gyn Co-Lead, Lecturer (Aweil, South Sudan)</li> </ul> <p>UBC Graduate Course Academic Advisor</p> <ul style="list-style-type: none"> <li>- SURG560 “Global Surgical Care Field Practicum”</li> </ul> <p>UBC Global Surgery Lab</p> <ul style="list-style-type: none"> <li>- Principal Investigator</li> </ul> <p>Society of Ob/Gyns of Canada &amp; Rwanda Society of Ob/Gyns</p> <ul style="list-style-type: none"> <li>- Rwanda Working Group “Sexual Reproductive Health &amp; Rights Project”</li> </ul> <p>Royal College International Development, Aid, &amp; Collaboration Grant Recipient 2024-2027</p> <ul style="list-style-type: none"> <li>- Mobile Workshops “Building Capacity to Reduce Cesarean-Related Morbidity in Tanzania”</li> </ul> <p>Obstetric Fistula Repair Training (Angola)</p> <p>(see attached Curriculum Vitae)</p>
Mr. David Oldenburger	703	<p>RN, MSc Global Health, PhD(c) McMaster University</p> <p>Coordinator, MacGIObAS McMaster University Global Surgery Collaboration</p>	<p>2015-2017 Program Development and Evaluation on Global Affairs Canada Health Project in West Africa</p> <p>Guest Lecturer, Program Evaluation Course, UBC Masters of Global Surgical Care</p> <p>Tutor, Global Health Foundations, MSc Global Health program, McMaster University</p>
Dr. Brad Petrisor	704	<p>MSc, MD, FRCS Professor, Department of Surgery, McMaster University</p>	<p>Humanitarian responder Haiti with St. Joseph’s International Outreach Program (IOP) since 2010</p> <p>Collaborator Team Broken Earth, Humanitarian responders</p> <p>Faculty with Uganda Sustainable Trauma Orthopaedic Program. A collaborative effort with McMaster University, UBC and Dept. Of</p>

		<p>Orthopaedic Surgery Mulago National Referral Hospital. Makerere University since 2012</p> <p>Faculty, Principles and Practice of research Cuba and Uganda</p> <p>Faculty Pune Trauma Operative Course, India.</p> <p>Multiple trips to Haiti, Uganda, India since 2010 for Education, collaboration and capacity building.</p> <p>Canadian Ukraine Surgical Aid Program (CUSAP) - Orthopaedic trauma surgery and reconstruction for casualties of war.</p> <p>Supervisor, Orthopaedic trauma fellowships Hamilton General Hospital, fellows from South Sudan, Kampala, Uganda, and Arua, Uganda.</p> <p>Member, Canadian Orthopaedic Association Global Surgery</p> <p>Invited speaker Orthopaedic Society of Uganda</p> <p>Invited Lecturer McMaster's Master's of Global Health Program – Global Burden of Surgical Disease.</p> <p>Supervisor, independent study project Master's of Global Health Program.</p> <p>Participated as accreditation reviewer for Royal College International</p> <p>Previously Director of Department of Surgery's Global Surgery office</p> <p>Helped collaborate and organize multiple aid distributions after Beirut disaster in collaboration with Stratford Medical Supply warehouse, St. Catharines Warehouse of Hope, Global Logistics Management and Rotary International</p>
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<p>Dr. Lynda Redwood-Campbell</p>	<p>704</p>	<p>MD, FCFP, DTM&amp;H (London) MPH (Johns Hopkins)</p> <p>Professor, Department of Family Medicine. McMaster University</p> <p>Co-Director, Global Health. Postgraduate Medical Education (PGME) McMaster</p> <p>Chair, International Advisory Council, Besroul Centre for Global Family Medicine</p> <p>Delegate, Canadian Red Cross, Emergency Response Unit, International Operations</p> <p>UNDAC trained (United Nations Disaster Assessment Coordination team)</p>	<p>25 years' experience in the area of international humanitarian disasters. Academic and scholarly work in this area.</p> <p>Hundreds of presentations nationally and internationally in humanitarian response, humanitarian health settings and humanitarian healthcare ethics. Examples of countries worked, Rwanda post genocide, Pakistan post-earthquake, Haiti post-earthquake and with onset of cholera epidemic, Philippines post typhoon Haiyan, Indonesia post tsunami and many more.</p> <p>Developed a partnership collaboration between SKU Indonesia and DFM McMaster University which has formally been in place for almost 10 years.</p> <p>Developed pre-departure modules for residents going on international health electives, PGME 2023-4</p>
<p>Dr. Caitlin VanDeCappelle</p>	<p>701 702</p>	<p>MD, FRCPC, GCGSC Anesthesiologist, Hamilton Health Sciences</p> <p>Assistant Professor (McMaster University, Dept of Anesthesia)</p> <p>Co-Director, Post Graduate Medical Education Global Health Committee</p> <p>Co-Director, Post Graduate Medical Education MacGlobal Program</p>	<p>Executive, MacGLOBAS (McMaster University Global Surgery Collaboration)</p> <p>Essential Surgical Skills Curriculum (UBC, Global Surgery Lab)</p> <ul style="list-style-type: none"> <li>- Content Consultant, Anesthesia Lead, Lecturer (Aweil, South Sudan)</li> </ul> <p>Facilitator, PGME International electives post-return quarterly group Debrief</p>

Table 6. Proposed Core Faculty for Graduate Diploma in Global Surgery Courses

Course	Core Faculty
<b>GLOB SURG 701 – Fundamentals of Global Surgery</b>	Esther Chin & Caitlin VanDeCappelle,
<b>GLOB SURG 702 – Contemporary Issues in Global Surgery</b>	Caitlin VanDeCappelle & Esther Chin
<b>GLOB SURG 703 – Program Planning and Evaluation in Global Surgery</b>	David Oldenburger
<b>GLOB SURG 704 – Special Populations &amp; Patient Perspectives in Global Surgery</b>	Brad Petrisor & Lynda Redwood-Campbell

#### 6.2.4 STUDENT FINANCIAL SUPPORT

Presently, funding sources to support the provision of bursaries are being sought to improve access to graduate academic Global Surgery training for those requiring financial assistance.

#### 6.2.5 FACULTY RESEARCH FUNDING

Although the Graduate Diploma in Global Surgery is not research-oriented, please see the table below for Core Faculty Research Funding. Please see the attached CVs for Dr. Chin and Dr. Redwood-Campbell for further details pertaining to record of research or scholarship in the field.

Table 7. Core Faculty Research Funding

<b>Operating Research Funding by Source and Year</b>				
	<b>Source</b>			
<b>Year <sup>1</sup></b>	<b>Granting Councils <sup>2</sup></b>	<b>Other Peer Adjudicated <sup>3</sup></b>	<b>Contracts</b>	<b>Others <sup>4</sup></b>
<b>2024-2027</b>		Royal College International Development, Aid, & Collaboration Grant (\$90,000) - “Building Capacity to Reduce Cesarean-Related Morbidity in Tanzania” (Dr. Esther Chin)		
<b>2021-present</b>		Developing primary care physician’s competency in multi-disaster preparedness in Hamilton, Canada; Learning from the COVID pandemic experience. A phenomenology study (\$5000) – (Dr. Lynda Redwood-Campbell)		
<b>2018-present</b>		Collaboration for research of emergency response in international and domestic settings, Grant, Canadian Red Cross (\$42,490.00) - (Dr. Lynda Redwood-Campbell)		
<b>Totals</b>		\$137,490		

1. Year may be academic year or calendar year, as appropriate for the institution [specify].
2. Do not include equipment grants, conference grants, or grants allocated by the university such as SSHRC minor grants in this column.
3. Explain source and type in footnote.
4. University allocated grants (such as SSHRC minor grants).

### 6.2.6 SUPERVISION

Students will not have a designated supervisor during the program. However, the Program Director will monitor students' progress and address any academic concerns with program faculty. The Core Faculty's supervisory privileges are detailed in Table 8.

Table 8. Core Faculty Supervisory Privileges

Faculty Members by Field						
Faculty Name & Category of Appointment	Home Unit <sup>1</sup>	Supervisory Privileges <sup>2</sup>	Fields if applicable			
			<sup>13</sup>	2	3	4
<b>Category 1 <sup>4</sup></b>						
Dr. Brad Petrisor -	Dept of Surgery	Masters PhD				
Dr. Lynda Redwood-Campbell	Dept of Family Medicine	Masters				
<b>Category 2</b>						
Dr. Esther Chin – Assistant Clinical Professor Adjunct	Dept of Ob/Gyn	Masters				
Dr. Caitlin VanDeCappelle – Assistant Professor	Dept of Anesthesia	Masters				
<b>Category 6</b>						
David Oldenburger	Global Health					

<sup>1.</sup> This is the budget unit paying the salary: department, school, research centre or institute, or other.

<sup>2.</sup> Indicate the level of supervisory privileges held by each faculty member: e.g., full, master's only, co-supervision only, etc.,

<sup>3.</sup> Either give the field name or a footnote reference to it.

<sup>4.</sup> List faculty members under the categories suggested, as applicable

**Category 1:** tenured or tenure-track core faculty members whose graduate involvement is exclusively in the graduate program under review. For this purpose the master's and doctoral streams of a program are considered as a single program. Membership in the graduate program, not the home unit, is the defining issue.

Category 2: non-tenure-track core faculty members whose graduate involvement is exclusively in the graduate program under review.

Category 3: tenured or tenure-track core faculty members who are involved in teaching and/or supervision in other graduate program(s) in addition to being a core member of the graduate program under review.

Category 4: non-tenure track core faculty members who are involved in teaching and/or supervision in other graduate program(s) in addition to being a core member of the graduate program under review.

Category 5: other core faculty: this category may include emeritus professors with supervisory privileges and persons appointed from government laboratories or industry as adjunct professors. Please explain who would fall into this category at your institution.

Category 6: non-core faculty who participate in the teaching of graduate courses.

Table 9. Core Faculty Thesis Supervision History

Completed and Current Numbers of Thesis/Other <sup>1</sup> Supervisions by Faculty Member							
Member	Completed			Current			Other Major Research Paper (Master's Level)
	Master's						
	Ph D	PD F	Master's	Ph D	PD F		
Dr. Esther Chin <sup>2</sup>	0(0)	0(0)	1(0)	0(0)	0(0)	1(0)	
Mr. David Oldenburger	0(0)	0(0)	0(0)	0(0)	0(0)	2	
Dr. Brad Petrisor	2					1	
Dr. Lynda Redwood-Campbell	4					2	
Dr. Caitlin VanDeCappelle	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)

1. If desired, columns (or an additional table) may be added to reflect the supervision of major research papers at the master's level. Do not include supervisory committee activity in this table.
2. Indicate the current number of students being supervised by the faculty members and, in parentheses, the total number of past students that the faculty member has supervised.

## 7. QUALITY & OTHER INDICATORS

### 7.1 ACADEMIC QUALITY OF THE PROGRAM

Each year, the following will be used to document and demonstrate the quality of the program:

- Scholarly and other productivity measures
  - E.g., student publications in peer-reviewed journals pertaining to Global Surgery, student presentations at academic meetings
- Annual assessment of students and alumni activity in Global Surgery in rural/remote HIC settings, LMICs, or with international organizations and NGOs
  - E.g., clinical, educational, research, capacity building, policy, advocacy
- Time from onset to completion of the Graduate Diploma's four courses
- Grades/averages of students enrolled in the Graduate Diploma's four courses
- Formative student assessments and feedback
- Retention rate of students who enter and complete the program
- Student supports
  - E.g., funding for conferences, scholarly work

The above data will be gathered on an annual basis at the conclusion of each academic year by the part-time administrator for the Graduate Diploma. In addition to the student feedback gathered at the end of each course and collated at the end of each academic year (end of Spring Term) detailed in Section 5.1, the above data will be reviewed during a meeting between the Program Director, Faculty, and the Global Surgery Advisory Group to monitor continuous improvement. This meeting will occur at the conclusion of each academic year (end of Spring Term). Based on this data and the discussions at this meeting, a collective decision will be made between the Program Director, Faculty, and the Global Surgery Advisory Group as to the appropriate actions to take regarding necessary amendments to the program for ongoing improvement. The feedback, minutes from the meeting, and the decisions made regarding action items will be documented in an annual report for the Graduate Diploma in Global Surgery.

### 7.2 INTELLECTUAL QUALITY OF THE STUDENT EXPERIENCE

Students will be expected to take responsibility for their own learning and interaction with fellow students and faculty on discussion forums. The faculty will provide constructive feedback to the students on a regular basis regarding the quality and frequency of participation in the online discussion forum and the midterm and final assignments as detailed in Section 5.

Students are expected to submit their own original work which is appropriately referenced using high-quality sources. All submitted work may be formally assessed for plagiarism with programs such as "turnitin.com". Any student using artificial intelligence (e.g., ChatGPT) must clearly cite its use. Students are warned to check and appropriately cite original references. Any academic dishonesty will be navigated as per the policies and procedures of McMaster University.

The faculty will all have appropriate academic credentials, Global Surgery experience, and connections which will enhance students' exposure to real-world applications of the curriculum's core content. The

faculty will oversee both the teaching and grading of student work and no teaching assistants will be utilized. Thus, students will receive direct feedback from the faculty.

The program will reflect the unique and diverse needs of the students who may be at various career stages and located globally. This will be facilitated through online and asynchronous course delivery which permits access to course content provided the student has internet connectivity.

To ensure ongoing improvement for the student experience, program data pertaining to student feedback and the academic quality of the program will be reviewed during an annual meeting between the Program Director, Faculty, and the Global Surgery Advisory Group at the conclusion of each academic year (end of Spring Term), as detailed in Sections 5.1 and 7.1

## References

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<sup>1</sup> Meara J, Leather A, Hagander L, et al. Global Surgery 2030: evidence and solutions for achieving health, welfare, and economic development. *Lancet*. 2015;386:569-624. [https://doi.org/10.1016/S0140-6736\(15\)60160-X](https://doi.org/10.1016/S0140-6736(15)60160-X)

<sup>2</sup> Global Surgery Foundation. Global Surgery. 2024. <https://www.globalsurgeryfoundation.org/why>

<sup>3</sup> Dare AJ et al. Global surgery: defining an emerging global health field. *Lancet*. 2014;384(9961):2245-2247. [https://doi.org/10.1016/S0140-6736\(14\)60237-3](https://doi.org/10.1016/S0140-6736(14)60237-3)

<sup>4</sup> Shrime M, Bickler S, Alkire, et al. Global burden of surgical disease: an estimation from the provider perspective. *Lancet Glob Health*. 2015;3(2):S8-9. [https://doi.org/10.1016/S2214-109X\(14\)70384-5](https://doi.org/10.1016/S2214-109X(14)70384-5)

<sup>5</sup> Price R, Makasa E, Hollands M. World health assembly resolution WHA68.15: “strengthening emergency and essential surgical care and anesthesia as a component of universal health coverage” – addressing the public health gaps arising from lack of safe, affordable, and accessible surgical and anesthetic services. *World J Surg*. 2015;39:2115-2125. <https://doi.org/10.1007/s00268-015-3153-y>

<sup>6</sup> MacQuene T, Bust L, Louw J, Mwandri M, Chu KM. Global surgery is an essential component of global health. *Surgeon*. 2022;20(1):9-15. <https://doi.org/10.1016/j.surge.2021.10.001>

<sup>7</sup> Province of Ontario. 2020-2025 Strategic Mandate Agreement: McMaster University. November 22, 2022. <https://www.ontario.ca/page/2020-2025-strategic-mandate-agreement-mcmaster-university#:~:text=increasing%20trust%20and%20accountability%20through,a%20reduced%20number%20of%20metrics>

<sup>8</sup> McMaster University Daily News. New vision statement for McMaster is “a unifying statement for our community”. 2021. <https://dailynews.mcmaster.ca/articles/new-vision-statement-for-mcmaster-is-a-unifying-statement-for-our-community/>

<sup>9</sup> McMaster University. Current Priorities: Office of the Provost & Vice-President (Academic). <https://provost.mcmaster.ca/office-of-the-provost-2/current-priorities/>

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<sup>10</sup> McMaster University Faculty of Health Sciences. Strategic Planning. 2020. <https://healthsci.mcmaster.ca/about-fhs/dean/strategic-planning/>

<sup>11</sup> Province of Ontario. Labour market report, January 2024. February 27, 2024. <https://www.ontario.ca/page/labour-market-report-january-2024>

<sup>12</sup> University of British Columbia. Graduate Certificate in Global Surgical Care (GCGSC). 2024. <https://globalsurgery.med.ubc.ca/graduate-programs/gcgs/>

<sup>13</sup> University of British Columbia. Master of Global Surgical Care (MGSC). 2024. <https://globalsurgery.med.ubc.ca/graduate-programs/mgsc/>

<sup>14</sup> McGill University. Masters of Science (MSc.) Experimental Surgery (Non-Thesis) (45-credit). 2024. <https://www.mcgill.ca/study/2023-2024/faculties/medicine/graduate/programs/master-science-msc-experimental-surgery-non-thesis>

<sup>15</sup> McMaster University. MSc Global Health 2023-2024 Admission Cycle – Report for Admissions Committee. Fall 2023

<sup>16</sup> Tadesse L, Abdullah NH, Awadalla HM, et al. A global mandate to strengthen emergency, critical, and operative care. *Bull World Health Organ*. 2023;101(4):231-231A. <http://dx.doi.org/10.2471/BLT.23.289916>

<sup>17</sup> McMaster University Office of the Provost & Vice-President (Academic). Digital Learning: Vision & Guiding Principles. 2024. <https://provost.mcmaster.ca/teaching-learning/digital-learning-strategic-framework/digital-learning-vision-guiding-principles/>

<sup>18</sup> McMaster University Daily News. McMaster launches Digital Learning Strategic Framework. May 9, 2023. <https://dailynews.mcmaster.ca/articles/mcmaster-launches-digital-learning-strategic-framework/>



**New Graduate Program or Existing Program Undergoing Major Changes (more than 30%)**

**Details of Resource Implications and Financial Viability**

**Faculty:** Health Sciences

**Program Name:**

Global Surgery Diploma

**A. FINANCIAL SUSTAINABILITY OF PROGRAM**

*Complete New Graduate Program Budget template (appendix A1) which will populate table below:  
In the case of Interdisciplinary programs, also append the Draft MOU between faculties. (Appendix A2)  
In the case of Collaborative programs, also append the Draft MOU between institutions. (Appendix A3)*

REVENUE	2025/26	2026/27	2027/28	2028/29	2029/30
Program Generated Gross Graduate Revenue	\$31,200	\$87,360	\$143,325	\$186,614	\$233,863
MacGlobas contribution	\$18,000	\$0	\$0	\$0	\$0
<b>Total Gross Revenue</b>	<b>\$49,200</b>	<b>\$87,360</b>	<b>\$143,325</b>	<b>\$186,614</b>	<b>\$233,863</b>
University Fund / Research Infrastructure Contribution	\$0	\$0	\$0	\$0	\$0
Total Support Unit Allocations (Indirect Costs)	\$0	\$0	\$0	\$0	\$0
<b>NET REVENUE</b>	<b>\$49,200</b>	<b>\$87,360</b>	<b>\$143,325</b>	<b>\$186,614</b>	<b>\$233,863</b>
Total Teaching Costs	-\$46,190	-\$46,190	-\$46,190	-\$46,190	-\$46,190
Total Admin Salaries & Benefits	-\$26,200	-\$26,986	-\$27,796	-\$28,629	-\$29,488
Total Student Support (From operating)	\$0	-\$8,000	-\$16,000	-\$16,000	-\$24,000
Total Capital/Equipment Costs	\$0	\$0	\$0	\$0	\$0
Total Other Direct Expenses - Supplies/Services/Travel etc	-\$3,700	-\$3,310	-\$3,426	-\$3,547	-\$3,674
Total Share of Faculty's Central Expenses	\$0	\$0	\$0	\$0	\$0
<b>PROGRAM EXPENSES</b>	<b>-\$76,090</b>	<b>-\$84,486</b>	<b>-\$93,411</b>	<b>-\$94,366</b>	<b>-\$103,352</b>

<b>IN-YEAR (Surplus/ Deficit)</b>	<b>-\$26,890</b>	<b>\$2,874</b>	<b>\$49,914</b>	<b>\$92,248</b>	<b>\$130,510</b>
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<b>Total Grad support per FT student (Scholarship, Taship) excluding RA</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
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If the program is showing an ongoing going deficit please indicate whether it is truly incremental to the current faculty financial position. Provide a rationale for proceeding with ongoing negative returns.

**B. NUMBER OF STUDENTS**

	FT	PT	
Intended Steady-state annual intake		21	Year achieved: <input type="text"/>
Intended Steady-state total enrolment		42	Year achieved: <input type="text"/>
Number of International Students included in steady state	0	12.6	

Proposed number of additional students to University at steady state: ( i.e. Are the program students additional (net new) or redistributed from other existing programs within the Faculty or in other Faculties. )

Will there be an impact to enrollments in Programs in other Faculties?  If yes, Please Describe:

Fall	Winter	Summer (May June)	Summer (July-August)
------	--------	----------------------	-------------------------

Annual program units?

During which terms will the program run?	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> 12
Is there a co-op or internship as part of the program?	<input type="checkbox"/> No	Describe: <input type="text"/>			
What percentage of instruction will be online?	<input type="checkbox"/> 100%	What percentage of instruction will be off campus? <input type="text"/>			

If either is greater than zero please provide information:

Courses will be offered online via Avenue to Learn. To allow asynchronous learning, reading will be required for each student via articles and media accessible publicly or through the McMaster University library website. Course topics will be delivered online and may include case examples, online publication and peer-reviewed articles, videos, and websites. Discussion posts will be required weekly, as well as written assignments. Experiential learning will be indirect via case discussion and required/supplemental readings, as well as through the network of student/faculty interaction and course-led discussions. The Diploma would be offered primarily asynchronously and online to overcome time zone barriers, travel and visa barriers, financial barriers, as well as the inadvertent net loss of providers from low-resource settings. Scholarships for learners in need are actively being investigated.

**D1. PROPOSED TUITION FEE**

reference: [http://www.mcmaster.ca/bms/student/SAC\\_fees\\_grad.html](http://www.mcmaster.ca/bms/student/SAC_fees_grad.html)

Is approval being sought for a Ministry-funded Program?  No      Do Standard Tuition rates apply ? (If No, specify fees below)  No

**Proposed Tuition Fee:**

	Domestic		International	
	Full Time	Part Time	Full Time	Part Time
Per Year :				
Per Term (if applicable):				
Per Course (if applicable):		\$ 2,000		\$ 4,000

Rational for proposed fees (describe or append results of market assessment) and describe how they adhere to MTCU policy if seeking ministry funding :

Tuition Fees for Canadian Graduate Programs in Global Surgery:  
 British Columbia (University of British Columbia) offers a Graduate Certificate in Global Surgical Care; (12 credits = 4 courses, minimum 1 year); \$497.94 per credit (Canadian); \$1165.09 per credit (International); Total = \$5975.28 (Canadian); \$13,981.08 (International).

The proposed Diploma in Global Surgery is distinct from UBC's Graduate Certificate and McGill's Concentration for many reasons. First, the proposed core content is more diverse and offers an introduction to contemporary issues in the field, beyond that of the burden of disease. As a result, graduates will be cognizant of the current landscape of Global Surgery and prepared to effectively engage and navigate these realities. Second, the proposed Diploma is in keeping with the classic definition of Global Surgery, where the field involves not only the traditional health and allied healthcare professions, but also extra-healthcare disciplines. As such, the target demographic includes clinicians alongside other professions such as engineering, journalism, business, law, and policy. Such a diverse student body will facilitate cross-pollination of ideas which transcend professional background and career trajectory. In the same vein, the core and guest faculty will consist of a multidisciplinary array of professionals, many of whom are faculty within McMaster's Global Health Office and the MSc in Global Health. In bringing together clinical and extra-healthcare expertise, this approach will harness synergies to address one of the most pressing challenges facing the world's most vulnerable.

Will regular Mandatory Supplementary Fees apply?      Full Time  No      Part Time  No      Modified only  No

If no, please contact [Dean of Grad Studies](#) for guidance and provide resulting proposed applicable fees and rationale:

Are there other mandatory costs for students? (Coop/Internship fees, supplies, books, uniform, equipment, field trips, professional exam fees, etc?)  No      Describe & Approximate amounts:

**EXTERNAL RESOURCES:** donations, special grants, research overhead, endowment funds, Space, etc.

Please provide information about any external funds or resources that will be available to the program.

	Onetime	Ongoing	Value \$	Details
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Funding sources to support the provision of bursaries are being sought to improve access to graduate academic Global Surgery training for those requiring financial assistance					We included progressively increasing amounts in our proposed budget (Row 268) from Year 2 (\$8,000) thru Year 5 (\$24,000).
MacGlobas contribution	x		\$	18,000	We included \$18,000 from MacGlobas for Year 1 in Appendix A1 (row 192). MacGlobas anticipates being able to provide support of \$18-20K in Year 1, so \$18K was entered to be conservative. Additionally, they anticipate being able to contribute \$40

**F. FACULTY RESOURCES** - Please append evidence of endorsement from other faculties affected if necessary.

If courses are also being taught in other faculties, please list Faculty: **N/A** Faculty: **N/A** Faculty: **N/A**

Incremental FTEs required:	Health Sciences	N/A	N/A	N/A	Comments
Faculty - Tenure Track					
Faculty - Sessional and CLAs					
Staff					
Teaching Assistants					
Additional Non-salary costs in other Faculties					

Increases in FT faculty are for modeling purposes only and does not imply approval to hire. Normal approval processes apply.

**G. OTHER RESOURCE IMPLICATIONS:**

Unless otherwise defined in the categories below, please use these descriptions to define impact:

- No Impact:** Can be dealt with as part of normal, daily operations. No budgetary or resource impact.
- Minor:** Can be dealt with in a mutually agreed timeframe using existing personnel. Resources pre-approved or readily available. No disruption to other approved work priorities.
- Major:** Must be scheduled as a project (not able to deal with as part of regular operations). Budget not approved or readily available; source of funding to be determined. May require external resources. May require reprioritization of previously approved tasks.

**1. PHYSICAL FACILITIES** - Please contact [Coordinator, Design and Space Management x23898](#) for assistance in determining additional resource costs if needed.

Please indicate the likely space resource implications of the proposal	Impact	New Sq Ft Required	Approx Existing Sq Ft required	Comments (include location and for new space, plans to fund and acquire space)	If major new central budget req'd, estimate \$
Faculty space- Offices,Labs,seminar rooms, student space, etc	Minor	-	-		
Other space (excluding registrar controlled classrooms)	None				

Facilities  
Facilities

**2. TECHNOLOGY RESOURCES** - Please contact [UTS Director, Technology x21888](#) for assistance in determining impact if needed.

Please indicate the likely impact on central technology resources for the proposal	Impact	Are additional resources required to support this program? If so, please list.	If Major, estimate \$
UTS Computer Labs and Software	Minor		
Network/Internet/Cloud services access & usage	Minor		
Audio-Visual / Telecommunications	Minor		
Wireless Connectivity	Minor		
Other (Please specify)	Minor		

UTS  
UTS  
UTS  
UTS  
UTS

**3. LIBRARY SERVICES** - Please contact [Associate University Librarian, Collections x26557](#) for assistance in determining impact if needed.

Please indicate the likely Library resource implications of the proposal	Impact	Are additional resources required to support this program? If so, please list.	If Major, estimate \$
Staffing (Add'l service desk staff, add'l librarians, new staff with skills/knowledge not currently present)	None		
Collections, One Time Purchases (books, ebooks, purchased online resources)	Minor		
Collections, Ongoing Subscriptions/licenses (print or online journals)	Minor		

Libraries  
Libraries  
Libraries

06  
06  
06  
06  
06

Technology and Computing (new or add'l hardware/software, increased digital storage capacity)	None		Libraries
Library Spaces (study space, new or specialized user or collection spaces)	None		Libraries
Other (Please specify)	None		Libraries

**4. OFFICE OF THE UNIVERSITY REGISTRAR** - Please contact the Registrar for assistance in determining impact if needed.

Please indicate the likely resource implications of the proposal	Impact (Select)	Support required	Area Responsible	If Major, estimate \$
Admissions/Recruitment	Minor	Recruiting and Admissions aligned with current 101 processes	SGS	
Student Record Support (maintaining records, transcripts, grades, student card, etc)	Minor	Standard services for graduate program		
Class Scheduling Services	Minor	Follows existing timelines/processes		
Classrooms	None	Scheduled into Faculty controlled classrooms or only summer term or off campus		

**5. STUDENT SUPPORT** - Please contact Assistant Dean, Student Services for assistance in determining impact if needed.

Please indicate any other possible resource impacts	Impact	Please Describe any impacts on the support areas	If Major, estimate \$
Student Services - International Student support	Minor		
Student Services - Athletics & Rec, Health/Counselling, Career	Minor		
Residences	None		
Grad Scholarships/Bursaries*	Minor	\$ - Avg. Annual Draw on Scholarship pool	\$ -

\*If you are anticipating OSAP funding for these students please contact SFAS to provide additional information to activate approval from MTCU

**6. MIETL** - Please contact Educational Consultant for assistance in determining impact if needed.

Please indicate any other possible resource impacts	Impact	Please Describe any impacts on the support areas	If Major, estimate \$
Re/Development of blended or online courses	Minor		
Learning Management System (Avenue to Learn)	Minor		
Training and development for TAs or faculty	Minor		
Research on teaching and learning initiatives	Minor		
Other (Please specify)	Minor		

**7. OTHER**

Please indicate any other possible resource impacts	Impact	Please Describe any impacts on the support areas	If Major, estimate \$
Financial Services	Minor		
Human Resources	Minor		
Advancement	Minor		
Research Services Office	Minor		
Other (Please specify)	None		

Please provide names below and check box to verify that approval has been obtained by each:

Department Chair/ Area Director _____	<input type="checkbox"/>
Faculty Dean or Director of Administration _____	<input type="checkbox"/>
Associate Vice-President , Finance & Planning (Academic) _____	<input type="checkbox"/>
Submitter _____	<input type="checkbox"/>

To : University Planning Committee

From : Christina Bryce  
Assistant Graduate Secretary

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At its meeting on October 22<sup>nd</sup>, Graduate Council approved the proposed new Non-Academic Microcredentials in Health Technology Assessments.

Graduate Council now recommends that the University Planning Committee approve the establishment of the new Non-Academic Microcredentials in Health Technology Assessments as outlined in the attachment.

Attachment

# McMaster University



**NEW PROPOSAL  
Non-Academic  
Microcredentials in Health  
Technology Assessment**

**May 17, 2024**

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## 1 GENERAL INFORMATION

Name of (Proposed) Program:	Non-Academic Microcredentials in Health Technology Assessment		
Department(s):	Department of Health Research Methods, Evidence, and Impact		
Faculty:	Health Sciences		
Proposed Start Date:	September 2025		
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## 2 COVER LETTER

The Health Technology Assessment (HTA) graduate program was one of flagship programs in the Department of Health Research Methods, Evidence, and Impact (HEI). As you may be aware, our HTA program has been facing certain challenges in recent years, due in part to faculty retirements and limitations in funding support. However, rather than viewing these challenges as setbacks, we see them as a unique chance to revitalize and strengthen the program by attracting young, talented researchers and redeveloping our research and education portfolio to bring it back to the international stage.

The Non-Academic Microcredentials in HTA will leverage the Department's success in the field by inviting faculty members who have relevant methodological expertises to be involved in the development and delivery of a series of non-academic microcredentials. This will ensure that the content from each microcredential meets the rigorous academic standards that the Department is known for, and that learners have an opportunity to engage with experts in the field. Beyond academic knowledge, a key objective of these microcredentials is to facilitate the development of applied skills. To this end, individuals with professional experience conducting HTA in a real world setting will be consulted during the development and delivery of the microcredentials. This will ensure that the content and assignments are tailored to the needs of our target learners - who are seeking to develop practical skills and the mindset required to conduct HTA. The combination of our faculty's expertise with the perspective and experiences of government and the consulting industry will be invaluable assets as we seek to overcome the current constraints and shape a vibrant and cutting-edging HTA program.

## 3 BACKGROUND

### 3.1 DESCRIPTION

HTA is a multidisciplinary field of research that systematically collects, evaluates, and synthesizes data on the clinical, economic, social and ethical aspects surrounding the use of a health technology (e.g., drugs, device, diagnostic). The overall goal of HTA is to provide evidence-based information to determine the value of a technology at different points in its life cycle and inform clinical practice and reimbursement and coverage policy decisions.

As healthcare budgets are increasingly strained, HTA is playing a greater role in healthcare resource allocation decisions around the world. Examples include:

- Public HTA agencies have been established in Canada (Canadian Agency for Drugs and Technologies in Health [provinces excluding Quebec], Institut national d'excellence en santé et services sociaux [Quebec]) and abroad (National Institute for Health and Care Excellence [UK], Pharmaceutical Benefits Advisory Committee [Australia], Health Intervention and Technology Assessment Program [Thailand]) to provide reimbursement recommendations for new health technologies
- Private, nonprofit, organizations (Institute for Clinical and Economic Review [US]) are similarly performing HTA to determine value for money
- Public (pan-Canadian Pharmaceutical Alliance), private (Telus Health, Blue Cross), and hospital drug plans are using HTA to inform pricing negotiations
- International HTA networks (European Network for Health Technology Assessment [EUnetHTA,] BeNeLuxA Initiative on Pharmaceutical Policy, Valletta Declaration Group, FINOSE initiative for joint HTA in Nordic countries, International Network of Agencies for Health Technology Assessment [INAHTA]) are being established to promote joint HTA and drug pricing
- Pharmaceutical companies and consulting firms are engaged in evidence generation to support HTA

Although the authority and responsibility given to HTA agencies varies from country to country, HTA is growing across health systems as different stakeholders move towards evidence-based decision-making and seek to maximize value for money given resource constraints. This has resulted in a growing demand for HTA skills among working professionals globally.[1]

There are individual HTA graduate courses[2-4] as well as Masters and Doctorate programs available across Canada,[5, 6] including an HTA specialization in the Health Research Methodology graduate program at McMaster University.[7] However, many working professionals today may not need the depth or breadth of knowledge that these types of graduate programs provide. They also may not have the time or financial resources to attend full or part time graduate training. Therefore, we are proposing a

series of six Non-Academic Microcredentials in HTA to address the need for a more applied and accessible form of education among working professionals.

Compared to traditional graduate programs, microcredentials are specific to a particular topic, require less resources than a full degree, and can be completed over a shorter time frame. The microcredentials are intended to be self-paced, offering learners flexibility in terms of time, place, and learning speed. The online format offers further convenience for learners that may be restricted by geographic location. This opens new education opportunities for organizations that need to upskill their workforce as well as job-seekers, or working professionals in need of flexible learning opportunities to change or further their careers.

The HTA microcredentials are designed to attract individuals from diverse backgrounds who are interested in gaining foundational knowledge of HTA methods and their application to real-world decision-making. The target audience includes:

- Working professionals who want to advance their career (e.g., physicians and allied health professionals, pharmacy and health benefit program managers, health policy and program administrators, researchers and staff in the pharmaceutical, diagnostics, and medical device industries, professionals working in Ministries of Health and other government departments responsible for healthcare decision-making)
- Organizations who need specialized HTA training for their employees (e.g., patient groups, government agencies, consultancies, pharmaceutical companies, hospitals and other healthcare providers, health insurance providers etc.)

The microcredentials will be based on key HTA concepts and methodologies. This includes four introductory level microcredentials on core HTA methodologies (1. *Fundamentals of Health Technology Assessment*; 2. *Introduction to Evidence Synthesis for HTA*; 3. *Introduction to Patient-Reported Outcomes for HTA*; and 4. *Introduction to Health Economic Evaluations*) and two intermediate/advanced level microcredentials (5. *Advanced Evidence Synthesis for HTA*; and 6. *Advanced Economic Modeling for HTA*). Learners would be able to sign up for individual microcredentials, which would be completed online over 6 weeks. Upon successful completion of a microcredential, learners will receive a non-academic microcredential in recognition of their competency in one of the four core HTA methodologies.

While the offerings are structured in such a way that each microcredential may be taken individually, introductory and intermediate/advanced microcredentials could also be taken sequentially and result in a cumulative learning experience. *Fundamentals of Health Technology Assessment* will provide learners with an introduction to key concepts and the practice of HTA as well as current applications and controversies surrounding its use to inform health policy and decision-making. *Introduction to Evidence Synthesis for HTA* will introduce learners to the widespread and growing application of evidence synthesis methods in HTA. As part of this course, learners will explore the steps involved in identifying, synthesizing, and critically appraising different types of evidence (e.g., clinical, cost, patient-reported outcomes) according to the latest methodological and reporting guidelines, such as Cochrane[8] and the Preferred

Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).[9] Case studies from recent HTAs will be used to highlight common approaches and pitfalls. *Introduction to Patient-Reported Outcomes for HTA* will introduce learners to outcomes measures from the patient perspective that quantify the impact of health technologies. This microcredential is designed to familiarize learners with the range and scope of what measures are used for, how they are developed and evaluated, and how they can be incorporated into HTA. *Introduction to Health Economic Evaluations*, provides an opportunity for learners to learn about the process of conducting economic evaluations. This includes an introduction to basic concepts and methodologies of economic evaluations as well as an exposure to simple health economic modeling. Published guidance, including the ISPOR Consolidated Health Economic Evaluation Reporting Standards (CHEERS) reporting standards for economic models will be presented and discussed.[10, 11] *Advanced Evidence Synthesis for HTA* covers advanced methods of evidence synthesis used for HTA. It is designed to provide learners with in-depth and hands-on experience designing, analysing, and interpreting the results from a range of evidence synthesis methods (e.g., meta-analysis, network meta-analysis, population-adjusted indirect treatment comparison, matching adjusted indirect comparisons, simulated treatment comparisons). Case studies from recent HTAs will be used to highlight common approaches and pitfalls. *Advanced Economic Modeling for HTA* is a microcredential in health economic modeling methods that teaches learners the essential skills for developing a model for HTA. The microcredential covers different methods for modeling techniques, analyses of uncertainty, and validation of health economic models. There is a heavy emphasis on hands-on learning-by-doing with real world practical examples. For a fulsome description of each course, please refer to Section 5.2.

The non-academic microcredentials will be housed within the Continuing Professional Development (CPD) office in the Faculty of Health Sciences. It should be noted that the non-academic microcredentials are not part of any academic undergraduate or graduate program offered by the Department. Rather, they are designed to introduce a different audience (i.e., working professionals) to the concepts, methods and critical issues in the design and conduct of HTA from an applied learning perspective. Skills gained through completion of each microcredential will allow learners to understand key HTA concepts and methodology and to think critically of its application in informing policy and resource allocation decisions.

### **3.2 PROPOSAL PREPARATION AND CONSULTATION PROCESS**

The proposal was developed by Feng Xie, PhD and Brittany Humphries, PhD. As part of the development process, extensive consultations were held with stakeholders across McMaster University. Several of the individuals consulted have experience either developing online education programs or working on HTA in an industry setting. The intent of this consultation was to conceptualize an online HTA learning experience that can address unmet learning needs using an innovative, financially sustainable, education model. The individuals consulted include:

#### **HEI Department stakeholders:**

- Alfonso Iorio, Chair, Department of Health Research Methods, Evidence and Impact

- Nick Dery, Director of Administration, Department of Health Research Methods, Evidence and Impact
- Mitchell Levine, Assistant Dean, Graduate Program in Health Research Methodology, Faculty of Health Sciences; Professor, Department of Health Research Methods, Evidence and Impact
- Romina Brignardello-Petersen, Associate Professor, Associate Chair, Education, Department of Health Research Methodology, Evidence, and Impact
- Lehana Thabane, Professor, Department of Health Research Methods, Evidence and Impact
- Jean-Eric Tarride, Chair of Health Technology Management; Director, Centre for Health Economics and Policy Analysis; Associate Professor, Department of Health Research Methods, Evidence and Impact
- Lawrence Mbuagbaw, Associate Professor, Department of Health Research Methodology, Evidence, and Impact; Director, Biostatistics Unit, St Joseph's Healthcare - Hamilton
- Robby Nieuwlaat, Director, Graduate Diploma in Clinical Epidemiology; Associate Professor, Department of Health Research Methodology, Evidence, and Impact
- Gabriella Watson, Program Manager, Graduate Diploma in Clinical Epidemiology
- Emma Apatu, Director, Master of Public Health Program; Associate Professor, Department of Health Research Methods, Evidence, and Impact; Member, Centre for Health Economics and Policy Analysis
- Michael Zoratti, Assistant Professor (Part-Time), Department of Health Research Methods, Evidence, and Impact; Director, RainCity Analytics; Graduate of the Health Research Methodology program

#### **Stakeholders outside of the HEI Department:**

- Steve Hanna, Vice-Dean, Faculty of Health Sciences; Associate Dean of Graduate Studies, Health Sciences
- Rebecca Misiak, Program Administrator, Office of Vice Provost, Teaching and Learning
- Katrina Espanol-Miller, Educational Developer, Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching
- Lorraine Carter, Director, Centre for Continuing Education
- Florent Lefevre-Schlick, Program Manager, Certificates of Completion & Industrial Training Programs, Faculty of Engineering
- Teresa Chan, Associate Dean, Continuing Professional Development (Previous)

### **3.3 CONSISTENCY WITH MCMASTER'S MISSION AND ACADEMIC PLAN**

#### **i. McMaster's Strategic Mandate Agreement:**

These microcredentials support McMaster University’s commitment to **Skills & Job Outcomes**.<sup>[12]</sup> Microcredentials are a powerful tool to facilitate movement of higher education graduates into the workforce. Because they are designed to offer rapid, career-relevant skills training, they can improve student recruitment and graduate employability. In a survey of 5,000 students and employers across 11 countries (Australia, Egypt, France, Germany, India, Mexico, Saudi Arabia, Turkey, the United Arab Emirates, the United Kingdom, and the United States), 90% of respondents either agreed or strongly agreed that earning a professional certificate will help them stand out to employers and secure jobs when they graduate – while 86% agreed that a micro-credential would help them succeed in their job.<sup>[13]</sup> This sentiment was confirmed by employers, among which 88% agreed or strongly agreed that a professional certificate strengthens a candidate’s application.<sup>[13]</sup>

With regard to HTA, the need for health economics and outcomes research has expanded globally, fueling demand for professionals trained in the discipline. As part of the design of this microcredential program, we spoke with recent graduates and industry stakeholders to better understand their learning needs and ensure positive employment outcomes. We also reviewed the competencies framework developed by the International Society for Pharmacoeconomics and Outcomes Research (ISPOR),<sup>[14]</sup> the leading professional society in the field of HTA. The objective was to ensure that the microcredentials provide learners with the in-demand, specialized skills they need to secure a stable and high-paying job in this rapidly growing field. There are a broad range of HTA-related jobs (e.g., in research, marketing, policy, management) available for graduates among non-profits, consultancies, and pharmaceutical companies.<sup>[15]</sup> The salary for these jobs is often significantly higher than the Canadian average (mean of \$54,000 in 2021).<sup>[16]</sup> For example, a July 2023 posting for a Policy and Program Analyst position at CADTH, a Canadian HTA agency, offered a salary range of \$97,000 to \$127,000 per year.<sup>[17]</sup>

ii. **McMaster’s current priorities:**

The HTA microcredentials align with several of the current institutional priorities.

*Inclusive excellence:* HTA has been described as “everyone’s business”<sup>[18]</sup> – from the health economist, to the policy maker, research scientist, pharmacy benefit manager, and practicing healthcare professional. The evolving knowledge requirements of this field, plus career advancement, draw people back to the classroom on an ongoing basis throughout their life. However, many individuals are unable to pursue in-person or full-time education due to competing work and family commitments, as well as geographic location.<sup>[19]</sup> Microcredentials support increased access to post-secondary education and life-long learning by providing an additional option for learners at any stage of their education and career journey to gain skills that meet their education and employment goals.

*Teaching and learning:* At the core of the traditional higher education system is a degree. However, during the COVID pandemic, there was an increase in alternative learning models and digital offerings. A new category of education, called micro-credentials, gained widespread acceptance among employers, policymakers, and the



workforce.[20] A variety of edtech firms (e.g., Coursera, Udacity, Skillshare)[21-23] began offering these smaller, stackable, learning units – and higher education institutions in Canada followed suit. A 2021 survey conducted by the Colleges & Institutes Canada (CICan) found that 45% of Canadian colleges and institutes are currently offering microcredentials via a mix of online and in-person delivery, and another 33% are planning to do so in the future.[24]

The proposed non-academic microcredentials in HTA will leverage this innovative education model to provide more individuals with the opportunity to learn from world-class faculty at McMaster University, whose research helps inform health policy and practice locally, nationally and internationally. Graduate students enrolled in the Department of HEI already have a unique profile. Compared to the Faculty of Health Sciences, HEI has the highest number of international students (15.1%, 51 out of 337 enrolled in 2022), the most students enrolled in graduate certifications or diplomas (20.8%, 70 out of 337 enrolled in 2022), and a high percentage of part-time students (39.5%, 133 out of 337 enrolled in 2022).[25] This makes the Department well positioned to respond to the evolving learning needs of non-traditional learners through the development of innovative teaching models.

**Research and scholarship:** The Faculty of Health Sciences is considered to be the birthplace of ‘Evidence-Based Medicine’ and an internationally renowned academic institution in health economics and HTA,[26-28] With the development of these non-academic microcredentials, the Department will attract of a new type of learner (i.e., the working professional) from a diverse array of health- and management-related backgrounds. It is anticipated that this will create opportunities for faculty to establish new research collaborations and obtain funding outside of McMaster University. This will serve to bolster our reputation in the field of HTA as well as strengthen our position as Canada’s leading university for industry-sponsored research.[12]

**Engaging local, national, Indigenous, and global communities:** Microcredentials are part of an ongoing effort to expand the postsecondary education market. Delivered in an exclusively online format to both domestic and international learners, the microcredentials will increase McMaster University’s presence in HTA locally, nationally, and internationally.

### **3.4 LEARNING OUTCOMES**

The overarching aim of the non-academic microcredentials in HTA is to increase learners’ understanding of and ability to conduct HTA. It is believed that learners will come from a variety of professions and disciplines; and therefore need a comprehensive education regarding the concept of HTA itself and the methodology of different components (e.g., evidence synthesis, patient-reported outcomes, economic evaluation). The learning scaffolding that underpins these microcredentials follows a sequential growth model where the learners acquire an understanding of the basic concept of HTA in the introductory microcredentials (*Fundamentals of Health Technology Assessment, Introduction to Evidence Synthesis for HTA, Introduction to Patient-Reported Outcomes for HTA, and Introduction to Health Economic Evaluations*) and progressively move towards developing intermediate to advanced knowledge and skill development in core methodologies (*Advanced Evidence Synthesis for HTA and*



*Advanced Economic Modeling for HTA).*

Particular attention was paid to the ISPOR Health Economics and Outcomes Research Competencies Framework[14] and other surveys of health professionals' training needs when developing the learning outcomes for the microcredentials. Beyond the addressing multidisciplinary nature of HTA, industry stakeholders have communicated that there is difficulty in connecting theory with practice.[1] As result, each microcredential develops applied capabilities for a specific element of HTA (with the exception of *Fundamentals of Health Technology Assessment*, which introduces the foundational concepts of HTA). Upon completion of a microcredential, learners will be able to not only describe the methodology of a key component of HTA (e.g., systematic literature review, patient-reported outcomes, economic evaluation) but also demonstrate the practical skills and mindset that are required to conduct HTA in that area.

### 3.5 CONSISTENCY WITH DEGREE LEVEL EXPECTATIONS

**Depth and Breadth of Knowledge:** Upon completion of a non-academic microcredential, learners will be able to demonstrate a systematic understanding of a key HTA methodology (i.e., evidence synthesis, patient reported outcomes, or health economics). This includes knowing the requirements and basic technical knowledge to produce the evidence required for HTA as well as the ability to critically appraise its application in informing policy and resource allocation decisions.

**Research and Scholarship:** Non-academic microcredentials do not require students to complete a research internship, scholarly paper, or thesis. Therefore, this does not apply.

**Application of Knowledge:** Throughout each microcredential, learners will be expected to apply knowledge from course content through a variety of means. This can include discussion with peers in online discussion forums, quizzes, and exercises. Individuals enrolled in a microcredential will gain experience applying their learnings in real-world contexts by engaging with HTA case studies and published guidelines.

**Communication Skills:** Communication is central to the conduct of HTA. Microcredential content will reflect the centrality of interdisciplinary communication. Learners will be offered opportunities to practice and improve their communication skills through discussions and exercises.

**Awareness of Limits of Knowledge:** Learners enrolled in an HTA microcredential will gain an understanding of the current applications and challenges in using evidence-based information to inform policy and resource allocation decisions. As experts in the field, faculty will expose learners to the latest methods, guidelines, and challenges, thereby giving learners a sense of the rapidly evolving knowledge base in HTA. Learners will be encouraged to think critically in their own work and to pursue the latest research available on such topics as the field of HTA grows.

**Autonomy and Professional Capacity:** These non-academic microcredentials are intended to provide working professionals with the core skills that are needed to conduct

HTA. Learners will engage with various methodologies in HTA and how to apply them in real-life decision-making contexts. The competencies that will be developed in learners of the program are desirable in candidates for current and future health research and management-related positions, as the goal of achieving 'value for money' in healthcare resource allocation increases in urgency among health systems around the globe.

### **3.6 DEMAND**

#### **I. EVIDENCE OF SOCIETAL/LABOUR MARKET NEED**

Many businesses in Canada have been affected by a skills gap, which is a disparity between the number of jobs available and workers with the right skills to fill them. According to the Statistics Canada Survey of Employers on Workers' Skills, more than half (56.1%) of Canadian businesses reported in 2021 that their overall workforce was not fully proficient to perform their job at the required level.[29]

Efforts are being made to address the skills gap. Nearly three-quarters (71.0%) of Canadian businesses report that they have provided training to their employees,[29] indicating a willingness to invest in professional development opportunities. The Ontario Government has provided further support through the Micro-credentials Challenge Fund (worth \$15 million),[30] the launch of the eCampusOntario Micro-credential Toolkit[31] and the expansion of the Ontario Student Assistance Program (OSAP) to include over 600 microcredential programs.[30] Unlike diplomas, the intention of these newly available loans and grants for microcredentials is to support rapid training opportunities for in-demand skills that employers need.[30]

As healthcare resources in Canada are increasingly strained, there is a growing demand to develop specialist skills in HTA[32] - which points to the value of continuing professional education.[14] In Alberta, Athabasca University received \$330,000 in funding to develop a new health economics micro-credential (no indication of being open for enrollment as of August 2023).[18] Ontario does not have a similar program and, as of July 6, 2023, there were 1,386 unfilled health economics jobs in the province.[33] Note that health economics is just one of the core competencies required to conduct HTA.

The HTA skills gap is not restricted to Canada. The World Health Organization 2015 Global Survey on Health Technology Assessment found that the main barrier to HTA development in healthcare decision-making in almost all 194 countries included in the survey was a lack of qualified human resources.[34] Fewer than half of responding countries had academic or training programmes to build HTA capacity.[34] Additional needs assessments conducted in the European Union,[35] the Eastern Mediterranean region,[36] Zambia,[37] Ghana,[32] India,[38] and Ukraine[39] confirmed post-graduate training needs in core HTA competencies (e.g., health economics and outcomes research).

#### **II. EVIDENCE OF STUDENT DEMAND**

Before the COVID pandemic, faculty from HEI hosted an annual three day HTA workshop. On average, there were between 20-30 participants each year. Attendees were from academic, public, and private sectors, highlighting the interest among

working professionals to receive additional HTA training without taking time out of their career to obtain a graduate degree or diploma. This sentiment was confirmed in conversations with industry stakeholders, who indicated that there is a high need for job-specific training in HTA.

Because the HTA workshop was conducted in-person, attendees were primarily from the Greater Toronto Area. However, more individuals globally are requiring foundational training as new HTA agencies and regulations are established. The University of Sheffield offers a four week online introductory HTA course offered through the EdTech firm Future Learn.[40] As of August 2023, they report a total of 13,379 learners enrolled in the course. Thus, there is clearly demand for HTA training outside of the graduate space currently offered by McMaster University. Note: the HTA courses on Future Learn offer broad introductions to HTA (with no specific focus on key methodologies, such as patient reported outcomes).

With regard to McMaster University, Dr. Feng Xie, a Professor in the HEI Department, supervises or mentors 10 international students at any given time. He receives additional requests each year from potential students in China, Nigeria, Iran, Ethiopia, Pakistan, and elsewhere as many countries have limited opportunities to offer HTA courses.[39] Again, this indicates a clear demand for HTA training that McMaster University is unable to fulfill. The non-academic microcredentials in HTA may appeal to these prospective international students due to its online, mostly asynchronous, format. In addition to student supervision, Dr. Xie frequently travels internationally to provide HTA training. A one-hour online lecture in 2021 had over 500 registered attendees. This indicates an openness to online learning experiences offered by McMaster University faculty.

### **III. JUSTIFIABLE DUPLICATION**

As part of the consultation process, we consulted with leaders in HEI to ensure that the proposed microcredentials complement current offerings. The Department offers an HTA specialization to graduate students but there are fundamental differences with the non-academic microcredentials in HTA. The HTA specialization is part of an advanced degree. As such, it provides students with in-person, in-depth learning experiences, and the option of a thesis to prepare them to become independent researchers. In contrast, the microcredentials are an exclusively online learning experience designed for working professionals. No credit hours will be provided. The microcredentials will provide learners with a comprehensive, understanding of the methodologies required to conduct HTA as well as guidance for applying them in a real-world setting.

While there is some overlap in the topics covered (i.e., evidence review or economic evaluations), the objectives, content, and assessments of the microcredentials will be fundamentally different from current academic offerings to suit the needs of our target learners - who are seeking applied, rather than technical or theoretical, knowledge. Industry stakeholders have communicated that there is a difficulty in connecting theory with practice.[1] Working professionals may not necessarily need the technical skills to independently program an entire economic model but they do need knowledge of health economic concepts, practical experience working with models (e.g., opening models, changing inputs, running analyses), and an understanding of their strategic application

in HTA. This will be reflected in both the learning outcomes and assessments of each microcredential.

Beyond content, an important difference between the HTA microcredentials and graduate courses currently offered by HEI, is the delivery. Unlike the graduate courses, the HTA microcredentials will be offered exclusively online. As a result, the microcredentials will reach a new set of learners that would otherwise not be enrolled in graduate training at McMaster University.

### **3.7 DEGREE NOMENCLATURE**

Non-Academic Microcredentials in Health Technology Assessment is the appropriate title for these offerings.

Microcredentials are short and flexible online programs that offer skills that align with labour market needs.[41] As a non-academic offering, there are no specific admission or rigorous program requirements (i.e., to ensure consistency with undergraduate or graduate degree level expectations at McMaster University). Nor are there credit hours that may be used towards a degree. This is because many individuals, particularly working professionals, may not have the time, interest, or resources to enroll in a traditional academic program. For example, an individual working within the pharmaceutical industry may choose to pursue a microcredential to further specialize in a particular area of interest (e.g., health economics) and advance their career.

The practice of HTA is reflected in the microcredential content, allowing learners and employers to easily understand the general focus of the program. Each microcredential will cover a different topic (e.g., evidence synthesis or patient reported outcomes) as it relates to the practice of HTA. By having this concept woven into the content of each microcredential, learners will be encouraged to approach each topic from a specific, applied, learning perspective. The name of each microcredential reflects the level of mastery of each topic (i.e., Inductory or Advanced).

## **4 ADMISSION & ENROLMENT**

### **4.1 ADMISSION REQUIREMENTS**

In line with McMaster University's *Certificates, Diplomas & Microcredentials Policy* (2023),[42] there are no admission requirements for the non-academic microcredentials in HTA.

However, to ensure that learners are successful in their online microcredentials, it will be recommended that they:

- Are proficient in the English language
- Have an undergraduate or equivalent, with a basic course in statistics or research design recommended
- Have knowledge and skills with general computer applications, such as videoconfering (Zoom) and Microsoft Office (Word, Excel, PowerPoint)

For the advanced microcredentials, there will be an added disclaimer that the microcredential is designed for those with some experience with evidence synthesis or health economics (depending on the option selected by the learner). Note: this is standard practice for short courses on advanced topics in this area, which do not have formal admission requirements.[43]

## 4.2 ENROLMENT PLANNING AND ALLOCATIONS

To maintain feasibility, we will take a staggered approach to launching the microcredentials. In the first year (2025-26), we plan to offer two microcredentials, with an anticipated enrollment of 5 learners per microcredential. Each subsequent year, we will launch two new microcredentials and increase enrolment. In the second year, we anticipate achieving a state of six courses with  $\approx 10$  learners each. To maximize flexibility, each microcredential will be offered multiple times per year (with two iterations to start).

Academic Year	Number of microcredentials offered	Number of learners per microcredential	Number of iterations per year	Total Enrolment
2025-26	2	5	2	20
2026-27	4	10	2	80
2027-28	6	10	2	120

## 4.3 ALTERNATIVE REQUIREMENTS

No alternative requirements for admission into a non-academic microcredential in HTA exist.

# 5 STRUCTURE

## 5.1 ADMINISTRATIVE, GOVERNANCE AND COMMUNICATION

The administrative home of the non-academic microcredentials in HTA will be CPD. The microcredentials will be managed by a 0.2 FTE/Year 1 and 0.4 FTE/subsequent years Director (Dr Brittany Humphries) with oversight by Dr Feng Xie, a Professor in the HEI Department. The Director will report to Dr Feng Xie. We will consult with the Department Chair and Assistant Dean, Health Research Methodology Program.

The Director will be responsible for:

- Oversight of the delivery and coordination of microcredentials, scheduling of instructors, instructional recruitment, evaluation, and instructional support
- Leading instruction of the microcredentials;
- Leading recruitment activities, managing learner experience, curriculum planning and implementation
- Meeting the reporting requirements outlined in the Microcredentials Policy
- Enforcement of microcredential requirements and regulations

- Leading and/or contributing to strategy and ongoing quality improvement of the program to meet the evolving needs of the HTA community and learners

Eventually, the non-academic microcredentials in HTA may be supported by a Coordinator who will support administrative tasks. They would serve as the main administrative contact for admissions, calendar changes, and coordination of other activities.

## **5.2 STRUCTURE AND REGULATION**

Each microcredential will be a stand-alone offering. After successful completion of a microcredential, learners will receive a non-academic microcredential in the topic they have selected.

### **Microcredentials and descriptions**

#### **Fundamentals of Health Technology Assessment**

Health technology assessment (HTA) is a dynamic and rapidly evolving process that embraces different types of evidence to assess the clinical, economic, social, and ethical impact of a health technology (e.g., drug, device, or other intervention). Historically, HTA agencies produced reports to inform policy or clinical decision-making. However, increasingly diverse organizations are undertaking HTAs to inform different types of decisions, such as listing a drug on a formulary, determining the coverage offered by an insurance plan, or issuing guidance statements on the use of a technology in a particular healthcare system. This microcredential will provide learners with an introduction to the principles of HTA as well as its current applications and controversies. Using real-world examples and guidelines, learners will explore about the basic methodologies involved in conducting HTA and how it is used by different actors to inform different types of decisions.

#### **Introduction to Evidence Synthesis for HTA**

This microcredential will introduce learners to the widespread and growing application of evidence synthesis methods in HTA. As part of this microcredential, learners will learn the steps involved in identifying, synthesizing, and critically appraising different types of evidence (e.g., clinical, cost, patient-reported outcomes) according to the latest methodological and reporting guidelines, such as Cochrane[8] and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).[9] Case studies from recent HTAs will be used to highlight common approaches and pitfalls.

#### **Introduction to Patient-Reported Outcomes in HTA**

Patient-reported outcome (PRO) measures are used to quantify the impact of a disease or intervention from the patient perspective. This microcredential is designed to familiarize learners with the range of what PRO measures are available, what they are used for, how they are developed and evaluated, and how they can be incorporated into HTA. Learners will gain first hand experience selecting an appropriate PRO, analyzing outcome data, and interpreting its significance for HTA decision-makers. Case studies from recent HTAs will be used to highlight common approaches and pitfalls.

#### **Introduction to Health Economic Evaluations**



This microcredential will provide learners with an introduction to basic concepts and methodologies of economic evaluations. Learners will explore the different types of economic evaluation available (e.g., cost-minimization, cost-effectiveness, cost-utility, cost-benefit, and budget impact analysis) and their application in HTA. As part of the microcredential, learners will gain experience building a simple health economic model. HTA requirements and published guidance statements, including the ISPOR Consolidated Health Economic Evaluation Reporting Standards (CHEERS) reporting standards for economic models, will be presented and discussed.[10, 11]

### **Advanced Evidence Synthesis for HTA**

This microcredential covers intermediate to advanced methods of evidence synthesis and their application to HTA. It is designed to provide learners with in-depth and hands-on experience designing, analysing, and interpreting the results from a range of advanced evidence synthesis methods (e.g., meta-analysis, network meta-analysis, population-adjusted indirect treatment comparison, matching adjusted indirect comparisons, simulated treatment comparisons). Case studies from recent HTAs will be used to highlight common approaches and pitfalls.

### **Advanced Economic Modeling for HTA**

This is an intermediate to advanced microcredential in health economic modeling methods that teaches learners the essential skills for developing a model for HTA. The microcredential covers different methods for modeling techniques (e.g., decision tree, Markov model), analyses of uncertainty, and validation of health economic models. There is a heavy emphasis on hands-on learning-by-doing with real world practical examples. Prior knowledge of Excel is essential.

### **Enrollment policy**

Microcredentials will operate separately from the Health Research Methodology program's courses. The intention of the non-academic microcredentials in HTA is not to duplicate the educational experience of the Health Research Methodology graduate program. Instead, the microcredentials are projected to appeal to working professionals who may work in various fields related to HTA and who are interested in upskilling by undertaking a learning experience that provides more flexibility than what is currently offered by the HEI Department. Tuition will be charged per microcredential and will be comparable with other asynchronous microcredentials offered by McMaster (i.e., Engineering).

Learners enrolled in a microcredential will not be given priority for admissions considerations to graduate programs at McMaster University, although this may strengthen their application. Interested applicants will be encouraged to consult each program's admissions requirements.

### **5.3 MICROCREDENTIAL LENGTH**

The microcredentials are designed to be completed at a self-paced for learners over the course of 6 weeks. This ensures that the program meets the Ontario Ministry of Colleges and Universities' requirements for microcredentials (which must be shorter than 12 weeks in duration).[44]

## 6 CURRICULUM AND TEACHING

### 6.1 MICROCREDENTIAL CONTENT

The needs of industry stakeholders were central to informing the content of the microcredentials. Many working professionals (e.g., physicians and allied health professionals, pharmacy and health benefit program managers, health policy and program administrators, research and staff in the pharmaceutical, diagnostics, and medical device industries) are finding themselves in positions where knowledge of HTA is required but they are without any formal training. As such, the non-academic microcredentials in HTA are designed around the idea that people from diverse backgrounds deserve an educational experience that will teach them about the fundamentals of HTA through an applied learning lens. The microcredentials will be delivered by faculty and professionals in the field. Content of the non-academic microcredentials in HTA will be on general methodological concepts as well as their application in real-world settings as demonstrated by published guidelines and case studies. Exercises will be created to facilitate the development of practical skills.

### 6.2 INNOVATION

One of the innovative aspects of this proposal is how the microcredentials are structured. HEI recently launched two online graduate Diplomas in Clinical Epidemiology and Community and Public Health. As part of the consultation process, we spoke with individuals who had experience in either setting up or running these programs. Although both the Clinical Epidemiology and Community and Public Health programs are graduate diplomas, it was suggested that to instead consider microcredentials. One benefit of microcredentials is the flexibility. Learners can sign up for a single course, meaning they (or their employers) do not have to commit the time and money to complete a Diploma up front.

A market scan was conducted to see if there are similar diplomas, certificates, or microcredential programs in HTA or relevant disciplines. While there are a small handful of programs offering a combination online postgraduate certificates and/or diplomas, none of them provide the same flexibility as the proposed non-academic microcredentials in HTA. For example, a student interested in learning about health economic modelling must enrolled in either a Certificate (duration of  $\approx$  1 year) or Diploma (duration of  $\approx$  2 years) program. The only one-off online courses available are 4-week introductory HTA courses offered by the the universities of Glasgow and Sheffield or general health research courses offered by the University of Aberdeen. These do not provide the type of specialized, applied, training that working professionals involved in HTA need (e.g., in patient-reported outcomes and other core methodologies).

There is also innovation with regard to the content of the microcredentials. A 2022 study investigating existing HTA training initiatives around the world found a limited number of HTA training programs targeting healthcare professionals.[45] Unlike current offerings, the non-academic microcredentials in HTA are specifically designed to develop the core competencies required for working professionals to conduct HTA – which includes an evidence synthesis component, patient-reported outcome data, and health economic evaluation. The content leverage the various strengths of McMaster University's HEI



Department. Not only are faculty recognized as world leaders in HTA, they have experience hosting an annual three day HTA workshop with attendees from academic, public, and private sectors (i.e., working professionals who want to receive additional HTA training without taking time out of their career to obtain a graduate degree). The non-academic microcredentials in HTA intend to incorporate the same hands-ons learning experience from the workshop and Health Research Methodology program. The planning and evaluation of the non-academic microcredentials will also be informed by the various professionals in the field who can provide a unique learning experience for learners through the practical application of course content in real-world settings.

## Market Scan of Diplomas or Certificates in HTA

Institution	Name	Content	Duration	Delivery	Link
University of Glasgow	Postgraduate HTA Certificate	<p>Courses:</p> <ul style="list-style-type: none"> <li>HTA: Policy and Principles</li> <li>Statistical Methods for Health Technology Assessment and Evidence Based Medicine</li> <li>Health Economics for HTA</li> <li>Real-World Data in Health Care Decision-Making</li> <li>Health Technology Assessment in a Global Context</li> <li>Survival Analysis for Health Technology Assessment</li> <li>Evidence Synthesis</li> <li>Maximising the Value of Clinical Trial Data: Analysis for Economic Evaluation and Modelling</li> </ul>	1 year (3 courses)	Online	<a href="https://www.gla.ac.uk/postgraduate/taught/healthtechnologyassessment/">https://www.gla.ac.uk/postgraduate/taught/healthtechnologyassessment/</a>
	Postgraduate HTA Diploma	<ul style="list-style-type: none"> <li>Decision Analytic Modelling and Early Health Technology Assessment</li> <li>Choice Experiments for Health Economics, HTA, and One Health</li> <li>Qualitative Research Methods for Public Health</li> </ul>	2 years (6 courses)	Online	
	Digital Certificate	<p>Course:</p> <ul style="list-style-type: none"> <li>Introduction to Health Technology Assessment</li> </ul>	4 weeks (1 course)	Online	<a href="https://www.w.cla.ssce">https://www.w.cla.ssce</a>

Institution	Name	Content	Duration	Delivery	Link
University of Sheffield	Postgraduate Certificate International Health Technology Assessment and Reimbursement	Courses: <ul style="list-style-type: none"> <li>• Methods and Processes in International Health Technology Assessment</li> <li>• Systematic Reviews and Evidence Synthesis: Principles</li> <li>• International Healthcare Systems and Reimbursement</li> <li>• Cost-effectiveness Modelling in Health Technology Assessment</li> <li>• Economic Evaluation in International Health Technology Assessment</li> <li>• International Health Technology Assessment and Reimbursement Real World Case Studies</li> </ul>	1-2 years (4 courses)	Online	<a href="https://www.sheffield.ac.uk/postgraduate/taught/courses/2023/international-health-technology-assessment-and-reimbursement-online-msc-pg-certificate-pg#modules">https://www.sheffield.ac.uk/postgraduate/taught/courses/2023/international-health-technology-assessment-and-reimbursement-online-msc-pg-certificate-pg#modules</a>
	Postgraduate Diploma International Health Technology Assessment and Reimbursement	<ul style="list-style-type: none"> <li>• Randomised Controlled Trials to Support Reimbursement Decision Making</li> <li>• Using Evidence in the Design and Development of Models</li> <li>• Building Cost-effectiveness Models for Health Technology Assessment</li> <li>• Utility and Patient-reported Outcomes Data in Health Technology Assessment</li> </ul>	2-4 years (8 courses)	Online	
	Digital Certificate	Course: <ul style="list-style-type: none"> <li>• Health Technology Assessment: Choosing Which Treatments Get Funded</li> </ul>	4 weeks (1 course)	Online	<a href="https://www.futurelearn.com/course/s/hta">https://www.futurelearn.com/course/s/hta</a>

Institution	Name	Content	Duration	Delivery	Link
University of York	Postgraduate Certificate Health Economics for Health Care Professionals	Courses: <ul style="list-style-type: none"> <li>• Basic Economic Concepts</li> <li>• Health Economics: Concepts and Analysis</li> <li>• Introduction to Health Care Evaluation</li> <li>• The Economics of Health Care Systems</li> <li>• Statistics for Health Economics</li> <li>• Advanced Topics in Economic Evaluation</li> </ul>	1 – 2 years (3 courses)	Online	<a href="https://www.york.ac.uk/study/postgraduate-taught/courses/ldce">https://www.york.ac.uk/study/postgraduate-taught/courses/ldce</a>
	Postgraduate Diploma Health Economics for Health Care Professionals		1 – 2 years (6 courses)	Online	<a href="https://www.york.ac.uk/study/postgraduate-taught/courses-2023/lddip-health-">https://www.york.ac.uk/study/postgraduate-taught/courses-2023/lddip-health-</a>
University of Aberdeen	Health Economics for Health Professionals Postgraduate Certificate	Courses: <ul style="list-style-type: none"> <li>• Introduction to Economics and Health Economics</li> <li>• Economic Evaluation Principles and Frameworks</li> <li>• Economic Evaluation – Application and Policy</li> <li>• Economics of Health Behaviour</li> <li>• Health Care Systems and Policy</li> <li>• Health Informatics</li> <li>• Qualitative Health Research</li> <li>• Evidence-Based Health</li> <li>• Designing Real-World Trials</li> <li>• Fundamentals of Research Design</li> <li>• Applied Statistics</li> </ul>	9 months (4 courses)	Online	<a href="https://on.abdn.ac.uk/degrees/health-economics-for-health-professionals/#how">https://on.abdn.ac.uk/degrees/health-economics-for-health-professionals/#how</a>
	Health Economics for Health Professionals Postgraduate Diploma		18 months (8 courses)	Online	

Institution	Name	Content	Duration	Delivery	Link
	Short courses	Courses: <ul style="list-style-type: none"> <li>• Applied Statistics</li> <li>• Designing Real-World Trials</li> <li>• Economic Evaluation Principles and Frameworks</li> <li>• Evidence-Based Health</li> <li>• Fundamentals of Research Design</li> <li>• Health Informatics</li> <li>• Qualitative Health Research</li> </ul>	14 weeks (1 course)	Online	
Duke-NUS Medical School	Graduate Certification Programme in Health Economic Evaluation	Courses: <ul style="list-style-type: none"> <li>• Introduction to Health Econometrics</li> <li>• Introduction to Health Economic Modelling</li> <li>• Advanced Econometrics</li> <li>• Advanced Health Technology Assessment Methods</li> </ul>	1 year (4 courses)	Online	<a href="https://www.duke-nus.edu.sg/hssr/education/graduate-certification-in-hee">https://www.duke-nus.edu.sg/hssr/education/graduate-certification-in-hee</a>
University of Alberta	Graduate Embedded Certificate (GEC) in Health Economic Evaluation*	Courses: <ul style="list-style-type: none"> <li>• Introduction to Health Economics</li> <li>• Introduction to Health Economic Evaluation</li> <li>• Advanced Health Economic Evaluation</li> <li>• Introduction to Health Care Finance</li> <li>• Health Policy Development (3 units)</li> <li>• Technology Assessment for Health Care</li> <li>• Methods for the Assessment of Health-Related Quality of Life</li> <li>• Topics in Public Health: Critical Appraisal of Random Controlled Trials or equivalent</li> </ul>	1 year (4 courses)	Not specified	<a href="https://www.ualberta.ca/public-health/programs/graduate-certificates/graduate-embedded-certificate-in-health-economic-evaluation">https://www.ualberta.ca/public-health/programs/graduate-certificates/graduate-embedded-certificate-in-health-economic-evaluation</a>

\*Only open to graduate students at the University of Alberta

### 6.3 MODE(S) OF DELIVERY

An instructor will lead the delivery of each microcredential. Microcredential instructors will be full or part-time faculty members of the Department of HEI. The primary instructor will be the Director, along with Dr Feng Xie.

The microcredentials will be offered fully online using Zoom and the CPD's learning management system (fac.dev) that is open to external learners. The Department of HEI is currently using Zoom to successfully to run their online diplomas and other graduate programs. fac.dev is CPD's learning management system. It provides a robust platform for asynchronous instruction.

### 6.4 LEARNING ACTIVITIES

Asynchronous interactions will occur between learners and instructors via fac.dev by:

- **Uploading pre-recorded video lectures from instructors.** Every week, there will be a module with approximately 1.5 hours of content that is split into 'bite-size' sections of mini-lectures.
- **Uploading suggested readings.** For each module, learners will be provided with a list of suggested readings to further their learning.
- **Uploading quizzes.** A short multiple choice quiz (5-10 questions) will be prepared for major topics in each microcredential to assess learners' understanding. Whenever possible, the questions will be based on a real-world HTA case study.
- **Uploading exercises.** An optional exercise will be prepared for major topics in each microcredential to allow the learner to apply the lecture content and gain first-hand experience engaging with a core HTA methodology. Each exercise will take around 1 hour to complete.
- **Uploading video-recorded 'run-throughs' for each exercise.** Each exercise will be accompanied by a written answer sheet and/or video-recorded run-through to support learners.
- **Hosting online discussion boards.** Learners will be able to post questions about the lectures and exercises online. Discussion boards will be managed by the instructor.

While the majority of the microcredentials will be asynchronous, each one will have **live question and answer (Q&A) sessions** hosted via Zoom so that learners may interact directly with instructors and other faculty from the HEI Department.

The lectures, quizzes, and live Q&As will amount to 2 hours per week. An additional 1 hour per week is expected for the optional exercises, with an understanding that the time commitment will vary between individuals.

### 6.5 EXPERIENTIAL LEARNING

Experiential learning will occur throughout each microcredential. In each microcredential, learners will be given an opportunity to practice their communication skills and engage in exercises that emulate real world practice to equip them with the practical skills and mindset to conduct a component of HTA.

## 6.6 ACCESSIBILITY

**Admissions & Structure:** There will be no admissions requirements for the non-academic microcredentials in HTA. Because the microcredentials will be offered online, it will expand the reach of the type of learners that can participate. All microcredentials will run mostly asynchronously (with the addition of live Q&As), further supporting learner flexibility and accommodating those living in a different time zone or engaged in part- or full-time employment.

**Curriculum & Teaching:** Instructors will create online environments that facilitate a sense of belonging for all learners. This includes actively facilitating discussions in online forums and providing closed captions for all videos to support learners with hearing impairments, who are still mastering the English language, or who process information better from seeing written words.

Instructors will set clear expectations for the quizzes and exercises and will work with learners one-on-one to deal with unexpected situations. The Director and instructors may consult with the MacPherson Institute as necessary to make sure that microcredentials are designed and delivered in a way that reflects universal design.

**Compliance with AODA:** The Director will ensure that the delivery of each non-academic microcredential meets the standards by the Accessibility for Ontarians with Disabilities Act (AODA) and the McMaster University Accessibility Plan 2012-2025.

## 6.7 RESEARCH REQUIREMENTS (IF APPLICABLE)

The microcredentials are non-academic and do not require learners to complete a research internship, scholarly paper, or thesis. Therefore, this section does not apply.

# 7 ASSESSMENT OF LEARNING

## 7.1 METHODS FOR ASSESSING LEARNERS

A non-academic microcredential acknowledges that *“an individual has completed learning activities related to a coherent set of skills, competencies, or knowledge that does not meet the requirements of an academic program at McMaster University.”*[42]

Learners enrolled in a non-academic microcredential in HTA will engage in activities aimed at both the acquisition of knowledge and the demonstration of applied skills as it relates to HTA. These are the two, overarching, goals of each microcredential.

Because our target learners are working professionals, there will be no major essay or exam. Instead, learning outcomes will be assessed using quizzes. For each major topic within a microcredential, learners will complete a short multiple choice quiz (5 to 10 questions) online to assess their understanding of the lecture content. Whenever possible, the quiz include content from a real-world HTA case study. The quizzes will be graded by the learning management system. Learners will require a 70% to pass and will be able to take the quiz as many times as needed (similar to the employee health and safety training modules at McMaster University). This ensures that the microcredentials have an evaluation component, which is required by McMaster

Univeristy.[42] As recommended in eCampus Ontario's Microcredential toolkit, the use of regular quizzes throughout each microcredential provides learners with access to low-stakes opportunities for them to reflect on their own learning and identify gaps in understanding.[46] Automated grading ensures that the feedback is instantaneous. Learners can reach out via email, post on the discussion boards, or ask questions during the live Q&A sessions to receive additional, direct, feedback from instructors.

Not all formative assessments will be graded.[46] For each microcredential, learners will also have the option to complete hands-on exercise(s) that will allow them to apply the lecture content in practice and gauge their own learning and progress. This will equip them with the practical skills and mindset to conduct a component of the HTA process.



## 7.2 CURRICULUM MAP

A curriculum map is presented below.

Microcredential	Learning Outcomes	Learning Activities	Assessment
Fundamentals of Health Technology Assessment	<p>By the end of this microcredential, learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the HTA process and how it contributes to value assessment and evidence-based decision-making;</li> <li>2. Identify the evidence requirements for HTA (e.g., systematic literature review, economic evaluation, consideration of ethical, legal, and social impact); and</li> <li>3. Debate current applications of HTA from different stakeholder perspectives (e.g., patients, providers, payers, regulators) and healthcare systems.</li> </ol>	<ul style="list-style-type: none"> <li>• Watching video recordings of lectures</li> <li>• Reading suggested materials</li> <li>• Posting on discussion boards</li> <li>• Attending live Q&amp;A sessions</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice quizzes</li> </ul>
Introduction to Evidence Synthesis for HTA	<p>By the end of this microcredential, learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the process for identifying, synthesizing, and</li> </ol>	<ul style="list-style-type: none"> <li>• Watching video recordings of lectures</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice quizzes</li> </ul>

Microcredential	Learning Outcomes	Learning Activities	Assessment
	<p>critically appraising a body of evidence according to the latest methodological and reporting guidelines;</p> <p>2. Design a basic literature search and select the appropriate method for evidence synthesis based on the type of evidence considered (e.g., clinical, cost, quality of life); and</p> <p>3. Critically appraise the methodological quality of included studies and identify sources of bias.</p>	<ul style="list-style-type: none"> <li>• Reading suggested materials</li> <li>• Posting on discussion boards</li> <li>• Completing a hands on exercise</li> <li>• Attending live Q&amp;A sessions</li> </ul>	
Introduction to Patient-Reported Outcomes for HTA	<p>By the end of this microcredential, learners will be able to:</p> <p>1. Describe the concept of PROs and how they contribute to the evaluation of health technologies;</p> <p>2. Compare the unique features of different PROs and select the appropriate measure for HTA ; and</p>	<ul style="list-style-type: none"> <li>• Watching video recordings of lectures</li> <li>• Reading suggested materials</li> <li>• Posting on discussion boards</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice quizzes</li> </ul>

Microcredential	Learning Outcomes	Learning Activities	Assessment
	3. Summarize key considerations for analysis and interpretation of PRO data.	<ul style="list-style-type: none"> <li>• Completing a hands on exercise</li> <li>• Attending a live Q&amp;A session</li> </ul>	
Introduction to Health Economic Evaluations	By the end of this microcredential, learners will be able to: <ol style="list-style-type: none"> <li>1. Describe the different types of economic evaluations and their role in HTA;</li> <li>2. Develop a protocol for conducting an economic evaluation, including specifying the intervention and comparator(s), population, time horizon, perspective, outcomes considered, data sources, and analytic approach; and</li> <li>3. Interact with and interpret the output of a simple economic model in Microsoft Excel.</li> </ol>	<ul style="list-style-type: none"> <li>• Watching video recordings of lectures</li> <li>• Reading suggested materials</li> <li>• Posting on discussion boards</li> <li>• Completing a hands on exercise</li> <li>• Attending a live Q&amp;A session</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice quizzes</li> </ul>
Advanced Evidence Synthesis for HTA	By the end of this microcredential, learners will be able to: <ol style="list-style-type: none"> <li>1. Describe advance evidence synthesis methods and emerging meta-analytic</li> </ol>	<ul style="list-style-type: none"> <li>• Watching video recordings of lectures</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice quizzes</li> </ul>

Microcredential	Learning Outcomes	Learning Activities	Assessment
	<p>techniques that are being used for HTA;</p> <ol style="list-style-type: none"> <li>2. Develop a protocol for conducting a meta-analysis;</li> <li>3. Use statistical software (i.e., R) to run a meta-analysis; and</li> <li>4. Interpret and communicate the results of a meta-analysis.</li> </ol>	<ul style="list-style-type: none"> <li>• Reading suggested materials</li> <li>• Posting on discussion boards</li> <li>• Completing a hands on exercise</li> <li>• Attending live Q&amp;A sessions</li> </ul>	
Advanced Economic Modeling for HTA	<p>By the end of this microcredential, learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Develop an advanced economic model in Microsoft Excel;</li> <li>2. Conduct sophisticated sensitivity analysis techniques, including probabilistic sensitivity analysis, to assess the uncertainty surrounding key parameters; and</li> <li>3. Interpret and communicate the results of an economic evaluation.</li> </ol>	<ul style="list-style-type: none"> <li>• Watching video recordings of lectures</li> <li>• Reading suggested materials</li> <li>• Posting on discussion boards</li> <li>• Completing a hands on exercise</li> <li>• Attending live Q&amp;A sessions</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple choice quizzes</li> </ul>

### 7.3 DEMONSTRATING LEARNER ACHIEVEMENT

Learners who successfully complete a microcredential will receive a Non-Academic Microcredential in recognition of their demonstrated achievement of the knowledge and application of one of the core components of HTA. In line with the microcredentials currently offered by McMaster Continuing Education, each learner will receive an email containing a link to the microcredential in a digital format.[41] It will outline the specific skills, competencies, and specialized learning they have obtained from the microcredential. This tamper-proof credential includes information such as the issuing institution, the date earned, learning outcomes, and evaluation criteria. Learners can use the microcredential in different ways to demonstrate their achievements:

- Include it as a link on their resume
- Add it to their LinkedIn and Facebook profiles
- Share it with potential employers
- Print a copy to give to their employer
- Share it with family and friends
- Print it and frame it

## 8 RESOURCES

### 8.1 ADMINISTRATIVE, PHYSICAL AND FINANCIAL RESOURCES

**Administrative resources:** The non-academic microcredentials in HTA proposes to have a complement of one 0.2 FTE/first year and 0.4 FTE/subsequent years Director. The Director will have oversight of the microcredentials, serve as a lead instructor and be responsible for curriculum coordination and administrative support (e.g., coordinating guest lectures and live Q&As), responding to academic questions and quizzes. Additional support may be provided by current full or part-time faculty members from the HEI Department.

CPD will be responsible for housing the microcredentials. They will liaise with prospective learners, support registration and setup, resolve technical questions and issues, and credentialing. The HEI Department will be responsible for promotions, HR and finance related oversight and support, and fee covers support unit costs.

**Physical Resources:** The microcredentials will be offered online; therefore, no new space is required. Since the Director will be hired from the Department, they will already have workspace in the Communication Research Library where the Centre for Health Economics and Policy Analysis (CHEPA) offices are located. Further, the Department supports flexible work, and some work may be done from home.

**Financial Resources:** The non-academic microcredentials in HTA will be self-funded. Tuition will make up the bulk of the revenues. Beyond start-up costs (e.g., for developing content), the largest expenses are for the salary of the Director (for managing the microcredentials) as well as the administrative costs for CPD (for housing the microcredentials) and HEI (for HR and financial oversight).

The non-academic microcredentials in HTA will exist outside of current graduate and undergraduate program offerings. Individuals registered in a non-academic microcredential are classified as 'Learners' (not 'Students') at McMaster University. Learners do not have access to University resources or any University service which a McMaster student pays supplemental fees alongside tuition (e.g., Libraries, University Technology Services, Student Affairs, Registrar's Office, School of Graduate Studies, Pulse Fitness Centre). The CPD, where the program is housed, will assume responsibility for managing the admissions process and maintaining learners' records. Therefore, the impact on McMaster University resources is expected to be minimal.

## **8.2 LIBRARY, TECHNOLOGY, AND LABORATORY RESOURCES**

The non-academic microcredentials in HTA will be offered solely online using platforms such as fac.dev and Zoom. The University currently has a Zoom license for all McMaster instructors. Learners will be required to purchase their own Zoom license as these will not be provided by the University. Learners will not require access to the Health Sciences Library at McMaster University nor other any other library, technology, or laboratory service (including wireless connectivity) to complete a microcredential.

## **8.3 FACULTY**

The Director and Dr Feng Xie will lead the development of the microcredential content and teaching activities. With approval of the Chair, other faculty members of the HEI Department will contribute to the microcredentials by helping to provide input (e.g., by reviewing PowerPoint slide decks) or deliver content (e.g., by attending a live Q&A session on Zoom). The faculty have extensive expertise in the core HTA methodologies and educating students and healthcare professionals. We do not anticipate that these contributions to the HTA microcredential program would have significant impact on the workload of the full or part-time faculty members in the Department.

## **8.4 STUDENT FINANCIAL SUPPORT**

Microcredentials will be fully self-funded and learners will not be seeking financial support from McMaster University.

## **8.5 FACULTY RESEARCH FUNDING**

Not applicable. The non-academic microcredentials in HTA are not research focused.

## **8.6 SUPERVISION**

The non-academic microcredentials in HTA are not part of an academic program and therefore will not require student supervision. Instruction of the microcredentials will be led by two faculty members in the HEI Department (Drs Feng Xie and Brittany Humphries), with support from other faculty as necessary.

# **9 QUALITY AND OTHER INDICATORS**

## **9.1 ACADEMIC QUALITY OF THE PROGRAM**

The non-academic microcredentials in HTA will draw on methods used by the HEI Department's Health Research Methodology program to assess quality of its programming. Evaluations will be administered at the end of each microcredential and

faculty will discuss quality improvement as necessary. Metrics such as enrollment, completion rates, and time-to-completion will be tracked to inform administration.

## 9.2 INTELLECTUAL QUALITY OF THE STUDENT EXPERIENCE

The HTA program was one of flagship programs in the Department of HEI at McMaster University. Today, McMaster University is considered to be a world leader in the field of HTA due to faculty's contributions to the development of evidence-based medicine and HTA. The non-academic microcredentials in HTA will leverage the Department's success in this field. It will ensure that the content from each microcredential meets the rigorous intellectual standards that the Departments is known for, and that learners have an opportunity to engage with thought leaders in the field.

Beyond acquiring knowledge, a key objective of the program is to facilitate the development of applied skills. To this end, faculty with professional experience conducting HTA in a real world setting will also contribute to the development and delivery of the microcredentials. This will ensure that the content and evaluations are tailored to the needs of our target learners - who are seeking to develop practical skills and the mindset required to conduct HTA.

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DeGroote School of Business

# 2024 Planning Report



## Welcome to DeGroote

At the DeGroote School of Business, we impact business through cutting-edge research and transformative educational programs. Our commitment is to create positive change in business and society, aligning with McMaster University's vision of a brighter world. As innovators and collaborators, we cultivate talent for businesses, organizations, boards and communities.

The DeGroote School of Business has a long history at McMaster University. From undergraduate courses in commerce in the Department of Economics to expanding a variety of business courses in the Department of Political Economy, business has been an important component of learning at McMaster. In 1992, the DeGroote School of Business was renamed in honour of a generous donation from Canadian entrepreneur Michael G. DeGroote. This renaming marked a significant milestone, as it became the first named business school in Canada. Michael G. DeGroote's commitment to education and innovation remains a cornerstone of the school's legacy.

Our vision, mission and values can be summarized in one simple word: impact. From students and our community to business and society, DeGroote's impact is felt everywhere.

**Our Vision:** open minds, transform lives, build sustainable communities, and contribute to positive change in business and society.

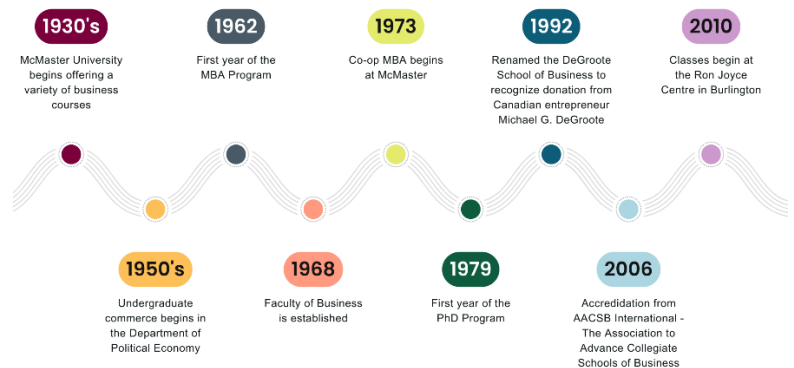
**Our Mission:** make a meaningful impact through knowledge creation, student-centred learning, and community engagement.

**Our Values:** Collaboration. Community. Inclusivity. Innovation. Integrity.

As a business school, it is imperative that we stand at the forefront of change. We cannot watch the world evolve in front of us without taking action to ensure our students are being exposed to the research, knowledge, skills and values needed to take them beyond the classroom. As a top-tier business school in Canada, this should be the expectation, not the exception.

To help shape a better tomorrow, we are focusing on digital transformation, entrepreneurship, health innovation and sustainability. We are investing in experiential learning and taking new leaps forward in the use of digital technologies and artificial intelligence, so our graduates are even better prepared for evolving business landscapes.

DeGroote is committed to inspiring the next generation of leaders.





## Introduction to Our Program Offerings

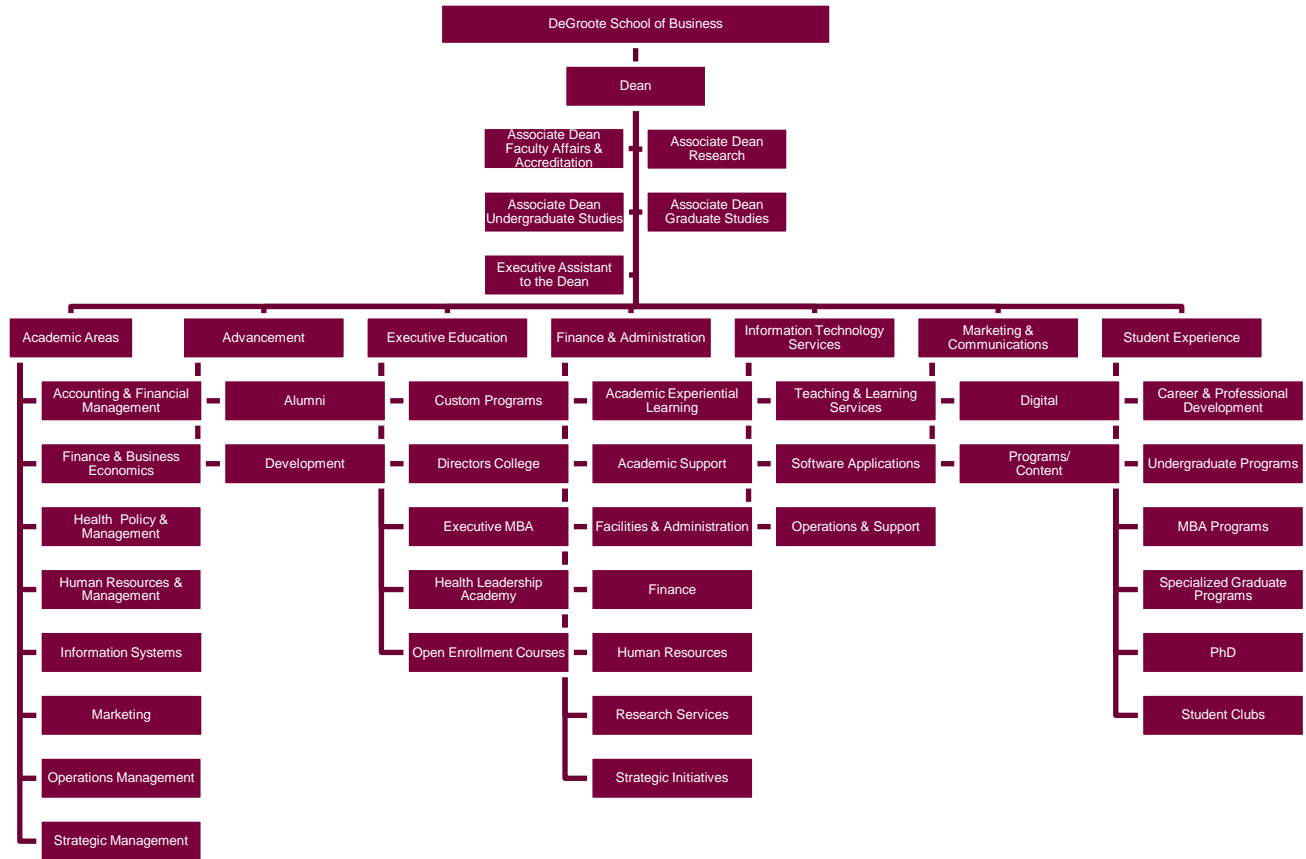
DeGroote offers a range of business, interdisciplinary, and executive programs. They include:

- Undergraduate Programs:
  - Bachelor of Commerce (BCom)
  - Bachelor of Commerce in Integrated Business and Humanities (Honours)
- Graduate Programs:
  - Graduate Diploma in Professional Accountancy
  - Master of Business Administration
    - Accelerated
    - Co-op
    - Full-Time
    - Blended Learning
  - Master of Finance (MFin)
- Interdisciplinary Programs:
  - MSc in eHealth
  - MSc in Global Health
  - Masters of Health Management (MHM)
- PhD
- Executive Programs:
  - Executive MBA
  - The Directors College
  - Health Leadership Academy
  - Executive Education

## Our Organizational Structure

The DeGroote School of Business is organized around eight academic areas and six administrative departments. We are a total complement of 233 individuals, consisting of 101 faculty and 132 staff (organizational chart below).

We have just concluded the second year in our three-year faculty expansion plan developed in 2022. In total, we have welcomed 26 full-time faculty members into DeGroote. The new faculty hired will support our strategic plan in research and teaching, will reduce our reliance on sessional instructors, and are critical for supporting our continued competitiveness.



## Key Accomplishments

DeGroote has celebrated accomplishments under each of McMaster's Institutional Priorities which our strategic plan is aligned with.

### Priority 1: Inclusive Excellence

- DeGroote School of Business Graduate Awards for Indigenous Learners

These Graduate Awards aim to address inequities in access for Indigenous learners and to assist in removing barriers. DeGroote offers up to five (5) awards (offered at entrance in the fall term) and apply through the normal length of the program. Awards cover the full cost of tuition in a DeGroote MBA program, as well as additional related expenses up to a maximum of \$15,000 per academic year. To date, five students have been the recipients of these awards. These individuals have studied in the Accelerated, Blended Learning and Co-op offerings of our MBA.

- Introduction and Support of Student Clubs and Affinity Groups

DeGroote is proud to have supported the introduction of the DeGroote Pride Association (2024) and Black in Business (2023) student clubs at the Undergraduate level. EDI committees exist within our Student Associations.

- DeGroote School of Business EDI Committee & Resources

To assist us in achieving the EDI expectations of our strategic plan, we launched a cross-DeGroote EDI committee in 2022. Faculty, staff, and students are working in partnership to ensure our community has access to the resources, knowledge, and support needed to thread these important principles throughout all DeGroote activities. A [DeGroote EDI Website](#) was launched to support these efforts.

- Leadership of the McMaster Centre for Research on Employment and Work (MCREW)

Under the direction of Catherine Connelly, this centre unites leading McMaster researchers to address systemic barriers to building satisfying careers and generate innovations in how employers and governments can ensure access to inclusive and equitable workplaces.

- Strategic Excellence and Equity in Recruitment and Retention (STEER/R) Program Award

DeGroote obtained transitional funding in November 2022 from the Office of the Provost and Vice-President (Academic) for a DeGroote led, interdisciplinary project to advance an equity-based co-creation research centre at McMaster. The award recognized the importance of involving the perspectives and lived experiences of service users from equity-deserving groups, along with professional expertise and research evidence in service design, delivery, and evaluation.

- Introduction and Growth of the Centre for Research on Community Oriented Entrepreneurship ([CRCE](#))

The Research Centre for Community Oriented Entrepreneurship (CRCE) was born out of the Reframery initiative, led by Benson Honig, as a response to the disproportionate impact of COVID-19 on immigrant women, persons with disabilities, and minority-owned businesses. Recognizing the unique challenges and underrepresentation in entrepreneurship among these groups, CRCE aims to foster sustainable and inclusive business practices, contributing to a more equitable entrepreneurial landscape.

## Priority 2: Teaching & Learning

- Focus on Experiential Learning

DeGroote continues to expand on its successes in experiential learning, with MARS Apprentice (case challenges in the fields of marketing, advertising, retail and sales) approaching its 20<sup>th</sup> season, the Canadian Marketing League (Canada's largest marketing case competition) coming off its 15<sup>-year</sup> anniversary, and EliteSeat (industry partnered case challenges) celebrating seven competitions.

We have completed the introduction and integration of four “GR0” courses across the BCom program. These “power skills”-focused courses allow us to ensure that all Commerce students participate in a minimum of three course-supported experiential offerings. The establishment of a dedicated Experiential Learning team in 2024, and the opening of the McLean Centre for Collaborative Discovery in 2025 will enable us to expand the number, and diversity, of experiences completed.



- MBA & MFIN Program Improvements

Fall 2024 saw the relaunch of our full-time and co-op MBA offerings, incorporating feedback from faculty, staff, alumni, students, and industry. The MBA now prioritizes a team-teaching style, with a full-time faculty cohort approaching the term holistically, instead of at a course level. The MBA also highlights how each functional area of business complements and integrates with others, both through teaching (joint cases) and assessment (joint assignments). The program incorporated industry requests to build resilience, agility, and comfort with ambiguity through and intensive, experiential, GRIT (Growing Resilient Integrated Thinkers) week programming. The Fall 2024 GRIT case, developed in partnership with McMaster Nuclear Operations & Facilities, challenged students to develop novel revenue generating uses for a Small Modular Reactor (SMR) while navigating multiple unplanned interruptions.

In the Master of Finance (MFIN) program, changes were made to incorporate greater work-integrated learning opportunities and integration. The first three weeks of Fall 2024 leveraged aspects of business valuation to integrate across five courses: finance theory, accounting, statistics, economics, and financial markets. The group research report, summary communication, live presentation, and Q&A performance, all are evaluated as part of assessments for the five courses.

- Development of Microcredentials

DeGroote faculty were successful in obtaining funding for three micro credentials, independently and in interdisciplinary teams, as part of the 2024 Micro-credential Challenge Fund (MCF) Awards offered by the Ministry of Colleges and Universities (MCU). These offerings will diversify our programming and allow for experimentation with new delivery models. The micro credentials are titled: Digital Decode: Bridging the Digital Marketing Skills Gap, Foundational Competencies and Tools for Equity-Based Co-Creation, Leadership in BioInnovation and are expected to enter the market in 2025.

- National Health Fellows Program

In partnership with the Faculty of Health Sciences, DeGroote launched the National Health Fellows Program in 2023. The National Health Fellows Program connects talented leaders, representing all parts of the health system, with skilled, “new power” leaders, educators, complex change facilitators, and mentors to strengthen the networks, behaviors, and evidence-based tools needed to advance health and well-being across the broader Canadian healthcare system. To date, we have supported two cohorts of this program, and more than 30 participants.

### Priority 3: Research & Scholarship

- Success with Special Calls for Applications (New SSHRC Imagining Canada’s Future Ideas Lab, New Frontiers in Research Fund)

We are leading one of three awarded projects from the new SSHRC Imagining Canada’s Future Ideas Lab program focusing on the circular economy. We are leading one of two successful New Frontiers in Research Fund - Special Call 2022 awards at McMaster.

- Successes with Canada Foundation for Innovation Awards

Two new CFI JELF funded labs were announced in 2023, providing support for a world-class neurophysiology leadership lab and innovative solutions in support of sustainable E-commerce last-mile delivery focused

research. Additionally, the JELF funded Mobile User Experience Lab (MUXL) was launched earlier in 2023. This innovative new McMaster Digital Transformation Research Centre mobile lab advances McMaster's focus on community-based research by allowing researchers in DeGroot and McMaster to carry innovative action-based and inclusive research with mobile state-of-the-art infrastructure. Our continued success in CFI competitions positions us as the leading Business school in this area.

- Success in Sustainability-Focused Research Awards

DeGroot Faculty have been successful co-applicants on \$3,000,000 in two new multidisciplinary Ontario Research Fund – Research Excellence projects. One project aims to develop cost-competitive, home compostable and lighter single-serve coffee pods. The other aims to design and formulate sustainable polymer composites for lightweight electric vehicle components with superior fire retardancy from recycled, renewable, and waste stream feedstocks towards the redesigning of automotive vehicles. These awards build on increased publishing in Sustainability and our successful hiring of a sustainability-focused faculty cohort in 2024.

- Focus on Aging-Related Research

DeGroot was successful in coordinating a winning application for a McMaster Institute for Research on Aging Major Program of Research Award EMPOWRD – Enhancing Mobility and Participation for Older Adult Wellness through Digital Inclusion. Milena Head serves as the Nominated Principal Investigator (NPI) for this award, which is valued at \$1,048,940.

Manaf Zargoush was successful as a Co-PI for a CIHR research grant (\$600,000) which engages an interdisciplinary team of researchers to examine the prevention of Alternate Level of Care (ALC) in acute hospitals through earlier access to resources in the community among individuals at risk.

- Expanded Undergraduate Engagement in Research

We continue to expand opportunities for undergraduate students through effective utilization of our DeGroot USRA program, NSERC USRA options, and involvement in ongoing Tri-Agency grants. New Mitacs awards and opportunities via CPA (Certified Public Accountant) funding are assisting us in rounding out our opportunities to build research capacity among our undergraduate and graduate students.

#### Priority 4: Engaging Local, National, Indigenous & Global Communities

- Increased Local Participation in Curricular and Co-Curricular Projects

Our third year BCom 3GR0 course has ensured that all BCom students engage with a local community partner as part of their curricular experience. Our MBA has celebrated their largest cohort of Community Partners (30+) for the annual Pitching in for Charity competition – which pairs student teams with not-for-profits to pitch for up to \$8500 in team-identified project funding.

- Ongoing advancement of Community-Partnered Research

DeGroot's Gillian Mulvale is a Co-Investigator on a \$1.89M Public Health Agency of Canada project focused on community-partnered, tailored models of care to promote positive parenting, thriving children and health equity. Gillian will contribute her expertise in the use of the equity-centred design thinking (ECDT) approach – an adaptation and combination of human-centred design and equity-centred design thinking.

- Pursuit of International Partnerships (Enrollment)

In the last year, we've signed agreements with universities in Abu Dhabi, Egypt, Kenya and Saudi Arabia, with seven more in progress. These partnerships enable joint research, faculty and student exchanges, and credit transfers.

We aim to launch a series of 2+2 one way transfer (pathway) programs, allowing international students to complete the first two years of their DeGroote Bachelor of Commerce degree at a local partner university in their home country, before completing the third and fourth year of their program at McMaster. This reduces barriers to studying internationally, increases the diversity of our classes, and supports our recruitment activities.

- Pursuit of International Partnerships (Research)

Our researchers were recipients of several International Initiatives Micro Fund awards and a BIRMAC Project and Ideas Fund award (University of Birmingham and McMaster). Additionally, Addisu Lashitew was the recipient of a Universitas 21 (U21) and the African Research Universities Alliance (ARUA) Early Career Researcher Collaboration Award. This award is restricted to five researchers globally.

#### Priority 5: Operational Excellence

- Optimization of DeGroote Teaching Plan

We have, and continue to focus, on optimizing our Teaching Plan to reduce the number of low-enrollment offerings, maximize courses taught by our full-time faculty complement, and be fiscally prudent.

- Optimization of Career Progress & Merit

We have made good progress on improving our Career Progress & Merit process, with the intention of improving and digitizing this process.

- Financial Solvency

Our beginning efforts to contain costs have proven successful as we realized a small surplus to end fiscal 2024. Our budget planning indicates that we can expect a deficit in fiscal 2025, similar to other Faculties on campus and other business schools across our sector, and, to avoid the deficit materializing or reduce it to the most extent possible, we are actively working to contain costs. Simultaneously, we are working aggressively to increase our revenue generating activities, which are outlined in our key priorities below.

## Key Priorities

Our key priorities are driven by [DeGroote's strategic plan](#), launched in 2023 and attached as Appendix 1, and complement McMaster's priority areas.

- **DeGroote Priority:** Deliver innovative courses, integrated programs, and co-curricular activities that are contemporary, global in nature, and in line with the evolving needs of business and society.

*New Programs:*

Master of Management in AI and Analytics (MM, AI&A)

This full-time pre-experience program will provide students with the work-integrated learning and knowledge base required to be successful in the field of applied AI and Analytics. The program will also offer a bridge pathway, enabling students from non-STEM backgrounds to enroll. The MM, AI&A is on track to launch in Fall 2026. This will be a cost-recovery program.

BLPT Master of Management in AI and Analytics (BLPT MM, AI&A)

This blended part-time working professional program will allow students to develop the skills needed to lead projects and manage teams that are leveraging applied AI and analytics tools and methodologies. These students are likely to have begun their careers prior to the AI and analytics boom. The BLPT MM, AI&A is on track to launch in Winter 2026. This will be a cost-recovery program.

In addition to these upcoming offerings, DeGroote is expanding its executive education offerings, exploring joint Masters of Nuclear Leadership and Master of Science in Planetary Health programs with the Faculties of Engineering and Science, joint undergraduate offerings with the Faculty of Health Science and Faculty of Science. These will all be cost-recovery programs. In addition, an experiential focused Entrepreneurship pathway that complements the Innovation minor is currently being developed.

*Experiential Education & MCCD:*

In 2025, the new McLean Centre for Collaborative Discovery (MCCD) will open as the premiere academic destination for students to discover, learn and collaborate. There are two key cornerstones of this new space:

**Experiential Learning:** Students will learn through authentic engagement with real problems and partners. This focus on experiential learning and collaborative problem-solving will equip students with the skills needed to help address community, industry and societal challenges.

**Collaboration:** Students will learn by working with fellow students across DeGroote and McMaster, in addition to working with faculty, staff and community and industry partners.

Hands-on learning will take place through 10 unique learning hubs which are the driving force behind MCCD's overall vision for collaborative discovery. These hubs include: Allen H. Gould Trading Floor, Data Analytics and AI Hub, Design and Innovation Hub, KPMG Ignition Lab, Marinucci Entrepreneurial Studio, Power Corporation Leadership Hub, Rapid Prototyping Lab, Sales and Marketing Analytics Hub, Social Impact Hub, Sustainable Futures Hub.

These dynamic learning spaces will provide an active learning environment for students to discover business principles, new ideas and interdisciplinary perspectives – so they can develop skills, integrate knowledge from courses and gain expertise on a range of areas.

- **DeGroote Priority:** Pursue and support growth in research funding, infrastructure, and impactful dissemination.

DeGroote is proud to be part of the Planetary Health initiative for McMaster University. The three Deans from Business, Engineering and Science are co-championing this initiative in the Brighter

World Campaign. Our Associate Dean, Research, Elkafi Hassini serves as Academic Lead for this initiative. Working with our partners in Engineering, Science and University Advancement we have engaged faculty members from the three faculties and beyond, and are developing interdisciplinary programs, as well as plans and priorities for fund raising.

- **DeGroot Priority:** Strengthen Relationships with Prospective/Current Donors to Align with Faculty Priorities (Stewardship)

We are investing heavily in rebuilding our Advancement operations. This includes three newly created roles (Executive Director, Associate Director – Development, Associate Director – Alumni Relations). This expanded team will be critical in realizing our ambitious fundraising plans in years to come. Engagement with our Alumni base is also essential to realizing the building of the McLean Centre for Collaborative Discovery and will continue to be key to achieving the vision of a highly experiential, community integrated, collaborative space.

- **DeGroot Priority:** Promote innovation, evidence-based decision making, and effective stewardship of resources in all our processes.

DeGroot is currently undergoing a review of its TA support model, aiming to better align support resources and experience levels to course enrollment. We anticipate that this will result in a better and more equitable TA allocation process, reduced expenses, improved support for non-traditional delivery models, without impacting the experience of our students.

## Three Year Outlook

We have summarized key milestones in the below chart.

2024	2025	2026
<ul style="list-style-type: none"> <li>• Refreshed MBA offerings (FT &amp; Co-op) are introduced to the market</li> <li>• Introduction of new DSB Advancement structure</li> <li>• CPM improvements identified</li> <li>• Optimization of teaching plan continues</li> </ul>	<ul style="list-style-type: none"> <li>• McLean Centre for Collaborative Discovery (MCCD) opens</li> <li>• MCCD Hub programming and classroom integrations begin</li> <li>• Refined TA allocation model is implemented across the School</li> <li>• Entrepreneurship-focused pathway introduced</li> </ul>	<ul style="list-style-type: none"> <li>• Master of Management degrees launch</li> <li>• Joint DSB-FHS and DSB-FS undergraduate degrees developed are being advertised</li> </ul>

The next three years promise to challenge us to think innovatively and work collaboratively in an increasingly changing environment. By embracing interdisciplinarity, partnerships, and keeping in our priorities, we are confident that we will continue to contribute strongly to the University’s performance and culture.