



MEMORANDUM

To: Executive Committee of Faculty Council (November 24, 2021)
Faculty Council (December 16, 2021)

From: Professor Dionne Aleman
Associate Dean, Cross-Disciplinary Programs

Date: December 1, 2021

Re: Participation in Proposed Tri-Campus Minor in Global Leadership

REPORT CLASSIFICATION

This is a major policy matter that will be considered by the Executive Committee for endorsing and forwarding to Faculty Council for vote as a regular motion (requiring a simple majority of members present and voting to carry).

BACKGROUND

At home and abroad, instructors, administrators and student experience leads are rethinking how the University of Toronto can provide students with opportunities to acquire global leadership skills and the ability to collaboratively address issues of global relevance.

A tri-campus Minor in Global Leadership is proposed to complement, integrate and augment the current curricular offerings available in global and international studies within divisions and Faculties at the university. Offering an interdivisional and multidisciplinary curriculum with experiential learning opportunities, the minor will develop students' collaborative global leadership skills and their capacity to critique what global leadership is and how it is understood and challenged in diverse disciplines and contexts.

PROCESS AND CONSULTATION

The proposal for a tri-campus Minor in Global Leadership has been reviewed by and/or received input from all participating divisions (UTM, UTSC, FAS, FASE, KPE, Daniels), global leaders from across the university, tri-campus student focus groups, and others. From within our Faculty, the proposal has been reviewed by and/or received input from the Centre for Global Engineering; International Virtual Engineering Student Teams Project (InVEST); Troost Institute for Leadership Education in Engineering; and the FASE Undergraduate Curriculum Committee.

RECOMMENDATION FOR COUNCIL

THAT participation of the Faculty of Applied Science & Engineering in the tri-campus Minor in Global Leadership, as described in Report 3700 Revised, be approved effective September 2022.

University of Toronto Major Modification Proposal

New Freestanding Minor Where There is No Existing Specialist or Major

Proposed:	Minor in Global Leadership
Department/Unit (if applicable):	Cross-Disciplinary Programs Office (CDPO)
Faculty/Academic Division:	Applied Science and Engineering (FASE)
Faculty/Academic Division Contact:	Prof. Dionne Aleman, Associate Dean, Cross-Disciplinary Programs
Department/Unit Contact:	Caroline Ziegler, Faculty Governance and Programs Officer Sharon Brown, Assistant Director, Cross-Disciplinary Programs Office
Version Date:	December 1, 2021

1. Summary

The 21st century has seen a rise of populism, inward looking and protectionist trends. These pandemic times highlight how countries around the world have made choices to become more inward looking or more collaborative in addressing the global crisis. Lack of leadership, vision and coordination has facilitated COVID-19's spread, and the virus has magnified and revealed inequities grounded in systemic discrimination. **Now, more than ever, the world needs principled, inclusive and empathetic global leaders.**

At home and overseas, instructors, administrators and student experience leads are all rethinking how we can provide students with opportunities to acquire global leadership skills and the ability to collaboratively address issues of global relevance. This includes knowledge, experiences, competencies and agility to address global issues, the ability to critique approaches to leadership and change in the global context, values for reciprocal and collaborative global partnerships, and foresight of the limitless potential in a rapidly changing world. As a part of the *Global U* suite of curricular and co-curricular offerings, in September 2019, U of T launched the Global Scholar and Global Citizen initiatives to promote international learning within and beyond the classroom setting. **This is a proposal to introduce a new freestanding Minor in Global Leadership.** It is proposed as

the third option of *U of T Global U*, with scaffolded and sequenced academic courses and embedded global experience (locally and/or abroad).

This Minor in Global Leadership will develop U of T's first tri-campus, interdivisional, multidisciplinary undergraduate community of diverse and globally agile, problem solvers. It will leverage the strengths of the University of Toronto, including the diversity of the student body, tri-campus strengths for experiential learning, and opportunities for global engagement, both locally and abroad.

Relationship to other programs: This proposed minor will augment the suite of undergraduate curricular offerings across the University in global and international studies, including Global Asia Studies (University of Toronto Scarborough), Global Health (Faculty of Arts & Science), International Affairs (University of Toronto Mississauga), International Development Studies (University of Toronto Scarborough), International Relations (Faculty of Arts and Science), and Munk One (2.0 FCE for Year 1 Faculty of Arts and Science students). **Within the Faculty of Applied Science and Engineering, we draw upon the existing set of undergraduate courses from the Centre for Global Engineering as well as global capstone options within APS490Y and departmental capstone courses.**

Specifically, **this proposed Minor in Global Leadership is distinguished by its emphasis on the critical and multidisciplinary focus on leadership in a global context**, the experiential-based development of competencies in collaborative global leadership, and the intentional pan-university administrative structure with a tri-campus interdivisional and interdisciplinary cohort of students.

Students in eight divisions can currently receive a "*Global Scholar*" notation on their transcript by completing a curated set of courses offered by their program or Faculty and receive a Global Scholars Certificate. Examples include, the Certificate in Global Development, Environment and Health (University of Toronto Scarborough), Certificate in Global Engineering (Faculty of Applied Science and Engineering), Certificate in Global Studies of the Built Environment (Daniels Faculty of Architecture), Certificate in Global German Studies (Faculty of Arts and Science), and the Certificate in Global Kinesiology and Physical Education (Faculty of Kinesiology and Physical Education). By demonstrating three competencies achieved through co-curricular activity participation and completing a self-reflective workshop, students can also receive a "*Global Citizen*" designation on their co-curricular record (CCR). In its first year, 235 students completed three competencies towards their designation.

This Freestanding Minor in Global Leadership is distinguished from the Global Scholar Certificates and Global Citizen designation based on its learning outcomes and curricular structure. **The goal of the Minor in Global Leadership is specifically to develop students' collaborative global leadership skills and capacity to critique what is global leadership and how this concept is understood and challenged in diverse disciplines and contexts.** More specifically, this Minor in Global Leadership integrates theory and practice, provides a forum for students to engage with, critique, and interrogate the

concepts of “global” and “leadership”, and provides a structured curricular pathway for advancing global leadership development. Other structural differences include a higher course-weighting requirement (4.0 FCE as opposed to 2.0 FCE of most certificates), its community-based structure, and the combination of sequenced core Global Leadership (GLB) courses across three years, with divisional electives.

The minor will resonate with existing programs at the University of Toronto, and (based on tri-campus decanal, divisional, and student consultations), it will appeal to students from a variety of disciplines. The minor will draw on tri-campus and interdivisional expertise, with the intention of fostering critical interdisciplinary student critique, engagement and collaboration. **All of the divisional units cited above were consulted in the preparation of this proposal.**

Impetus for its development: The University of Toronto has longstanding academic strengths in globally-oriented, interdisciplinary, and experiential education. This proposed Minor in Global Leadership was conceptualized in recognition of the growing need for collaborative global leaders, to support and deliver on the priorities of the University of Toronto, and importantly, to prepare student for their potential role as future leaders in a global world, **with a focus on principled, inclusive, and empathetic understandings of global leadership.**

Distinctive elements: This Minor in Global Leadership involves tri-campus collaboration in offering an interdivisional and interdisciplinary curriculum with experiential learning opportunities. It will include a core series of three global leadership (GLB) courses that are sequenced, experiential and comprised of a tri-campus, interdivisional cohort, and will be augmented by electives within each division.

2. Effective Date

September 2022

3. Academic Rationale

A Freestanding Minor in Global Leadership is proposed to complement, integrate and augment the current curricular offerings available in global and international studies within divisions and Faculties at the University of Toronto, as well as existing co-curricular offerings for global student experience. It is distinguished from existing offerings by its emphasis on the critical and interdisciplinary focus on leadership in a global context. The goal of this new minor program is to support critical interdivisional, multidisciplinary development of competencies in collaborative global leadership with a community-based model and a combination of core experiential Global Leadership (GLB) courses supplemented by divisional electives.

Mode of Delivery: The Minor in Global Leadership will embrace technology to deliver flexible modes of teaching and learning, as well as a range of mediums for student collaboration. In order to support the active and inclusive participation of students from all three campuses, core GLB courses will be primarily delivered **online via synchronous and asynchronous course delivery methods with regular in-person meetings** with guest speakers and embedded social activities to build student connections, commitment and engagement. Efforts will be made to support travel to the respective campuses for in-person activities, with accommodation options for those unable to attend in-person course activities due to personal extenuating circumstances. Through the use of student-centred and universal instructional design approaches, the core GLB courses will intentionally foster both in-person and remote student engagement with scaffolded reflections, discussions, problem-solving, group work and interactive activity. Each core GLB course will have at least one major in-person student event where the cohort comes together in-person as a class, in addition to in-person activities that may occur in smaller groups or with community organizations (GLB201 = onboarding retreat; GLBC01 = community engagement; GLB401 = capstone presentation event).

Context: Collectively, the institution has longstanding academic strengths in globally oriented, interdisciplinary, and experiential education. This proposed Minor in Global Leadership was conceptualized in recognition of the growing need for collaborative global leaders, to support and deliver on the priorities of the University of Toronto, and importantly, to prepare students for their role as future leaders in a global world, with a focus on principled, inclusive, and empathetic understandings of global leadership.

Not long ago, President Gertler declared: *“Our outlook is now decidedly international. It is driven by our desire to help our students develop the global fluency and cross-cultural perspectives they’ll need to lead us forward.”* President Gertler has also articulated strengthening international partnerships, leveraging our location, and reinventing undergraduate education as [U of T priorities](#). This Minor in Global Leadership is also in alignment with the U of T mission as stated in the [Statement of Institutional Purpose](#): “The University of Toronto is committed to being an internationally significant research university, with undergraduate, graduate and professional programs of excellent quality.”

The current COVID-19 context has highlighted that more than ever, the world needs global leadership and principled, inclusive, and empathetic global leaders. In this context, the proposal for a Minor in Global Leadership to develop students’ competencies in collaborative global leadership is highly relevant and timely. The current pandemic has also fueled a wealth of innovation and education in online asynchronous and synchronous course delivery methods. Ample training and resources have been recently developed for instructors at the University of Toronto, and many instructors are becoming more comfortable using a combination of in-person and online methods for course delivery. This is extremely helpful in supporting the tri-campus vision for this Minor in Global Leadership, and the desire to create a curricular offering that is accessible to a diverse student cohort that would be participating in the core

courses from across all three campuses. Also, as a result of the pandemic, educators in the field of international student experience are rethinking how global experience may be facilitated locally, including through global classrooms, local global experiences, and technologically supported partnerships with individuals and organizations abroad. All of these advancements provide valuable foundations for developing the core courses in this Minor in Global Leadership so that they may be accessible for the tri-campus cohort with a wealth of options for facilitating student engagement with one another and with local and global communities.

Distinctiveness: This Minor in Global Leadership involves tri-campus collaboration in offering an interdivisional and multidisciplinary curriculum with experiential learning opportunities. **As students pursue this minor while completing a degree in their own discipline, an unprecedented collision of viewpoints takes place. The whole is greater than the sum of the parts.**

This freestanding minor will:

- use a tri-campus interdisciplinary, interdivisional delivery model
- combine the unique academic strengths of each U of T campus
- infuse considerations for equity, diversity and inclusion throughout
- celebrate and build upon the student diversity of our University and city region
- develop principled, inclusive and empathetic understandings of global leadership

A core series of global leadership (GLB) courses (2.0 FCE) will be augmented by electives within each division (2.0 FCE) for a total of 4.0 FCEs. Students will apply in year 1 to start in year 2.

- Year 2: GLB 201H5 (0.5 FCE) Global Leadership: Past, Present, Futures
- Year 3: GLB C01H3 (0.5 FCE) Global Leadership: Theory, Research and Practice
- Year 4: GLB 401Y1 (1.0 FCE) Global Leadership: Capstone Project
- Divisional course electives (2.0 FCE)

Divisional course electives may include any combination of courses with global content, global classrooms and/or global experience. While global experience may not be required, at least one global experience is strongly recommended for students in the cohort. Efforts will be made to reduce barriers for students engaged in the Minor in Global Leadership to complete a global experience outside of Canada, should they be interested.

4. Need and Demand

The proposed Minor in Global Leadership will fulfill many important needs. Interdisciplinary education and experience in global leadership will offer students academic and professional advantages through enhanced understanding and competencies in global leadership. In a recent *Times Higher Education* employability

ranking, it was noted that more than two thirds of the firms they surveyed cited interdisciplinary or problem-based learning as a “very important measure... more than any other issue.” Furthermore, a wealth of research has correlated leadership and global fluencies, involving new worldviews, mindsets, perceptual acumen and perspectives, with graduate employability in the 21st century. It is expected that this connection will only increase in the post COVID-19 era.

The University of Toronto attracts the world’s best minds and the diversity of our international student population is enhanced by recruiting top students from around the globe. The University of Toronto is home to international students from 161 countries. With such a diverse and globally minded student body, there is an untapped opportunity for engaging domestic and international students with diverse perspectives, backgrounds and experiences together to engage in critical teaching and learnings on global leadership.

In looking at the demand for global student experience, prior to the COVID-19 outbreak, U of T was on track for 24% of its total undergraduate student population to participate in learning abroad by the time they graduate, signaling student interest and demand for global education and experience.

The Office of the Vice-President International (OVPI) is supporting efforts across the University to make global education an integral and compelling part of the overarching value proposition of the University of Toronto. OVPI recently collaborated with Brand Marketing and Enrolment Services on qualitative research to inform successful efforts around global education. The research aimed to ensure that the strategic positioning and messaging about global education at the University of Toronto are grounded in a deep understanding of prospective student insights and perspectives on global education. Forty-two in-depth, one-hour interviews were conducted with high performing high school students in Toronto, Calgary, Vancouver, San Francisco, Boston and NYC. The qualitative research conducted offered valuable insights that have guided plans OVPI develops with stakeholders across the University, including the development of this freestanding Minor in Global Leadership. Insights from the research included recommendations to:

- Differentiate U of T’s comprehensive global education from ubiquitous study abroad programs at other top universities.
- Emphasize that U of T’s global education is an integral part of a degree that builds toward students’ professional goals and aspirations.
- Emphasize that U of T curates international experiences with students specifically to build toward their professional goals.
- Emphasize and provide examples for how U of T’s global education also happens on campus, where students gain global skills, build networks among international colleagues and gain recognition for their achievements.

In conducting an internal, environmental scan of undergraduate degree programs, certificates and minors offered at U of T, it was concluded that there is no

interdisciplinary, interdivisional tri-campus global leadership program. **This is the first of its kind at the University of Toronto.**

An external, environmental scan of programs offered at other North American universities and a literature review of academic work regarding Global Scholar Programs were conducted to ensure the desirability and comparability of the new minor. The external scan results indicate steadily increasing demand and consistent enrolment in global leadership offerings at leading North American universities. When consulting corporate partners, they expressed the need for internationalized graduates, and were highly enthusiastic about the initiative.

5. Admission/Eligibility Requirements

This Minor in Global Leadership will follow the admission process and eligibility requirements set by the Global Leadership Program Committee as outlined below. This is a departure from FASE's typical process, but necessary in light of the specialized nature of the program and limits on enrollment.

The minimum requirement for eligibility for the Minor in Global Leadership is modified GPA of 2.7 (B-/70%) based on a student's top 3.0 FCE, and second year standing by the time of GLB201 course enrolment. Students require at least three years in sequence in order to complete the core courses, so students in third year standing or beyond by the time of GLB201 course enrolment will only be considered in cases where the student applicant requests an exception to this requirement and can demonstrate that they have at least three more years of study remaining (e.g., program transfer, part-time study). If in future years, course scheduling makes it feasible for a student to complete the GLB core courses in a two-year timeframe, eligibility will include students with third year standing at the time of GLB201. Beyond meeting the minimum eligibility criteria, admission decisions will be based on an assessment of student interest, experience, promise of future leadership potential (considered in the broadest sense), and the diversity the student brings to the perspectives of the collective class. Admission may be competitive if demand exceeds the maximum class size. The initial tri-campus cohort will be 100 students, with a tri-campus breakdown set as 25 students from University of Toronto Mississauga, 25 students from University of Toronto Scarborough and 50 students from University of Toronto St. George Campus (with the possibility for the program to scale over time). **Students from FASE will be included in the St. George Campus cohort.** Students will apply in year 1 to start in year 2.

Applications will occur through a common application process and will be overseen by a Global Leadership administrator supporting the freestanding Minor in Global Leadership across all participating divisions. A central webpage will exist with detailed application instructions and can be linked to by all participating divisions. Prospective students will apply by requesting the minor through ACORN and submitting a supplemental application package to a common email address. All applications will be downloaded

from ACORN and supplemental application packages will be collected and collated by the Global Leadership administrator.

Applications will include submission of an unofficial transcript and responses to short answer questions, including written and/or video submission. Review of applications and enrolment selection will also be supported by the Global Leadership administrator.

The freestanding minor will be overseen by a tri-campus *Global Leadership Program Committee (GLPC)*. The GLPC will meet at least four times per year and will provide curricular oversight, including discussion on curricular advancements, review of course outlines, and will support quality assurance reviews [See Sections 6 & 10 below]. The CWG membership will include:

- One faculty representative from each participating division
- One senior director, global learning opportunities
- Other ex-officio members may be included from participating divisions, as well as members adding complementary perspectives and expertise. Student members should be added, once feasible.
- The chair is to be selected from amongst the membership with the intention of rotation every 2 years.

Admission decisions will be delegated by the GLPC to a designated admissions committee. This tri-campus admissions committee will review student applications and make admission decisions in line with agreed upon selection criteria and divisional quotas. This process is intended to support the admission of a diverse interdivisional student class, and to reduce the workload for the divisions. Students will apply and be accepted in the winter term of the previous academic year. Specific application and decision deadlines will be determined annually in consultation with participating divisions and in line with existing admission timelines and systems. **Flexibility exists for application and admission dates to be set on a per division basis, as needed.** The timeframe is established in order to have admission decisions communicated to students in advance of divisional student course registration dates (e.g., early July). The central website will be updated in October of each academic year with the application instructions and deadlines for the upcoming admission cycle. It is anticipated that there will be only one request period (e.g., first request period only).

Following the confirmation of admission decisions, the Global Leadership administrator will indicate on ACORN whether a student has been invited or refused. There will be flexibility for divisions who wish to do this directly.

All divisional registrarial offices will be able to access this information via ACORN and see who has been accepted. In order to complete this task, a unique subject post for the minor will be created and attached to each participating academic unit. It is the Office of the Registrar in the student's Faculty that will be responsible for the subject post, specifically confirmation of completion for final transcript notation.

Once accepted into the minor, applying an E-enrollment indicator, students will only be able to get into the core GLB courses by the department doing the enrolment. The Global Leadership administrator will automatically enrol all accepted students into GLB201, and liaise with the course department administrator, as required. This will also occur for GLBC01 and GLB401 following successful completion of the pre-requisite course. If a student decides to drop a core course they can do so by contacting the Global Leadership administrator.

An active tri-campus recruitment strategy will be implemented with the aim of recruiting a diverse cohort of qualified students, including those who haven't yet had the opportunity to see themselves as future global leaders, and those who may be dissuaded by the title of the minor itself. There will be an intentional and strategic focus on the recruitment of students who identify as Black, Indigenous and persons of colour (BIPOC), as well as the recruitment of a deliberate range of domestic and international students who come from diverse disciplines and programs of study. The recruitment strategy will also be implemented and supported by the role of the Global Leadership administrator. More information on this position, and how this role will liaise with divisional support offices is included in Section 11 Resources.

6. Requirements for the Minor

The Minor in Global Leadership consists of three required courses (2.0 FCE) and divisional course electives adding up to 2.0 FCE, for a total of 4.0 FCE. Core GLB courses are not open to students outside the Minor in Global Leadership.

Core and elective courses completed as a part of the Minor in Global Leadership may be counted towards degree requirements and towards other program or certificate requirements, subject to existing divisional regulations about the number of distinct credits required for the degree, and subject to existing program or certificate requirements. In FASE, once the core course descriptions have been finalized, the courses will be reviewed to determine if they are eligible to count towards CEAB Complementary Studies or Humanities and Social Sciences elective credits. Depending on the classification of the courses, some of these courses may have to be taken as a Free Elective or Extra.

The three core courses of the minor are intended to be taken in 2nd, 3rd and 4th year, respectively. Engineering students who do not have elective spaces in the appropriate terms may have to overload to complete the courses.

Any student who wishes to pursue both the Minor in Global Leadership and a Certificate in Global Engineering will be limited by the usual FASE overlap rules limiting a course to one minor or certificate unless the course is "Extra". An "Extra" course may be used towards both the minor and certificate.

The three required core courses are sequenced, interdisciplinary, pan-university courses. Each course follows an intentional sequence designed to prepare students for increasing levels of direct and deep engagement with global leadership, and is intended to bring students from across disciplinary perspectives together as a cohort throughout one or more semesters each year. These new core courses designed specifically for the Minor in Global Leadership, include:

GLB 201H5 (0.5 FCE) Global Leadership: Past, Present, Futures

- Learning Outcomes: Explore and interrogate globalization and understandings of leadership across time, context and lenses
- Course Delivery: Primarily online (sync/async) course delivery with regular in-person meetings (with embedded social activities to build cohort connections, commitment and engagement)
- Learning Activities: Self-reflection activities
- Student Experience: Onboarding retreat (prior to/early in Fall term)

GLB C01H3 (0.5 FCE) Global Leadership: Theory, Research and Practice

- Learning Outcomes: Prepare students to apply new principled, inclusive and appreciative approaches to the practice of global leadership.
- Course Delivery: Primarily online (sync/async) course delivery with monthly in-person meetings
- Learning Activities: Group-based activities with reflection on effective communication and collaboration
- Student Experience: Community engagement --- Global focused (with a local or global community partner)

GLB 401Y1 (1.0 FCE) Global Leadership: Capstone Project

- Learning Outcomes: Collaborative multidisciplinary problem-solving, with application to real-world problems with global reach. Students learn to take a broad view of problems and to develop the perspectives and dispositions needed for leadership.
- Course Delivery: Seminar discussions, group work, and meetings with experts or stakeholders. Capstone presentation event scheduled at the end of the course.
- Learning Activities: Group-based capstone projects with engagement of tri-campus faculty advisors. Students will conduct research on the state of the field, develop reports, participate in group conversations and roundtables, learn to analogize to other fields, and learn how to identify and address complex problems with global reach.
- Student Experience: Multidisciplinary capstone projects, with faculty mentors and connected with public- or policy-facing partners. This may include community engaged learning, or organization partnered projects. Students will collaborate with peers on a range of substantive issues, all with a focus on addressing real-world problems with global reach, relevance, or implications.

The courses GLB201H5, GLBC01H3 and GLB401Y1 will each be delivered by one Faculty/divisional unit, and these courses will be part of all the freestanding Minor in Global Leadership (and completed by all students across the University in the Minor in Global Leadership). Once every course has run a minimum of three times in one division, there is the possibility that the courses may rotate amongst campuses or the delivery may shift between Faculties or divisions on a specific campus, as desired. The Global Leadership Program Committee (see Section 5 for GLPC membership), will allocate responsibility for each core course and approve each course as it is developed prior to normal Faculty/divisional governance approval processes.

Students then have a choice of 2.0 FCE divisional course electives. Each division participating in the Minor in Global Leadership is responsible for identifying existing divisional courses that can be counted as electives towards the minor. Divisional course electives may include a curated combination of courses with global content, global classrooms and/or global experience:

- **Global content** may take the form of global issues, topics, perspectives, and/or competency development. Global content may also include language courses and Indigenous studies.
- **Global classrooms** may take the form of course-based connections with students/scholars abroad, either in-person or online.
- **Global experience** may take the form of an internship course, [International/Indigenous Course Module \(ICM\)](#), study abroad course, or [research excursion](#), [independent summer program](#), [UTSC Arts & Science Co-op](#), [UTSC Management Co-op](#), [Global Classrooms](#), [UTM Abroad](#), [UTM International Community Connections](#), [UTM Intercultural Learning & Development in the Classroom](#), [FASE Research, Study or Work Abroad](#), [KPE Learning Abroad](#), [Reach Project](#), [International Virtual Engineering Student Teams Project \(InVEST\)](#), Global experience can also be local in select cases. While global experience may not be required, at least one global experience is strongly recommended for students in the cohort. Efforts will be made to reduce barriers for students engaged in the Minor in Global Leadership to complete a global experience, should they be interested.

FASE is basing its divisional electives on the courses comprising the Certificate in Global Engineering. Students completing the Minor in Global Leadership in FASE will take 2.0 FCE from the following elective courses. At least 1.0 FCE must come from List A.

List A

- APS299Y0 Y - Summer Research Abroad
- APS510H1 F - Technologies and Organizations in Global Energy Systems (CS elective)
- APS420H1 S - Technology, Engineering and Global Development (HSS elective)
- APS530H1 S - Appropriate Technology & Design for Global Development
- Global Engineering themed capstone (APS490Y, ECE496Y, MIE490Y, MIE491Y, CIV498H) as approved by the Director of the Centre for Global Engineering

List B (All HSS electives)

- ANT204H1 - Social Cultural Anthropology and Global Issues
- ENV333H1 - Ecological Worldviews
- GGR112H1 - Geographies of Globalization, Development and Inequality
- JGU216H1 - Urbanization & Global Change
- POL201H1 - Politics of Development: Issues and Controversies
- POL208H1 - Introduction to International Relations
- CDN268H1 - Canada and Globalization

Future electives developed within FASE or FAS may be considered for inclusion in the minor as part of the annual FASE curriculum review process.

Please see *Appendix A* for proposed calendar copy and *Appendix B* for a full list of the course numbers and titles, indicating clearly whether they are new or existing.

7. Program Structure, Learning Outcomes and Degree-Level Expectations (DLEs)

Within FASE, the Degree-Level Expectations are generally met through the students' core degree course requirements, with electives contributing to an enhanced level of knowledge and experience in these areas. The courses taken for the Minor in Global Leadership will contribute to the student's outcomes as outlined in the table below.

Note: As this is a minor with only 4.0 FCE, it is not expected that all six degree-level expectations are addressed. Accordingly, the Knowledge of Methodologies, Professional Capacity and Autonomy, and Awareness of Limits of Knowledge degree-level expectations are not included in the table below as degree-level expectations of this minor program.

Degree-Level Expectations	Program Learning Outcomes	How the Program Design/ Structure Supports the Degree- Level Expectations	How the Assessment of Teaching & Learning Supports the Degree Level Expectations
<p>Depth and Breadth of Knowledge</p> <p>Critical analysis and thinking and analytical skills are emphasized through the student's exposure to an increasingly sophisticated understanding of their program of study. Specialization within the discipline is developed through technical electives taken in the 3rd and 4th years of study.</p> <p>Breadth beyond engineering is developed through the Complementary Studies Electives as well as the Engineering Economics requirement.</p>	<p>Depth and breadth of knowledge is understood in the Minor in Global Leadership as understanding key concepts in global leadership, including approaches to understanding, preventing and addressing global issues. This includes considering global leadership from diverse cultural and interdisciplinary perspectives.</p> <p>This is reflected in students who are able to:</p> <ol style="list-style-type: none"> 1. Describe current global issues and perspectives. 2. Discuss historical and contemporary approaches to 	<p>The program design and required core course elements that ensure these student outcomes for depth and breadth of knowledge are:</p> <ol style="list-style-type: none"> 1. GLB201 and APS420/APS510/APS530 (1.0 FCE) readings and lectures related to global issues, topics, perspectives, and/or competency development. Global content may also include language courses and Indigenous studies. This includes traditional academic courses, global classrooms and/or credit-bearing academic courses with embedded global experience. 	<p>Student achievement of program learning outcomes and degree-level expectations will be assessed using:</p> <ol style="list-style-type: none"> 1. Student performance on course examinations will assess student's ability to describe current global issues and perspectives. 2. A combination of class participation, student presentations and essays will be used to assess the student's ability to discuss approaches to global leadership.

	<p>advancing change in a global context.</p> <p>3. Articulate diverse interdivisional and cultural perspectives on global leadership.</p> <p>4. Describe approaches to reciprocal, partnership-based positive social change across global contexts and disciplines.</p>	<p>2. GLB201 and APS420/APS510/APS530 class discussions.</p> <p>3. GLB201 and GLBC01 course lectures, required readings and interdivisional group work. This will also be achieved via the class onboarding retreat (GLB201) and in interactions with community members (GLBC01).</p> <p>4. GLBC01 lectures, required readings, and assignments, including participation in reciprocal and partnership-based community engaged learning.</p> <p>5. GLB401 culminating capstone project.</p>	<p>3. The assessment of ability to articulate diverse interdivisional and cultural perspectives will occur through a combination of individual and group assignments, including written reports and oral group presentations. This will also be assessed through observation of student group activities and self-reflection.</p> <p>4. The assessment of a student's ability to consider reciprocal and partnership-based approaches will be assessed by community partners based on exchanges with students, as well as student written reports, oral presentation, and self-reflections on exchanges with peers and community partners.</p> <p>5. Written and oral final capstone reports.</p>
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<p>Application of Knowledge</p> <p>The application of science and mathematics to solve problems is fundamental to all programs in Engineering and therefore is required in many of the courses within all POST. A minimum level of instruction in Engineering Science and Engineering Design is required, both of which directly involve the application of knowledge.</p>	<p>Application of knowledge is understood in the Minor in Global Leadership as the ability to critically evaluate arguments, assumptions and concepts of global leadership, ask questions and propose collaborative solutions to address issues of global relevance.</p> <p>This is reflected in students who are able to:</p> <ol style="list-style-type: none"> 1. Critique the notion of “leadership” in a global context. 2. Apply a principled, inclusive and empathetic approach to global leadership. 3. Demonstrate creativity, reciprocity and collaboration in addressing positive social change across global contexts 	<p>The program design and required core course elements that ensure these student outcomes for application of knowledge are:</p> <ol style="list-style-type: none"> 1. GLB201 lectures, class discussion and course assignments. 2. GLB201 student exchanges with peers during the class onboarding retreat. GLBC01 lectures and course readings on principled, inclusive and empathetic global leadership, as well as course assignments which require engagement in student groups and with community partners. GLB401 capstone projects conducted in interdisciplinary groups and in collaboration with global partners. 3. Group project with community (GLBC01H3), and the final group capstone project (GLB401Y1). 	<p>Student achievement of program learning outcomes and degree-level expectations will be assessed using:</p> <ol style="list-style-type: none"> 1. A combination of GLB201 class participation, student presentations and essays will be used to assess the student’s ability to critique approaches to global leadership and critique the notion of leadership itself. 2. Student’s ability to apply a principled, inclusive and empathetic approach to global leadership will be assessed based on observed interactions with peers and community partners. This will also be assessed in GLBC01 via applied examination questions and in GLBC01 & GLB401 written and/or oral group reflections. 3. The demonstration of collaborative leadership will be assessed via group final project deliverables in GLBC01 (community-engaged project) and GLB401 (capstone project). This will also be assessed through reflections on the collaborative
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		4. APS530, Global capstone and APS299Y all present further opportunities for students to apply their knowledge directly as part of the minor electives.	process employed by the student groups.
<p>Communication Skills</p> <p>The Faculty requires students to communicate information, arguments and analysis accurately and reliably, orally and in writing, to specialist and non-specialists audiences.</p>	<p>Communication skills is understood in the Minor in Global Leadership as the ability to demonstrate cultural competencies and global fluencies in communicating with peers and community partners orally and in writing.</p> <p>This is reflected in students who are able to:</p> <ol style="list-style-type: none"> 1. Practice cultural and linguistic humility and effectively communicate and collaborate across cultures and languages. 	<p>The program design and required core course elements that ensure these student outcomes for communication skills are:</p> <ol style="list-style-type: none"> 1. Individual and group work activities where students communicate and collaborate across cultures and languages (GLB201H5), communication with diverse audiences (academic and community) (GLBC01H3, GLB401Y1), and oral presentations and class discussion across all required courses. 	<p>Student achievement of program learning outcomes and degree-level expectations will be assessed using:</p> <ol style="list-style-type: none"> 1. Oral and written assignments, including observation of class participation (GLB201, GLBC01, GLB401). Observed interactions with peers and community partners will also be used to assess the student's practice of humility in collaborating across cultures and languages (GLB401 capstone project).

8. Assessment of Teaching and Learning

Methods for assessing student achievement of established program learning outcomes and degree-level expectations are outlined in Section 7 above.

Students will be assessed in the core GLB courses according to course requirements stipulated in each of the syllabi. Evaluation methods will measure the grasp of core course concepts, the ability to critically assess arguments, and the capacity to express and apply ideas to practice. The standard methods of assessments applied across the core courses include a combination of long and short form written assignments that require students to explain and critically assess philosophical arguments and developments, group and/or individual oral participation and presentation, and reflections on practice.

Notably, the capstone course provides a final summative assessment opportunity that serves to assess the student's learnings in relation to the overall program learning objectives via both written and oral assessment methods (e.g., culminating presentation and final written report).

9. Consultation

This proposal has been reviewed by and received input from:

- Global Leaders Tri-campus Vision Group
- Global Leaders Tri-campus Curricular Working Group
- Global Leadership Program Committee (Tri-campus)
- Tri-campus undergraduate student focus groups
- Consultation with all participating divisions (UTM, UTSC, FAS, FASE, KPE, Daniels)
- Consultations with experiential learning and community engagement offices
- Registrarial consultations
- Consultations with Equity, Diversity and Inclusion offices
- Office of the Vice-Provost, Academic Program
- Office of the Vice-Provost, Innovations in Undergraduate Education
- University of Toronto Communications
- Recruitment & Admissions Group
- ROSI/CAB Group
- Student Life Co-Curricular Focus Group
- Standing Commissions Updates Group
- Division of University Advancement
- Enterprise Applications and Solutions Integration & HR Technology (EASI)
- Director, Munk School of Global Affairs
- Senior Director, Centre for International Experience

Within FASE, this proposal has also been reviewed by and/or received input from:

- Amy Bilton, Assoc. Professor, Mechanical Engineering; Director, Centre for Global Engineering
- Ahmed Mahmoud, Project Manager, Centre for Global Engineering
- Elham Marzi, Asst. Professor, ISTEP; Director, International Virtual Engineering Student Teams Project (InVEST)
- Emily Moore, Asst. Professor, ISTEP; Director, Troost Institute for Leadership Education in Engineering (Troost ILead)
- David Meyer, Asst. Professor, Centre for Global Engineering and Civil & Mineral Engineering
- FASE Undergraduate Curriculum Committee

10. Resources

There will be some costs incurred for the experiential core courses. Costs for tri-campus course delivery, including student travel between campuses and associated student experience will be budgeted and recovered via the tri-campus interdivisional teaching framework and supplemented by course ancillary fees, if required, by the respective Faculty/division delivering the course. Resource implications for the divisional elective courses will be minimal as these courses are expected to be existing. There is no impact on faculty complement planning, admissions, or existing agreements with other institutions.

In order to support the administration of the minor, the hiring of one Global Leadership administrator will be required. The table below outlines the roles of the administrator and how this role intersects with divisional administrative supports with flexibility for the respective roles to vary, as preferred, on a divisional basis.

	Global Leadership Administrator	Divisional Administrator/ Registrar's Office
Task	<ul style="list-style-type: none"> - Management of the global leadership webpage and associated communication about admissions and core course information - Collection and collation of admission applications - Confirmation of admission decisions via ACORN - Supporting student enrolment in GLB core courses - Indicating completion of core GLB courses 	<ul style="list-style-type: none"> - Rules and policies of the student's division will be upheld (e.g., add/drop dates, course waivers, approval of electives, petitions, appeals) - Answering student questions about particular program requirements (divisional administrator would be able to answer questions specific to that program, including options for electives)

	<ul style="list-style-type: none"> - Administrative support of the <i>Global Leadership Program Committee</i> 	<ul style="list-style-type: none"> - Answering any questions with regards to degree completion, scholarships, accessibility, academic supports - Final decision and confirmation of program completion is with the department administrator
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10.1 Faculty Requirements

FASE is strongly committed to creating opportunities for engineering students to engage in global experiences.

The Centre for Global Engineering’s (CGEN) three undergraduate courses, APS420, APS510 and APS530 are focused on building students’ competencies in design thinking, global development, and participatory research. These courses are the foundation of the FASE Certificate in Global Engineering – U of T Global Scholar program.

Since 2014, CGEN has also sponsored 36 capstone design projects on four continents. Each year, teams of four to five students from across all engineering disciplines engage in those capstones under the supervision of CGEN-affiliated faculty. Further opportunities for global capstone research come from the Faculty’s International Virtual Engineering Student Teams Project (InVEST). InVEST’s mission is to drive the creation of inclusive, equitable and scalable opportunities that prepare students to become effective collaborators in an increasingly global and virtually connected environment. The InVEST team has supported projects both for-credit and as co-curricular experiences.

Table 1: Detailed List of Committed Faculty

Faculty Name and Rank	Home Unit	Area(s) of Specialization
Amy Bilton, Associate Professor Director, Centre for Global Engineering (CGEN)	Mechanical Engineering	Amy Bilton is the Director of the Water and Energy Research Lab (WERL), which focuses on developing innovative water and energy technologies and computer-based design methods. She has worked on development projects in Bangladesh, Vietnam, Nicaragua, and Mexico. She is the instructor APS530 and co-ordinator for FASE Global Capstone

		Projects within APS490Y, MIE490Y, MIE491Y
Elham Marzi, Asst. Professor, Teaching Stream Director, International Virtual Engineering Student Teams Project (InVEST)	Institute for Studies in Transdisciplinary Engineering Education & Practice	Elham Marzi teaches in areas inclusive of Organizational Behaviour, HRM, Strategy, and Negotiations in the Business Minor program. She has a passion for teaching and getting students engaged through active learning. She is highly interested in developing innovative teaching techniques, such as global classrooms, and strategies that can contribute to the students learning and experiences in the classroom.
David Meyer, Asst. Professor, Erwin Edward Hart Professor in Global Engineering	CGEN and Civil & Mineral Engineering	David Meyer's research focuses on urban water distribution infrastructure, and specifically how this infrastructure behaves in Mega Cities in the Global South. He is investigating new mechanisms and sensors that change the efficacy of water and sanitation globally.
Ahmed Mahmoud, P.Eng. Sessional Lecturer, Program Manager, Centre for Global Engineering (CGEN)	CGEN	Ahmed Mahmoud works closely with engineering faculty to define research initiatives which tackle major global challenges, such as food insecurity, water scarcity, and energy poverty, and he helps connect those faculty with changemakers on the ground. His research interests include engineering innovation in aquaculture, agriculture, remote monitoring and impact assessment. He is the sessional lecturer for APS420H.

10.2 Space/Infrastructure

There are no special or unique space or infrastructure requirements for this minor program. Special room bookings may be required for specific course activities (e.g., student orientation session, final capstone presentations).

11. UTQAP Process

Steps	Approvals
Development/consultation with the Global Leadership Working Group and CDPO	February 2020 – November 2021
Consultation with Dean's Office	November 2021
Endorsement of the FASE Undergraduate Curriculum Committee	November 4, 2021
Consultation with Vice-Provost, Academic Programs and Sign-off	November 19, 2021
Approval of Faculty Council	December 16, 2021
Submission to Vice-Provost, Academic Programs	December 2021
Included by Vice-Provost, Academic Programs in annual report to Committee on Academic Policy & Programs, and in annual report to Ontario Quality Council	June 2022

Appendix A: Program Calendar Listing

Course Requirements for the FASE Minor in Global Leadership

The FASE Minor in Global Leadership is part of U of T's first tri-campus, interdivisional, multidisciplinary undergraduate program. The Minor is distinguished by its critical and multidisciplinary focus on leadership in a global context. This is combined with an emphasis on developing knowledge of global issues within an engineering framework and how engineers can influence and improve conditions around the world. All undergraduate Engineering students are eligible to participate in this minor course of study, however enrollment is limited. This minor consists of 4.0 FCE, similar to minors from the Faculty of Arts & Science.

The requirements for a Minor in Global Engineering in the Faculty of Applied Science and Engineering are the successful completion of 4.0 credits from the following courses:

Required:

- 1) GLB201H5 Global Leadership: Past, Present, Futures (0.5 FCE)
- 2) GLBC01H3 Global Leadership: Theory, Research and Practice (0.5 FCE)
- 3) GLB401Y1 Global Leadership: Capstone Project (1.0 FCE)
- 4) Choose 2.0 FCE from the following elective courses, at least 1.0 FCE must come from List A:

List A

- APS299Y0 Y - Summer Research Abroad (1.0 FCE)
- APS510H1 F - Technologies and Organizations in Global Energy Systems (0.5 FCE, CS)
- APS420H1 S - Technology, Engineering and Global Development (0.5 FCE, HSS)
- APS530H1 S - Appropriate Technology & Design for Global Development (0.5 FCE)
- Global Engineering themed capstone (APS490Y, ECE496Y, MIE490Y, MIE491Y, CIV498H) as approved by the Director of the Centre for Global Engineering (1.0 FCE)

List B (all 0.5 FCE, HSS)

- ANT204H1 - Social Cultural Anthropology and Global Issues
- ENV333H1 - Ecological Worldviews
- GGR112H1 - Geographies of Globalization, Development and Inequality
- JGU216H1 - Urbanization & Global Change
- POL201H1 - Politics of Development: Issues and Controversies
- POL208H1 - Introduction to International Relations
- CDN268H1 - Canada and Globalization

Limited Enrolment — Enrolment in this program is limited. Students must follow the appropriate application procedures in the year preceding enrolment.

Appendix B: Detailed List of New Courses and Course Descriptions

Core Courses:

Code	Title	Prerequisite	New/Existing
GLB201H5	Global Leadership: Past, Present, Futures	You must have followed the appropriate application procedures in the year preceding course enrolment, be entering 2 nd year or higher and have a minimum modified GPA of 2.7 (B-/70%) based on a student's top 3.0 FCE	New
GLBC01H3	Global Leadership: Theory, Research and Practice	GLB201H5	New
GLB401Y1	Global Leadership: Capstone Project	GLBC01H3	New

Core Course Descriptions:

GLB 201 (0.5 FCE) Global Leadership: Past, Present, Futures

In this course, we will examine the changing conceptions of "globalization" and "leadership". We will consider questions such as: Why did globalization become a dominant frame? How have narratives of globalization changed over time? What differences are there between late 20th century globalization and earlier processes of colonization? And what are expectations going forward? We will consider the assumed scale of the global and ways globalizations manifests differently in different sites, including students' reflections on the uneven experiences of globalization in their own lives, communities and worlds they observe and pass through. For leadership, we will similarly explore different approaches to this idea, across time (e.g., 1960s versus the present) and contexts (e.g., corporate operations versus community-level organizing). In this course students will be asked to challenge how good leadership is conceived, dynamics that are assumed (e.g., leaders and followers), and also who/what might be left out (e.g., gender, race, class), all towards developing the conceptual building blocks for assessing and asserting notions of leadership today and in the future. The interrogation of these terms in this course will serve as a starting place to work from in 3rd and 4th year courses. This course will be delivered primarily online through synchronous/asynchronous delivery with specific in-person activities scheduled throughout the course.

GLB C01 (0.5 FCE) Global Leadership: Theory, Research and Practice

Whether corporate, not for profit, or governmental, modern organizations require leaders who are willing to take on complex challenges and work with a global community. Thus, effective leaders must learn how to consider and recognize diverse motivations, behaviours, and perspectives across teams and networks. Building upon content learned in GLB201 and focusing on applications and real-life case studies, this course will provide students with knowledge and skills to become global leaders of the future. Upon completion of this course, students will be able to adopt culturally sensitive communication, motivation and negotiation techniques; preparing them to apply new principled, inclusive and appreciative approaches to the practice of global leadership. In preparation for GLB401, this course will include group-based activities in which students collaborate on current issues of global importance. An experiential learning component will help develop skills through interactions with guest lecturers and community partners. This course will be delivered primarily online through synchronous/asynchronous delivery with specific in-person activities scheduled throughout the course.

GLB 401Y1 (1.0 FCE) Global Leadership: Capstone Project

This culminating capstone course draws students together in a studio course to work on a group project with an external partner organization. Students will work in multidisciplinary teams, mentored by a faculty expert, to draw on content and experiences from their previous coursework and experience. The goal is for students to demonstrate leadership in addressing an issue that is active, real, and seen as having global reach, relevance, or implications. This course will challenge students to draw on their own learning to date, analogize to other fields where relevant, and to collaborate with peers to address complex questions. In addition to submitting a final capstone report, students will present their projects at an annual capstone event. This course will be delivered primarily online through synchronous/asynchronous delivery with specific in-person activities scheduled throughout the course.