Final Assessment Report

Geography and Environmental Management (BES, Minor), Geomatics (BES), Climate Change (MCC)

December 2024

Executive Summary

External reviewers found that the Geography and Environmental Management (BES, Minor), Geomatics (BES), Climate Change (MCC) programs delivered by the Department of Geography and Environmental Management were in good standing.

"We reviewed strong programs with outstanding, productive, and committed faculty, and excellent students. These programs combine the strengths of a traditional geography program with the support of Waterloo strengths, such as co-op and excellent technological and STEM attributes."

A total of nine recommendations were provided by the reviewers, regarding indigenization, branding, experiential education, cross-departmental collaboration, a Master's Research Paper (MRP) course for the graduate program, utilizing library resources, research opportunities, core and elective courses for the graduate program, and the use of a Generative AI policy. In response, the program created a plan outlining the specific actions proposed to address each recommendation as well as a timeline for implementation. The next cyclical review for this program is scheduled for 2028-2029.

Enrollment over the past three years

	GEM – 3YG (BES)	GEM – Honours (BES)	GEM – Honours Co-op (BES)	GEM (Minor)	Geomatics – Honours (BES)	Geomatics – Honours Co-op (BES)	MCC
2024-2025 (CURRENT YR)	43	70	159	60	28	231	25
2023-2024 (LAST YR)	42	76	156	66	28	215	51
2022-2023 (THREE YRS)	68	86	164	80	27	189	46

*Extracted from Quest on December 4, 2024.

Background

In accordance with the University of Waterloo's Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response of the Geography and Environmental Management (BES, Minor), Geomatics (BES), Climate Change (MCC) programs delivered by the Department of Geography and Environmental Management. A self-study (Volume I, II, III) was submitted to the Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs on Sep.13, 2023. The self-study (Volume I) presented the program descriptions and learning outcomes, an analytical assessment of the programs, including the data collected from a student survey, along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). The CVs for each faculty member with a key role in the delivery of the program(s) were included in Volume II of the self-study.

From Volume III, two arm's-length external reviewers were selected by the Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs: Professor Leslie King, School of Environment and Sustainability, Royal Roads University; and Associate Professor Scott Mitchell, Department of Geography and Environmental Studies, Carleton University.

Reviewers appraised the self-study documentation and conducted a site visit to the University on March 27-28, 2024. An internal reviewer from the University of Waterloo, Professor Kevin Hare, Department of Pure Mathematics, was selected to accompany the external reviewers. The visit included interviews with the Associate Vice-President, Faculty Planning and & Policy (in place of the Vice-President, Academic and Provost); Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs; Dean of the Faculty of Environment; Faculty Associate Deans of Undergraduate and Graduate Studies; Chair of the Department and Director of the graduate program, as well as faculty members, staff and current undergraduate and graduate students. The Review Team also had an opportunity to meet with representatives from the library, and Co-operative Education.

Following the site visit, the external reviewers submitted a report on their findings, with recommendations. Subsequently, the program responded to each recommendation and outlined a plan for implementation of the recommendations. Finally, the Dean responded to the external reviewers' recommendations, and endorsed the plans outlined by the program.

This final assessment report is based on information extracted, in many cases verbatim, from the self-study, the external reviewers' report, the program response and the Dean's response.

Program Characteristics

Undergraduate Programs

The Department offers the following undergraduate programs leading to a Bachelor of Environmental Studies:

- Geography and Environmental Management - Three-Year General
- Geography and Environmental Management - Four-Year Honours (Regular and Co-op)
- Honours Geomatics (Regular & Co-op)

The Three- Year General Degree in Geography and Environmental Management is not available as a first-year direct entry program for high school students. Students may only transfer to this program from another UW undergraduate program.

Students enrolled in other honours academic programs at UW may take a minor in Geography and Environmental Management by completing five units of geography courses (including up to two units of Environment Studies courses) and maintaining a minimum average of 65% in these courses. Students may also enroll in a joint honours program with either GEM or Geomatics. Students in joint plans fulfill all the requirements of their primary academic plan and complete a modified version of the second plan that is heavier and more prescriptive than a minor (9.0 units for the GEM joint plan, 8.5 units for the Geomatics joint plan). While a joint plan is theoretically available to students in many plans, since 2014, only 30 students have enrolled in joint plans, most commonly with GEM (joint plans with French; Knowledge Integration; Tourism and Parks Management; Earth Science; Environment, Resources and Sustainability; International Development; Political Science; Math).

Specializations

Students majoring in Honours Geography and Environmental Management or Geomatics may choose to graduate with one specialization. The available specializations are Aviation (launched 2020), Climate Change and Environment, Earth Systems Science, Geomatics, and Economy and Society. Geomatics students may not complete the Geomatics specialization.

Minors, Options, and Diplomas

The Department offers a minor in Geography and Environmental Management, and contributes core or elective courses to the following minors and diplomas offered by the Faculty of Environment:

- Minor in International Development
- Minor in Urban Studies
- Diploma of Excellence in Geographic Information Systems
- Diploma in Ecological Restoration and Rehabilitation
- Diploma in Environmental Assessment
- Diploma in Sustainability

Graduate programs

The Department offers the Master of Climate Change (MCC), a coursework-based degree that began with its first class in the fall term of 2013. All students begin the program by completing a common set of three foundational courses, which serve to situate all incoming students with knowledge of cutting edge in climate science (GEMCC601), human dimensions (GEMCC602) and mitigation (GEMCC603). Students then complete four climate change electives by the end of their second term, followed by an in-program internship or Major Research Paper (MRP) in their third and final academic term.

Summary of Strengths, Challenges and Weaknesses based on Self-Study

Strengths

- Undergraduate students strongly identify with their programs, expressing high levels of satisfaction with their undergraduate experience, and career outcomes.
- Launched in 2013 as the first Master's degree of climate change in Canada, the MCC has grown and is now a leader in its class.
- The Graduate Diploma in Climate Risk Management also has a growing reputation for online diploma delivery.
- Geomatics: exceptionally strong experiential education opportunities leading to robust co-op employment.
- Co-operative education remains a strong attractor for all undergraduate programs
- Multiple student surveys reveal high student satisfaction with their programs (GEM, Geomatics, MCC).

- The GEM programs have proven to be highly adaptable and resilient to change. A recent success is the specialization in Sustainable Aviation to capture Geography/Science and Aviation students who wish to transfer out of the aviation programs but who still need a degree with an Aviation component. This is a new initiative but has the potential to help with the retention of our students.
- With our strong links to industry, we have been successful in supporting our enterprises through non-government sources of funding in addition to tri-council and provincial funding.

Challenges

- There is a low awareness in the general population of what geography and geomatics are. This impacts recruitment of new students from high school. The environment field of academic programs is packed, and geography is now one of many variations in this field. In addition, within the Faculty of Environment, there are competitor units vying for the same students (Planning, SERS, and SEED). Notably, many faculty members in other non-geography units were trained as geographers adding complexity to this question. In the late 2000's the Department became Geography and Environmental Management to attempt to address this issue. Whilst it paid off at the time in increased applications, it is an ongoing challenge for the wider discipline: how to recruit strong students into a Geography degree program that is vastly different to the Ontario Grade 9 geography that all students take.
- Disciplinary identity of Geomatics is challenging within a non-engineering unit. Many of the Geomatics students in the past entered the program as deflections originally with a hope to transfer to computer science. In the past, the Computer Science minor managed to mitigate transfers out of the program, but the CS minor is no longer available and has been replaced by the Computing minor. Additionally, the identity of the "geomatics" label might need some refinement to better reflect the nature of the spatial science that is taught through the program.
- Gender balance remains a challenge in the Geomatics program, in particular. Technical or computing based programs tend to offer a less welcoming environment for female students (e.g., few female faculty teaching Geomatics courses, etc.). Another important factor outside of GEM's control is that Geomatics recruits deflections from CS, a discipline that remains majority male. It may be worth investigating and developing a plan for how to recruit more female students into Geomatics.

- Promotion of GEM's successes by the Faculty and strong web presence support from domain experts: News items and successes are promoted by GEM in an ad-hoc way. A more concerted effort is needed. Currently there is one specialist at the Faculty level who can lead this but they are required to support five unit's activities plus the Faculty level web pages.

Weaknesses

- Student recruitment from high schools remains a challenge.
- Physical experimental lab facilities (two Ecology Labs) need more support to explore more fully experiential learning opportunities.
- Staff advisor support for these programs is largely at its capacity limit. For the GEM and Geomatics plans (including the general degree plan) there is one advisor catering to close to 500 students across all years. With a new BSc in Climate and Environmental Change program launching in fall 2022, advising support will be stretched further as the program reaches its steady state intake level of 40 students a year.
- Promotion of the Department's scholarly and educational program successes by the University, Faculty and Department. There should be an opportunity to improve the Department's visibility and connectivity to the external community, including its alumni, with respect to its scholarly successes and new teaching and learning initiatives both across campus and in an outward-facing manner. Yet, the Department has been not as successful in developing this identity as perhaps it could.
- There continues to be a weakness in capacity to deliver human dimensions of climate change courses which is an important pillar of our Geography, and climate change degree programs at masters (MCC) and undergraduate (BSc). Key personnel in this field have reduced teaching capacity due to senior leadership positions and/or research-intensive positions. It is essential that this capacity be met through a planned new hire with a high teaching capacity profile.

Summary of Key Findings from the External Reviewers

"There are many strong and innovative features in the work at Waterloo GEM… Chief strengths are faculty, reputation, and breadth as well as depth of the curriculum."

Major challenges/weaknesses include lack of indigenization focus, shared recruitment challenges with Ontario Geography/Environment-based units, and adjusting experiential education to post-pandemic norms.

Program Response to External Reviewers' Recommendations

1. **Indigenization Strategy:** Develop an Indigenization strategy through consultation with faculty and Indigenous Nations. The self-study notes that the unit is in "early stages" of such efforts, including the hiring of an Indigenous instructor to help review curriculum. Specific strategies are necessarily suited to individual settings as developed through consultation with communities you develop relationships with, but based on calls to action and emerging best practices we recommend a strategy aiming for a combination of:
    - an Indigenous focus for GEM and the faculty as a whole including support systems, financial assistance, hiring Indigenous scholars to develop and teach Indigenous courses and Indigenous content in existing courses;
    - attracting Indigenous students; and
    - requiring Indigenous curriculum for all students and field opportunities in Indigenous nations and communities.

    Indigenous communities increasingly use GIS for land management and are initiating responses to climate change, land management and Indigenous grown Impact assessment processes. These are opportunities for Waterloo to train Indigenous students to provide leadership in their communities. Given the location of Waterloo in the territory of the Six Nations of the Grand River, there should be great opportunities to enter into partnerships with the Nation, to train their members and to provide coop placements within the Nations. To accomplish this, however, requires support systems for both Indigenous Faculty members, staff and students, not just token hirings.

    Program Response

    We thank the reviewers for their comments on Indigenization in the context of a Geography program. We agree with the need to advance Indigenization in higher education in general, and at the University of Waterloo in particular. Since the writing of the self-study an Indigenization strategy has been developed at the university level, and one is under development at the Faculty level, which the units (including GEM) plan to adopt and implement into their curricula and research activities.

    Regarding the proximity of the University of Waterloo campus to Six Nations of the Grand River, while we acknowledge that it does sit on ancestral lands promised to the Six Nations, the current Six Nations reserve is located 75 km away. This means that interactions between the campus community and Six Nations are seldom spontaneous and must be arranged intentionally. Many members of the campus community, including some from GEM, have existing partnerships and connections with members of the Six Nations community, and many other First Nations and Inuit communities across Canada. We appreciate the suggestion to explore further opportunities for training and partnerships, particularly through the co-op system. The program will explore options to connect more with Six Nations at the department

level, for example through high school outreach coordinated by the Committee on Undergraduate Recruitment (CUR), workshops and seminars. This may be facilitated with assistance from members of the campus Indigenous community.

A number of the other recommendations have either been fully, or partially, addressed:

- Since Fall 2023, the University of Waterloo has offered a full tuition waiver to students who are members of the Mississaugas of the Credit First Nation or Six Nations of the Grand River.
- In 2021, a new team was established within the University's Centre for Teaching Excellence dedicated to Indigenous Knowledges and Anti-Racist Pedagogies. This provides a resource to all instructors interested in Indigenization, and several instructors within the Faculty of Environment are already working with the team to integrate Indigenous ways of knowing into their courses. We have been advised that this is the appropriate way to approach Indigenization of our curriculum, as opposed to the process being led unilaterally by non-Indigenous members of the department.
- In January 2024, the Faculty of Environment hired a Manger of Indigenous Initiatives to support the implementation of an Indigenization strategy for the Faculty as a whole, which GEM is participating in actively. A major component of the strategy is an Environment Indigenous Initiatives Survey, launched in Oct 2024, which will gauge interest and awareness and engagement in Indigenization of teaching and research.
- The hiring search for an Indigenous faculty member in GEM failed due to a very limited pool of applicants who lacked a suitable record of scholarly research (note: this was a tenure-track position, not a lecturer position that was mentioned in the self-study). Due to a worsening financial situation, since Jan 2024 the University of Waterloo has been operating a restricted hiring program, which means that we are effectively unable to hire any new faculty members until further notice.

Dean's Response

As noted by the Department, Waterloo's active work toward reconciliation is coordinated within the Office of Indigenous Relations. The Faculty of Environment is pursuing the incorporation of indigenous content and perspectives throughout the curriculum and in co-curricular spaces through our Manager of Environment Indigenous Initiatives. In the curriculum space, we are embedding indigenous content where it naturally fits rather than building stand-alone required indigenous courses (though these exist, including the Minor in Indigenous Studies offered at United College). At this time, providing "field opportunities in Indigenous nations and communities" is not feasible or appropriate in the absence of meaningful relationships with these communities.

2. **Branding Strengths:** Build on your "branding" strengths – the unit's requests to us indicate you are certainly thinking along these lines, but the specifics need to come from internal

processes and local consultation to help make these decisions. GEM and MCC address the urgent and critical societal problems of today – climate change, biodiversity loss, health, reconciliation – these seem to be excellent themes that should be the focus of recruitment. To figure out how to communicate this to potential students, you (we) need to go into the high schools with language and tools tailored to their generation.

Program Response

We thank the reviewers for their recommendations on branding and recruitment. We agree that our academic programs and research directly address the causes, and potential solutions, to major global environmental problems, and that this should form the core of our brand and recruitment messages. It is clear that the program already addresses many of the recommendations from the reviewers. The program works closely with the Faculty of Environment team on undergraduate recruitment to ensure that our recruitment materials and messaging align with our current areas of focus. In 2015, GEM established the Committee on Undergraduate Recruitment (CUR) in response to declining applications and enrolment in our undergraduate programs. The mandate of CUR is to support the department in the development and delivery of outreach activities to Ontario High Schools, as well as to promote Physical Geography, Human Geography, Geomatics, and Aviation online and via social media. The Dean's office has funded two CUR co-op positions each year, and the co-op students have provided essential support in (a) developing a suite of materials showcasing the best of Geography at Waterloo, and (b) going into high schools to explain to students what Geography is and why our programs might be a good fit for them. Having the students deliver the message, rather than us academics, has been particularly successful because there is a smaller age difference and a much deeper cultural understanding and authenticity.

In 2023, CUR delivered its outreach roadshow to 75 classes at 25 high schools throughout southern Ontario, answering questions like What is Geography?, What is Geomatics?, and broader topics like how to apply to a university-level Geography program. Over 2,100 students have been engaged at these sessions via online platform Kahoot. Publicity and branding of our programs also occurs almost daily through our social media platforms, with 127,000+ views on Instagram in the period Fall 2023 to Spring 2024. Connections have been made between our departmental social media and similar accounts hosted by Geography departments at UBC, McGill and University of Alberta. Importantly, credible data show multiple students have applied to our programs after first engaging with our social media accounts. One important caveat is that the program is bound, to a large extent, to following the University's communications plan, which includes guidance that certain platforms favoured by young people (e.g., TikTok) should not be used due to cybersecurity concerns.

Despite these successes there is certainly more work for CUR to do, and maintaining a sustainable number of direct applicants into our Geography programs continues to be a struggle. A primary challenge is the lack of disciplinary identity for Geography in Ontario high

schools: it ceases to be a named subject after Grade 9. Increasing enrolment, therefore, relies first on effectively communicating all that Geography is and, most importantly for Waterloo students and their parents, what type of careers a Geography degree can lead to after graduation. Adapting the CUR materials to better deliver these messages is a central focus of their current work. A second potential challenge is in assuming that we understand students' primary motivations for pursuing a degree in Geography, and that our program serves their goals. We intend to explore extending CUR's mandate to include gathering that feedback directly from high school students and using the information to guide our curriculum development and delivery.

Dean's Response

As noted by the Department, GEM has been a leader in high school outreach. This has included building on existing strengths in climate change, applied physical geography, applied human geography and geomatics. The Faculty of Environment is currently pursuing a brand project under our strategic planning exercise, Environment 2035. As part of this, we are focusing on a "One Environment" approach which focuses on the collective strengths of the faculty rather than the distinctions of individual units.

3. **Experiential Education:** While we associate Waterloo as being a leader in this regard, current students were concerned that it was mostly achieved through the co-op program and very local (on campus) lab and field work. They are asking for more field opportunities as a regular feature – i.e. especially local field trips that are off campus but close enough to be affordable and fairly frequent / experienced across various courses.

Program Response

We agree with the reviewers and acknowledge that field opportunities have been limited coming out of the pandemic. A major challenge is the new budget environment where costs have increased dramatically and less money is available to support travel and expenses for field courses. In response, a Faculty-wide initiative has been established to make a series of field opportunities available to students every year (one local, one regional and one international, from a rotating list of destinations and faculty members). Three new field courses will be available to all GEM students starting Spring 2025 and we anticipate high demand.

Dean's Response

As noted by the program, the Faculty is pursuing field opportunities for all students at the faculty level (in addition to numerous field opportunities that already exists in multiple courses within the existing curriculum).

4. **Cross-Departmental Collaboration:** Look for opportunities and develop initiatives that provide more interaction across departments and programs. For example, we were told that there are existing programming links between GEM and SERS (and a cross-appointment) which provide great opportunities for students, but that there was room for growth. More broadly, it sounds like this is an opportune time to look for broader synergies across campus.

   Program Response
   We agree with this recommendation and are moving ahead with multiple initiatives for increasing collaboration and cooperation in teaching at undergraduate and graduate level. This process is mostly being coordinated at the Faculty level, with direct involvement from the Chair and Associate Chair Undergraduate in GEM. The first phase has seen the adoption across all units of a common core of three undergraduate courses to be taken by all majors in the Faculty of Environment starting Fall 2025. This means that students will develop a stronger connection and cohort with other students in the various undergraduate programs in the Faculty and will promote student mobility between programs. Similar efforts are being explored at graduate level, including in the MCC program, where there is scope for cross-listing courses between units to increase the diversity of student backgrounds in the course and to reduce duplication (e.g., a joint 'applied projects' course is in development between MCC and SEED professional programs, with Planning expressing interest to be part of it as well).

   Dean's Response
   I support the direction the program is taking on this front as part of the One Environment approach.

5. **Master's Research Paper (MRP) Course:** Consider a model that support MRPs through an MRP course– i.e. within a course, thereby giving course credit to the instructor, lessening the burden on faculty and the need for students to search for a supervisor. The proposal and report preparation processes could be supervised by the instructor but could still involve direction by faculty with suitable expertise.

   Program Response
   After an evaluation of the MRP stream within the MCC program, we have replaced the MRP option with a coursework only option starting in the Fall of 2025. This removes the burden of faculty support of MRPs and the burden of MCC students finding potential supervisors. Within the coursework program option, students will still undertake professional skills development and have the option for research engagement.

   Dean's Response

There are opportunities for multiple units to collaborate on MRP and applied projects courses to serve as the capstone in course-based master's programs, and, as outlined in the program's response to Recommendation 4, these are already being pursued.

6. **Utilizing Library Resources:** Involve librarians in communications courses. The librarians are very enthusiastic about helping with program delivery and have in particular highlighted the communications courses.

   Program Response
   The required undergraduate communications course in Environment is being revised as part of the adoption of the common core described in response to Recommendation 4. The course is being redeveloped by colleagues in another unit, but GEM will pass along this recommendation to that team for their consideration.

   Dean's Response
   GEM is adopting a faculty-level communications course as its Undergraduate Communications Requirement (UCR). This course is currently under redevelopment by a team which includes instructors from multiple units and our Manager of Environment Indigenous Initiatives. The team calls on expertise as needed to meet the learning outcomes.

7. **Research Opportunities:** More opportunities for student research may be valuable, both undergraduate and with MCC students. There is an imbalance between the MRP and Co-op, with most students electing to do Co-op. This is fine as it is a strength of the Waterloo brand, but research courses might better prepare students who are inclined to pursue post-graduate programs.

   Program Response
   We agree with this recommendation. At undergraduate level, a review of how many courses on research methods, and at what level they should be pitched, is underway. At the same time, attractors to and supports for the undergraduate honours thesis course are being increased; for example, the Chair has developed a course that provides training and mentorship for thesis students in research fundamentals like ideation, literature review, time management and academic writing. In addition, we are exploring front-loading the thesis course by having students develop their thesis proposal in the winter before they begin the actual thesis course. Our expectation is that this will increase interest in conducting a thesis, lead to thesis projects that are better conceived and developed, and mean students are less rushed when completing their thesis at the end of the second term.

   At graduate level, the MCC program currently has an internship stream that has transitioned to be administered by the university's Graduate Work-Integrated Learning team (Grad WIL);

MCC is not technically a co-op program. Most MCC students are motivated by the internship, rather than by research, making the MRP a default and often unpopular option for students who are unwilling/unable to secure an internship opportunity. We anticipate changes coming to the MRP stream as discussed in response to recommendation 5. There is also an applied MCC projects course where students can experience working in a team on a focused topic in a consulting type environment. This course has been very popular and provides students with the opportunity to engage in a research project in a manner that more directly mirrors the experience of working in industry.

Dean's Response
I support the program's approach to this recommendation.

8. **Core and Elective Courses - MCC:** Examine the relationship between core and elective courses for MCC. Students identified a disjunct between the core courses and the electives. This might be solved through more interaction among all the faculty teaching the core and elective courses, for example through instructional team meetings, to avoid duplication and ensure that the electives are at the right level for the MCC students.

Program Response
We thank the reviewers for this suggestion. A review of curriculum management and evolution in the MCC program is beginning and will intensify in Jan 2025. At that time, a new Program Director, Dr Wesley van Wychen, will take over for the MCC program, and the current Program Director, Dr Daniel Scott, will transition into a new role entitled Strategic Director for Climate Change Education in Environment. The expectation is that, working together with the MCC course instructors, Drs Scott and Van Wychen will coordinate curriculum updates and evolution to ensure that duplication is minimized and that elective courses are designed to scaffold onto the required core courses appropriately. Other curriculum changes are being evaluated as well, including a skills focused course in each of the core course thematic areas, a joint applied research projects course with other professional programs in the Faculty, and synergies with field courses where there are strong regional climate change dimensions.

Dean's Response
MCC core courses are only open to MCC students. MCC students have access to a large swath of electives, from multiple units and instructors. It is not feasible to build a large number of electives for MCC students alone, and which scaffold onto the core courses using a pre-requisite approach. The program already does an excellent job balancing specialized core course content with access to a large number of courses to suit students' particular needs and interests.

9. **Generative AI Policy:** Develop and circulate a Generative AI policy for the programs, possibly at the faculty level. This is perhaps not a widespread issue of concern, but it was raised and given the increasing incursion of AI into academia and the workplace, would be a good idea in any case.

Program Response

We agree that attention is needed on gen-Ai in academia. At Waterloo, this is being coordinated by central University-level committees for undergraduate and graduate studies. The department and its instructors will take direction from these committees and integrate their policies into our courses.

Dean's Response

At this time, Waterloo does not prescribe a particular approach to gen-Ai. The Faculty has adopted a number of templated statements (which were developed by a University-level committee) for instructors to use in their course outlines, with instructors choosing their approach based on course content, assessment methods, and learning outcomes. The Centre for Teaching Excellence continues to host teaching conversations and workshops on incorporating gen-Ai into teaching and assessment. It is neither feasible nor desirable to mandate a particular approach to gen-Ai at this time.

Recommendations Not Selected for Implementation

N/A

Implementation Plan

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	Indigenization Strategy	• GEM to explore options to connect more with Six Nations, for example through high school outreach coordinated by the Committee on Undergraduate Recruitment (CUR), workshops and seminars.	Chair	Winter 2026
2.	Branding Strengths	• Explore extending CUR's mandate to include gathering feedback from high school students on their motivations for studying Geography. • Use the information to guide curriculum development and delivery.	Chair, Associate Chair UG, CUR	Fall 2025
3.	Experiential Education	• Three new field courses already being implemented Faculty-wide.	Associate Dean UG	Spring 2025
4.	Cross-Departmental Collaboration	• A common core of three undergraduate courses to be taken by all majors in the Faculty of Environment has been approved. • Explore opportunities for collaborative teaching at graduate level; for example, in climate change education.	Associate Dean UG Chair, Associate Chair Grad	Fall 2025 Fall 2025

5.	Master's Research Paper (MRP) Course	• The MCC MRP option has now been replaced with an MCC coursework option beginning in September 2025.	Associate Chair Grad	Fall 2025
6.	Utilizing Library Resources	• The undergraduate communications course is being redeveloped by colleagues in another unit, but GEM will pass along this recommendation to that team for their consideration. • GEM was recently (Jan 2025) assigned a new library liaison (Sarah Brown), who was introduced at our department meeting on Feb 26, 2025. Sarah will meet with the GEM admin team in March 2025 to explore ways to renew and enhance the connection between the library and GEM programs and researchers.	Chair	Ongoing
7.	Research Opportunities	• Undergrad: a review of how many courses on research methods, and at what level they should be pitched, is underway. • Explore front-loading the thesis course by having students develop their thesis proposal in the winter before they begin the actual thesis course. • Grad: Changes coming to MRP as part of review in recommendation #5.	Associate Chair UG Chair, Associate Chair UG Associate Chair Grad	Spring 2025 Fall 2026 Fall 2025
8.	Core and Elective Courses - MCC	• Coordinate curriculum updates and evolution to ensure that duplication is minimized and that elective courses are	Associate Chair Grad	Fall 2026

		designed to scaffold onto the required core courses appropriately.		
9.	Generative AI Policy	• Integrate Gen-AI policies and directives from central University-level committees into departmental guidelines.	Associate Chair Grad, Associate Chair UG	Spring 2025

The Department Chair/Director, in consultation with the Dean of the Faculty shall be responsible for the Implementation Plan.

Date of next program review 2028-2029
Date

Signatures of Approval

Mar 6, 2025

Chair/Director — Date

AFIW Administrative Dean/Head (*For AFIW programs only*) — Date

Mar. 7, 2025

Faculty Dean — Date

Note: AFIW programs fall under the Faculty of ARTS; however, the Dean does not have fiscal control nor authority over staffing and administration of the program.

Feb.18, 2025

Associate Vice-President, Graduate Studies and Postdoctoral Affairs — Date
(For graduate and augmented programs)
On Behalf of the Associate Vice-President, Academic