

Two-Year Progress Report

Joint Graduate Program in Geography (MA, MES, MSc, PhD)

June 2019

Background

The review of the Waterloo-Laurier Graduate Program in Geography (W-LGPIG) between the University of Waterloo (UW) and Wilfrid Laurier University (WLU) assessed the Masters and Doctoral programs on March 19-20th, 2015. The two other course-based / major research paper programs, the Masters of Tourism and Masters of Climate Change, were reviewed under a separate review and do not fall under this report.

One site visit day was held at Waterloo, the other at Wilfrid Laurier University. The visit entailed interviews with various administrators of the Programs at both universities. In addition, several sessions were conducted with the faculty and students of the programs being reviewed along with visits of the main map library and the Geography and Environmental Management (GEM) facilities.

The resulting report from the examiners was completed on March 29th, 2015. A written response to the reviewers' recommendations was submitted to the University on June 4th, 2015, by the Chair, Professor Peter Deadman.

The following section provides updates on the recommendations made by the reviewers. Each recommendation is followed by the Department's initial response (June 4th, 2015) followed by an update on progress of implementation as of June 2018.

Responses to the Reviewers' Recommendations

Recommendation 1: The quality and positioning of this program relative to others in Canada and internationally is poorly advertised and marketed, and therefore it operates in relative obscurity. The websites of both Departments and the joint program would benefit from investments to get the story out. It is unlikely that the expertise or resources to achieve this can be found within the units. We suggest that responsibility for program marketing and promotion be assigned

elsewhere at UW and WLU, and that the unit then receive training in how to capitalize on social media and other methods to keep redesigned web-presences up-to-date and dynamic.

Response: We agree with this recommendation. The Program Committee for the W-LGPIG will undertake to develop a better marketing strategy for this program, with the goal of raising the program's overall profile in Canada. This graduate marketing strategy will be coordinated with current and future undergraduate marketing activities. In particular, we will endeavor to enhance our program website. We will be seeking assistance and resources from both UW and WLU to develop, implement, and maintain this enhanced marketing and promotion program.

Progress on Implementation: Marketing and recruitment at the graduate level continues to be a challenging topic when competition for Environment and Geography students is robust between units at UW and across Canadian university geography departments. A strategy for marketing across the two university Geography departments (UW and WLU) is also challenging given the different institutional pressures and policies at each. Nevertheless, GEM recruitment into our graduate programs continues well into the thematic research groups. Data on admission to the graduate programs, from 2014-15 to 2017-18 is presented below.

Graduate Recruitment

	MSc/MES	PhD
2014-2015	32	13
2015-2016	35	22
2016-2017	30	9
2017-2018	38	14

These recruitment totals reflect the strengths of our active research areas (geomatics, hydrology, climate change, human and economic geography and resource management) and the impact that our researchers have across their research networks. Our on-campus identity is also strengthened through our active involvement in the Collaborative Water Program. More formally, the Faculty of Environment has recently hired a graduate recruitment specialist as a new position and we expect that marketing and advertising the UW side of the program will benefit from this new position. This specialist has already assisted with an annual faculty-wide graduate recruitment event (e.g. Fall 2018) and is finalizing recruitment materials for all UW GEM programs including website optimization

for and the development of a mailing list of prospective students. Through a curriculum review that is seeking to improve clarity of taught programming, we also expect to be able to influence the marketing of the program strategy to benefit our recruitment needs.

Status: In Progress.

Recommendation 2: Both Departments are encouraged to develop ways to identify and stay engaged with their graduate student alumni to track their careers and successes. This information can then become part of a revised web presence.

Response: We agree with this recommendation. The Program Committee will work with the alumni affairs offices at both UW and WLU to review the current status of our alumni tracking and outreach activities. Information gained from these outreach activities will be used to both enhance our marketing efforts and to address issues in the delivery of the program.

Progress on Implementation: This effort is ongoing. The graduate administrators have been asked to track our alumni after they have completed their graduate degrees. This depends on faculty members keeping them informed, but we are attempting to add this to our tracking activities. One way of achieving this is to use LinkedIn (social media) as a way of encouraging our students to remain in touch and we have been experimenting with this at both the undergraduate and graduate levels and plan to develop a strategy for our graduate students. We have also decided to ask advisors to send an exit survey (see recommendation 3) to students who graduated from our programs within the last 5 years. Questions will be added to this survey asking about their careers and successes. Although not included in this report, the Master of Climate Change (MCC) program has been using LinkedIn to keep in touch with its expanding cohort of MCC alumni, and this is beginning to pay dividends in the form of new internship and employment opportunities for current MCC students. This is a model for the Departments are considering while developing a strategy to use LinkedIn to keep in contact with alumni.

Status: in progress/ongoing.

Recommendation 3: All graduating graduate students should receive an exit interview with a neutral party so that the program can receive ongoing feedback on the student's experience with the overall program, their supervisor, and supervisory committee.

Response: We agree with this recommendation. The Program Committee will develop a list of questions to guide these semi-structured exit interviews. Exit interviews will be administered by the graduate officers at UW and WLU, through a confidential process. Feedback from these exit interviews will be reviewed annually.

Progress on Implementation: After consideration, we have decided to implement a voluntary online exit survey for all graduating students. An invitation to complete this survey is included with the “next steps to graduation” communication following a successful defence. We decided against an in-person exit interview, mainly for logistical reasons, as we felt it would be challenging to schedule a mutually convenient time for a student who is graduating (and may be leaving Waterloo, etc.) and an independent/neutral person to conduct the interview. For these reasons, it was felt that an online exit survey would be likely to yield a higher response rate, and provide a less intimidating venue for students to provide their honest feedback. The exit online interview was started in Fall 2018.

Status: completed.

Recommendation 4: The numbers and specificity of graduate courses currently offered in the program's curriculum could be simplified and generalized to accommodate flexibility and realism. Courses that have not been offered for several years should be removed, particularly in instances where the faculty member who initiated the course has left the university. The program should explore more generalized "umbrella" course titles within cognate areas that can then be "customized" with sub titles to reflect any one specific offering. Courses offered in any one year should be advertised and, if at all possible, courses offered for the following year should also be agreed upon and advertised so that there is an honest contract between entering students and the program.

Response: We agree with this recommendation. The Program Committee will undertake a curriculum review with a view to streamlining graduate course offerings and eliminating older courses that can no longer be offered. This curriculum review will be undertaken in coordination with our responses to recommendations 5 and 6.

Progress on Implementation: The W-LGPIG Program Committee initiated a comprehensive curriculum review in the 2017-18 academic year. This is ongoing but a key all-hands meeting was convened on 12 June 2019. The strategy adopted is to use the program committee to

scope the broad nature of changes required and then to consult widely with the faculty membership of the Joint Program in both institutions. Reducing the number of courses, especially those electives that have not been offered for some years, is a priority. The Curriculum Review Committee is also examining the four research seminar courses: GEOG 600 (Seminar in Spatial Data Handling); GEOG 620 (Seminar in Human Geography); GEOG 640 (Seminar in Physical Geography); and GEOG 660 (Perspectives in Resource and Environmental Management). The Committee is recommending that these courses are re-scoped to become "key concepts" in contemporary Earth system science, human geography, geomatics and resource management. The Committee will also recommend that a set of eight or nine courses in research theory, methods and design be offered each year for each theme area (Earth System Science, Geomatics, Resource Management and Human Geography) . The current course GEOG 691, which is taken by all graduate students (PhD and Masters), will likely be redesigned to cover the professionalism in research at the Masters and PhD levels separately while still providing a forum for all students across both programs (UW and WLU) to socialize and build a strong student body.

It is anticipated that these changes will be implemented for the Fall 2020 intake.

Status: in progress

Recommendation 5: The number of required courses (five) is high for typical equivalent Masters programs of this type across Canada and we suggest that the possibility of reducing this by one course be considered. Courses that are cross-listed and/or offered by academic units other than the two Departments participating in the joint program should be clearly identified as such, with an explicit pointer that students must check the availability of these courses during their degree.

Response: We are taking this recommendation under advisement. We are currently (at WLU) undertaking a detailed review of the course requirements for research masters programs across Canada. This information will inform a broader discussion regarding the appropriateness of the current course requirements and the possible revision of these requirements.

Progress on Implementation: A recent scan of geography programs in the U15 group of Universities in Canada, for which geography is offered as a Masters degree, indicates an average of 4.2 courses. Five programs require 5 courses, four programs require 4 courses, one program requires 2 courses and the remainder require 3 courses. The W-LGPIG

requires five courses which is at the upper end, but is not unusual. Despite these numbers, the Curriculum Review Committee is concerned primarily with the training of graduate research students and is approaching the question of the number of required courses and course content from the point of view of what are the key research skills that a geography graduate research student should master in their field by the time they complete their research thesis. Nevertheless, at the recent all-hands curriculum review meeting (June 2019) there was strong and vocal support for reducing the required number of courses, and the curriculum review committee has listened to this feedback, and has started the process of implementing a reduction to 4 required courses, plus a mandatory thesis proposal milestone.

Status: In progress

Recommendation 6: The learning outcomes, design and delivery of GEOG 691 should be revisited. We encourage that this process be externally facilitated through one of the two universities “Learning and Teaching Centres”, and that the process include input from past students who have taken this course. Given relatively high enrolment numbers for this type of course (often over 50), the option to divide the course into two - one specific to Masters students, the other specific to doctoral students - should be considered. Separation of the two groups would also serve to establish a sense of community amongst the PhD student cohort across the program that appears to be missing at present. As starting discussion points for redesign of GEOG 691 we offer exploration of what may be simply "busy work assignments" vs. assignments that will help the students "advance in their program of study", what aspects of professional development the course may wish to cover (e.g. writing proposals and grants, strategies for publishing, producing conference posters and presentations, preparation of teaching dossiers, project management, ethics, ...), what the most effective ways are to teach these professional development skills, and how the course may facilitate community building across the graduate body, and between graduate students and faculty. The question of whether the course should remain Pass/Fail or be graded could also be revisited. Finally, thought could be given to how the course could be adjusted on an annual basis to reflect the research interests of that year's cohort.

Response: We agree with this recommendation. As part of the broader curriculum review undertaken in response to recommendation 4, we will undertake a review of the delivery of GEOG 691.

Progress on Implementation: The W-LGPIG Program Committee initiated a comprehensive curriculum review in the 2017-18 academic year, which is ongoing. One of the tasks is to re-assess GEOG691 and in the light of the response to Recommendation 4, the Committee is exploring the development of GEOG691 into a professional skills development course and potentially a seminar series that draws in expert researchers at other institutions to provide insight into leading edge themes in geography from across the broader discipline. At and following the recent June 2019 retreat, it has been decided to split 691 into 700 (Masters) and 800 (PhD), with a focus on professional skills development and training (proposal-writing, presenting contemporary discipline-specific thinking and ideas) that are most appropriate for Master's and PhD students. The research seminar series will also be developed as part of this effort. This action is in development and is planned for implementation in Fall 2020. This effort will also address Recommendation # 7.

Status: In Progress.

Recommendation 7: We would like to encourage the establishment of a weekly or bi-weekly seminar series across the entire program. We understand that such series exist within individual fields within the program but feel that a pan-program series would assist in promoting a greater sense of community amongst students in the program as well as raising awareness of the diversity, breadth and excitement of the discipline.

Response: We agree with this recommendation. The department chairs at WLU and UW will coordinate to organize a pilot seminar series for the 2015-16 academic year. The initial response to this series will inform the continued development of a regular seminar series. Responsibility: Department Chairs and staff from both WLU and UW.

Progress on Implementation: See response to Recommendation 6 above.

Status: In progress.

Recommendation 8: The stated timeline and deadline for the comprehensive examination should be aligned with the current reality (completion within the second year and by the end of the sixth term in the program). The evaluative pieces of the comprehensive examination should match clearly stated purposes and learning objectives and as much as possible facilitate delivering components of the doctoral theses (i.e. literature review, theoretical context, relevance to the discipline, statement of research problem to be advanced).

Response: We do not agree that adjustments should be made to the comprehensive exam schedule. Currently, our UW GEM doctoral program guidelines state that comprehensives "will normally be completed by the end of the fourth term of registration in the doctoral program"(usually during the fall term of the second year in the program).

Most students successfully complete the comprehensive exam in the 4th term, or early in the 5th term (if there are scheduling issues). We believe this timing should be maintained to ensure that students move on to their thesis research in a timely manner. Delaying the timing of the comprehensive exam would unnecessarily slow students' progress through the PhD program, and may lead to increased numbers of students who are beyond the fourth year of their guaranteed minimum funding. We will review the current structure of the evaluative pieces of the comprehensive exam with respect to stated desired learning outcomes.

Progress on Implementation: No further action is deemed necessary at this time. However, the University has embarked on developing and implementing a University-wide policy on comprehensive examination procedures, including timelines. This has been ratified and is now adopted for the Joint Program for students enrolled after May 2019. Our WLU Partners have also adopted the UW guidelines, for consistency.

Status: Completed

Recommendation 9: The opportunities to prepare for a career that includes teaching, including advancing an understanding of delivery of pedagogy and developing teaching skills, should be made more explicit for PhD students. The possibility of incorporated this as requirements for completion of the doctoral degree should be considered.

Response: PhD students are currently made aware of resources on the two campuses to assist them in the development of their teaching skills. We can examine efforts to reinforce the availability and awareness of these resources (e.g., via GEOG 691). We will explore the possibility of incorporating teaching skills into the requirements for the degree. However, adding the requirement that a PhD student teach a class will not be possible or advisable, for a variety of reasons.

Progress on Implementation: This issue is addressed in the newly identified GEOG 800 course which will focus on professional skills development for PhD students. As part of the research culture at UW, sessional opportunities are increasingly available to our PhD

students (post comprehensive examination) and those who are considering careers as teachers are encouraged to explore sessional opportunities as they arise. We also know anecdotally that some of our doctoral students secure teaching opportunities on other campuses in Southern Ontario. For students interested in developing their teaching skills, access to resources at the [Centre for Teaching Excellence](#) is available for both in-classroom teaching and online teaching. It is also recognized that not all PhD students seek a career that involves teaching. Given that many seek professional research careers rather than a traditional track into the professoriate, we do not mandate the training of teaching skills for these researchers.

Status: Ongoing.

Recommendation 10: The potential for developing a course-based Masters degree in Geomatics should be explored. There looks to be support for this amongst the Geomatics faculty and it would be consistent with the desire on the part of UW to increase the number of professional Masters programs.

Response: UW has discussed the possibility of creating a course-based masters in Geomatics before. This will be discussed again.

Progress on Implementation: We agree that this could be an excellent possibility to explore and continue to monitor this potential opportunity. However, the Department is not yet in a position to deliver such a program at the graduate level without substantial resourcing of new hires. Currently, there is a mismatch between our undergraduate majors who enter into our existing programs and our teaching complement in the geomatics sub-discipline. Approximately one half to two thirds of our undergraduate majors enroll in the Geomatics plan while only about one quarter of our faculty teaching complement is in the field of pure geomatics. The capacity to offer a Masters in Geomatics at this stage, therefore, is not evident unless the Department's human resources are dramatically reconfigured.

Status: Ongoing monitoring.

Recommendation 11: That the impact not replacing vacated faculty positions on each of: 1} the joint graduate degree under review, 2} each Department's undergraduate programs, and 3} other graduate program initiatives the two Departments are involved in, be given very careful consideration when it comes to reallocating or investing new resources in the Faculty. More

specifically, we recommend that close consideration be given to a replacement tenure-track position at WLU in the Environment and Resources Management field not only to ensure coverage of critical needs in the undergraduate curriculum, but also to regain capacity to offer graduate courses and to supervise students in this field in the program. We understand that the strategic need for this position is recognized by the Administration at the highest level.

Response: We agree with this recommendation.

Progress on Implementation: The specific recommendation to our sister department at WLU is noted. More generally, at UW, recent hires have been made in Geography and Aviation (one at Associate Professor), glaciology (one at Assistant Professor and successful CRC-II), and economic geography (two at Assistant Professor).

Status: Completed

Recommendation 12: It was brought to our attention by the students that there may not exist equal ease of access to facilities at the “other” university. The problem may arise in part from lack of awareness by all students of how access may be secured, in part from lack of awareness on behalf of the UW and WLU administrative structures as to why equal access is important given the nature of this joint-program. We recommend that W-LGPIG investigate and negotiate the resolution to issues of unequal access.

Response: We are aware of historic complaints regarding access to resources. It should be pointed out that access to academic resources is equal for students from both campuses. Students from WLU and UW have the same access to wireless internet, the library, lab, online learning resources, and iThenticate (through UW). The only difference, when it comes to access, is in the “social” resources (e.g. athletics, bus pass etc). These services are part of student fees and specific to each campus. We understand that WLU provides more access in this area. For example, UW students may use the WLU athletic facilities, but WLU students may not use those at UW. However, this is not a W-LGPIG issue and beyond the control of our academic units.

Progress on Implementation: As per our initial response, we recognize this issue and that it is a function of the different administration of the two institutions. We have been able to improve the timely access of WLU students to UW academic resources which has been an ongoing issue but this has been resolved.

Status: Completed.

Updated Implementation Plan

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	The quality and positioning of this program relative to others in Canada and internationally is poorly advertised and marketed. We suggest that responsibility for program marketing and promotion be assigned elsewhere at UW and WLU, and that the unit then receive training in how to capitalize on social media and other methods to keep redesigned web-presences up-to-date and dynamic.	Continued formal recruitment through researchers' networks. Recruitment should be developed through UW Faculty of Environment recruitment (marketing and advertising) specialist. Coordinate materials from the joint W-LGPIG Committee to this person. Website maintenance will continue to be a priority and responsibility of Joint Program Director (WLU/UW) and administrative assistant.	Chair, Associate Chair, Graduate Studies W-LGPIG Committee.	Improvements are in progress and should be completed in 2020. The longer term recruitment strategy will take time to develop.
2.	Program needs to remain engaged with graduate student alumni to track their careers and successes (can be used for marketing etc).	Graduate Administrator asked to track alumni careers post completion. Development of a LinkedIn group for graduate alumni.	Chair, Associate Chair, Graduate Studies, Administrative support staff for graduate program.	Implementation in 2019-20 academic year. In progress.
3.	Graduating students should receive an exit interview from neutral party to provide ongoing feedback on student experience of overall program, supervisor and supervisory committee.	Implementation executed in 2018-19 academic year. Online exit interviews for newly completing students. Also, faculty advisers asked to contact recently completed students (<5years)	Program Director and / or Associate Chair (UW/WLU) depending on enrolment status (at WLU or UW) of the student.	Deployed and in use 2018-19.

4.	Streamlining of the number of course offerings and development of "umbrella" courses in specific thematic areas and in research design. Ensuring predictability of courses from one year to the next.	A full curriculum review was initiated in 2017-18 academic year to scope the curriculum structure and develop a more robust form with respect to core courses and electives. Following an all-hands meeting (June 2019), recommendations are being prepared for approval by relevant committees at UW and WLU. Each year, a predictable set of key concepts, methods and professional skills training courses will be provided. Planned implementation Fall 2020.	Initially in development with the Committee of the Waterloo-Laurier Graduate Program in Geography. Responsibility for implementation: Chairs (UW/WLU)	In Progress
5.	The number of required courses (five) is high for typical equivalent Masters programs of this type across Canada. It is suggested that the course number be reduced by one. Courses that are cross listed and/or offered by academic units other than the two Departments participating in the joint program should be clearly identified as such, with an explicit pointer that students must check the availability of these courses during their degree.	The range of the required number of courses for Masters students across U15 Geography programs is between two and five. W-LGPIG is not unusual in its requirement of five. However, structural content changes may result in students taking a minimum of 4 graded courses plus. At the June 2019 meeting, there was agreement that 4 required courses, plus a mandatory thesis proposal milestone is a desirable load for our students.	Committee of the W-LGPIG tasked with curriculum review. Responsibility for implementation: Chairs (UW/WLU) and Associate Chairs (UW/WLU).	In progress

6.	Redevelopment of GEOG 691 to be more specific in its aims and objectives.	This course will be revised as a part of the wider curriculum review and in reference to Recommendation 4. Also, this revision is in reference to Recommendation 7. Specific changes: split into GEOG700 (Masters and GEOG800 (PhD) as professional skills training courses.	Committee of the W-LGPIG tasked with curriculum review. Recommendations being prepared for approval by the program committee and UW and WLU Geography Departments. Responsibility for implementation: Chairs (UW/WLU)	In progress
7.	Develop and establish a weekly or bi-weekly seminar series across the entire program.	This is being explored within the context of the re-developed GEOG 691 as GEOG700 and GEOG800.	Committee of the W-LGPIG tasked with curriculum review. Responsibility for implementation: Chairs (UW/WLU)	In progress
8.	Realignment of the timeline and deadline for the comprehensive examination (completion within the second year and by the end of the sixth term in the program).	The current timelines and deadlines are designed to encourage student passage through the graduate programs in a timely manner. Delaying the timing of the comprehensive exam would unnecessarily slow students' progress through the PhD program. New UW directives have superseded any program-level requirements	Responsibility for implementation: UW GPSA	Completed
9.	The opportunities to prepare for a career that includes teaching, including advancing an understanding of delivery of pedagogy and	PhD students present in courses and at research conferences. Many PhD students do not seek formal	Chair, Associate Chair, Graduate Studies, Graduate Advisor	\

	developing teaching skills, should be made more explicit for PhD students.	teaching positions but research lab positions so this is not needed. For those who seek teaching positions, sessional opportunities are increasingly available and access to CTE resources is encouraged. Two new courses in professional skills development for Masters (GEOG700) and PhD (GEOG800) will satisfy this recommendation.		
10.	The potential for developing a course-based Masters degree in Geomatics should be explored.	The Department agrees with this recommendation but recognizes that with current resourcing it will be difficult to deliver without human resource addition and/or reconfiguration. Given the bench-strength in this area, ongoing monitoring of real opportunities will continue.	Chair, Associate Chair, Graduate Studies	Ongoing monitoring
11.	Replacement of vacated faculty positions is essential. Recommend that chose consideration be given to a replacement tenure-track position at WLU in the Environment and Resources Management.	At UW, recent new complement hires have been made in glaciology (1), geography and aviation (1) and economic geography (2). We recognize the necessity to replace hires in cognate fields and to grow incrementally whenever possible.	Chair	N/A
12.	Perhaps students may not experience equal ease of access to facilities at the “other” university	Historically, issues have arisen. Academic issues have been dealt with - we have a streamlined	Chair of the W-LGPIG, Chairs and Associate Chairs, Graduate Studies.	Completed

		<p>process now to give WLU students access to appropriate UW academic resources.</p> <p>Social resource access is largely a function of the differences between the two institutions.</p>		
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The Department Chair/Director, in consultation with the Dean of the Faculty shall be responsible for monitoring the Implementation Plan.



Date of next program review _____ 2021-2022 _____
Date

Signatures of Approval:

Chair/Director _____ Date 13 July, 2018

Richard Paddock Kelly

AFIW Administrative Dean/Head (For AFIW programs only) _____ Date

Jan Aubrey

Sep 26 / 18

Faculty Dean _____ Date

Associate Vice-President, Academic _____ Date
(For undergraduate and augmented programs)

Jeffrey M. Caelli

May 21, 2019

Associate Vice-President, Graduate Studies and Postdoctoral Affairs _____ Date
(For graduate and augmented programs)