Ongoing Improvement Progress Report

Instructions and Report Template

As part of the protocols outlined in Western's Institutional Quality Assurance Process (IQAP), to facilitate the continuous improvement of academic programs between review cycles, in connection with the Final Assessment Report (FAR) and Implementation Plan, a monitoring process will include an Ongoing Improvement Progress Report. The outcomes of this report will be considered as part of the program's next cyclical review.

The purpose of this report is to provide an update on the operationalization of the implementation plan following a Cyclical Program Review (or the review of a New Program). This should include a brief summary of actions taken by the Program and the Dean's Office since the completion of the review (usually about three years), as well as an update on the stage of implementation for all applicable items. These include:

- whether the action item(s) are in progress, complete or no longer applicable (with a brief explanation);
- the timelines of each item and how they are progressing or expected to progress, particularly if they are diverting from original timelines in the FAR and Implementation Plan, and;
- a short description of any other program developments and improvements that have taken place following the review.
- For new programs only, an evaluation of the initial administration and resourcing of the program.

The following report template has been created for the program to report on progress made regarding recommendations presented in the Implementation Plan, and any other relevant program developments and enhancements.

- The program will complete the template and submit it to the faculty Dean's Office for sign-off.
- The program will then submit the completed Ongoing Improvement and Progress Report to the Office of Academic Quality and Enhancement (OAQE). Reports are due by June 30.
    - The OAQE will present all Ongoing Improvement and Progress Reports to SUPR-U/G. Any follow-up questions/concerns, will be communicated to the program and Dean's Office by the OAQE.

Ongoing Improvement Progress Report

Program / Faculty Information

Program	Computer Science, MSc, PhD	**Faculty / Affiliated University College**	Faculty of Science
Approval Dates of the Review	SUPR-G: October 17, 2022 ACA: October 26, 2022 Senate: November 11, 2022	**Year of the Next Review**	2029-2030
Link to the Programs Final Assessment Report (FAR)	*https://www.uwo.ca/pvp/vpacademic/iqap/academic_programs/iqap_reports/sciencegrad/Grad%20Computer%20Science%20FAR.pdf*		
If applicable, submission of follow-up report(s)	Report Due September 2023		

	Name	**Signature**	**Date**
Program Chair/Director	Dr. Zubair Fadlullah		08.07.2025
Dean (or delegate)	Dr. Elizabeth Webb		July 10, 2025

Progress Update on the Implementation Plan

Recommendation #1	Proposed Action and Follow-up	Responsibility	Timeline
Increase/improve physical working environment.	• Examine how departmental space is currently used and identify specific needs. • As needed, draft a plan for the creation/transformation of space. • Discuss with Faculty leadership.	Department Chair Graduate Chair Office of the Dean, Faculty of Science	By Sept. 2023

Recommendation Implemented

☑ Yes ☐ No ☐ Partially

If no, or partially, is implementation on schedule with the timeline? ☐ Yes ☐ No

Progress

What specific actions have been taken

With the support of Faculty leadership, the Computer Science Department undertook an extensive space renovation initiative (432 m^2) on the third floor of Middlesex College in February 2025. The primary area renovated was a decommissioned server room that had been unused. These renovations created new undergraduate and graduate space. As a result, the graduate space now includes 16 new workspaces for graduate students, substantially improving the physical working environment. The renovation project focused on optimizing underused areas, improving ventilation and lighting, and creating a flexible environment to support academic and research activities.

Next Steps (if applicable)

What actions remain? Is there further follow-up? A usage review of the renovated space, particularly the graduate space, will be conducted to assess occupancy patterns and identify any additional needs. The undergraduate area will also include a help centre that will improve graduate TA work by centralizing consulting times in the new space.

Additional Comments

If applicable

Recommendations #2 and #8a	Proposed Action and Follow-up	Responsibility	Timeline
Develop an actionable and comprehensive approach to enhancing gender equity and EDIAD within the Computer Science Program, in alignment with Western's commitment to EDIAD.	Develop a strategic plan aimed at enhancing EDIAD and gender equity within computer science, including faculty members and graduate students in this initiative.	Department Chair Graduate Chair Office of the Dean, Faculty of Science	By Sept. 2023

Recommendation Implemented

☑ Yes ☐ No ☐ Partially

If no, or partially, is implementation on schedule with the timeline? ☐ Yes ☐ No

Progress

What specific actions have been taken?

The department took multiple concrete actions to advance equity, diversity, inclusion, accessibility, and decolonization (EDIAD). These actions span four key areas: (1) financial accessibility, (2) gender diversity, (3) ethno-racial diversity, and (4) creating a more supportive environment for women in computing.

(1) Reducing Barriers due to Lack of Funding – In June 2023, the department reviewed graduate student funding levels and provided benchmarks for living expenses in London. Supervisors were advised of their expected financial contributions, with a plan to increase required support over time. To extend funding windows and improve research outcomes, the department approved a major modification to extend MSc Thesis and Project streams from 4 to 5 terms starting with the Fall 2024 intake - a change with direct implications for both student funding and post-graduation work permits.

(2) Increasing Gender Diversity in Recruitment – The department investigated several opportunities for advertising and sponsorship of external societies and conferences for women in computing with the goal of improving the gender diversity of our pool of women

and non-binary applicants. These include the **IEEE and ACM special interest groups**, **the Grace Hopper Celebration of Women in Computing**, and **the Canadian Celebration of Women in Computing**. Since Fall 2023, we decided to support students attending CANCWIC (https://cscan-infocan.ca/celebration-of-women-in-computing/) as we work to increase our visibility to high-quality women and non-binary applicants. We also completed a targeted **tenure-track hire** to improve gender diversity among faculty, with the successful candidate beginning in January 2024.

(3) Increasing Ethno-racial Diversity in Admissions – For Thesis and Project-based admissions, students are admitted by supervisors on an individual basis. Coursework MSc students, however, are admitted as a cohort based on their applications. The previous process for admission of Coursework MSc was focussed heavily on grades. However, we found that even after translation to a 12 point scale, there appeared to be systematic differences in international applicant grades from different parts of the world. For the 2023 admissions cycle, a process was implemented to stratify admissions offers to identify strong students from a range of regions around the world. This has resulted in some of our first offers and students from the Sub Sahara in several years. We believe that creating a more diverse community in this way will create a positive feedback loop for more diverse recruiting in future, both in our Coursework and non-Coursework programs.

(4) Improve representation of women in Computer Science – Improving representation of women remains a priority for our department's EDIAD efforts addressing long-standing gender imbalances in computing disciplines. In 2022, we had a targeted hire for a woman to join us as a faculty member. Since 2022, we have been sponsoring students to attend **CanCWIC** – we have been trying to grow this year by year. In 2024, we sponsored ten students to attend the event. The women in computing is one of the department's target areas for fundraising for the next capital campaign. Next year, the department has planned to hold a **Living Learning Community (LLC)** in Clare Hall for undergraduate women in computing to build community around women in computing in the department. This would include graduate women in computing serving as mentors.

Next Steps (if applicable)

What actions remain? Is there further follow-up?

We acknowledge that EDIAD work is ongoing and requires sustained engagement. As part of our continued efforts, we plan to:

By October 2025: Work with the departmental representation on the faculty-level EDIAD committee to define local EDIAD priorities and develop implementation strategies tailored to the Computer Science context.

By Winter 2026: Organize an inaugural EDI-focused event or departmental consultation session to foster broader engagement and gather community input on future priorities.

Additional Comments

If applicable *Administrative and policy delays, such as those related to international student study permits, have affected the pace of some EDIAD efforts. Nonetheless, foundational alignment is in place, and future student- and faculty-driven initiatives are expected to grow out of this structure.*

Recommendation #5	Proposed Action and Follow-up	Responsibility	Timeline
Revise funding package for TAs and review resources to support their work.	• Review current graduate student funding packages, including the option of shifting funding from GTAs to research-based funding. • Survey graduate students to determine where shortfalls in grading resources are occurring and what needs exist. • Develop expectations for instructors in supervising TAs and circulate these to both instructors and students. • For large classes, consider assigning a lead-TA to help guide and support a team of TAs, and to help monitor their workload. • Work with the Centre for Teaching and Learning to identify resources to support TAs and Graduate students, more broadly.	Graduate Chair	Review of funding model – by September 2023. Survey of TAs by April 2023.

Recommendation Implemented

☑ Yes ☐ No ☐ Partially

If no, or partially, is implementation on schedule with the timeline? ☐ Yes ☐ No

Progress

- *What specific actions have been taken?*

(1) Major Modification to MSc Program Duration (16 to 20 Months) - In response to faculty and student concerns that the 4-term MSc Thesis and Project options were too compressed, we implemented a major curriculum change:

- Beginning with the **Fall 2024 intake**, the **MSc Thesis and Project streams shifted from 16 months (4 terms) to 20 months (5 terms)**.

This change provides students with additional time to complete their research, reducing stress and enhancing the quality of thesis and project outcomes. Importantly, this also impacts funding and TA planning.

- Students in the extended program will require **an additional term of funding**, which has implications for TA allocation and RA planning.

- The change supports **more equitable and sustainable student funding**, particularly for students who require more time for meaningful research engagement.

(2) Supervisors do have the opportunity to "buy out" TAs with their own research funds. We have made this clear to supervisors in the department.

(3) We conducted a TA Satisfaction Survey in February of 2023, which had approximately a 22% response rate. The first question was "Thinking back over all your experiences as a TA: How satisfied or dissatisfied are you with your ability to apply your skills in your TA work?" on a 5-point scale: Extremely dissatisfied, Somewhat Dissatisfied, Neither satisfied nor dissatisfied, Somewhat satisfied, Extremely satisfied. No respondents indicated they were dissatisfied, and 92% indicated they were "Somewhat satisfied", "Extremely satisfied." <5% were dissatisfied with the physical location of their TA work, and <5% were dissatisfied with the information and course-specific resources they were provided. No respondents indicated they were dissatisfied with their TA supervisor.

Respondents were also asked in open-ended questions about facilitators and barriers to carrying out their TA duties. The majority of facilitators reported were the TA supervisors, with "Outlook Groups/Teams" being identified in several responses as well. Barriers identified included not having access to assignments/exams early enough so that TAs can assist students in the classes. These findings were relayed to faculty to help them more effectively support their TAs.

Finally, respondents were asked about resources that would help them in their TA duties. They identified 1) a printer and 2) automation tools to support grading and OWL management.

(4) We set a plan to circulate expectations and resources developed by CTL at the beginning of each term:

For TAs: https://teaching.uwo.ca/teaching/teaching-assistants.html

For supervisors: https://teaching.uwo.ca/teaching/graduate-supervision.html

(5) A "lead-TA" structure was piloted in CS1026, one of our largest classes, in Fall 2023. Their duties specification were finalized (and updated in the subsequent terms). At the end of term, we aggregated feedback from faculty and TAs on this structure and whether they felt it was beneficial.

(6) We believe that the existing resources identified in **(4)** as well as events like **TA day** and **the Teaching Assistant Training Program (TATP)** meet the needs of our students; therefore, **we have changed our orientation materials to emphasize these resources for students**.

Next Steps (if applicable)

What actions remain? Is there further follow-up?

Expand the Lead TA model to other large-enrollment courses and continue to assess TA workload and satisfaction through periodic check-ins.

Additional Comments

These efforts were overseen by the Graduate Affair Coordinator (Ange Muir), who has played a key role in revising and stabilizing GTA support models within the department.

Recommendation #6	Proposed Action and Follow-up	Responsibility	Timeline
Teaching and Supervision: a. Ensure that there are supervisory committees for PhD students. b. Create a common general research methods course required for all MSc students, and require them for PhD students who have not taken a similar one before. c. Increase the number of graduate courses being offered. d. Consider offering courses more aligned with the current job market. e. Requirements for a project in a project-based MSc should be clarified in order to manage supervisions expectations.	a. Track committee members and annual interviews using the Pathfinder software provided by SGPS. b. Examine the potential for a common research methodology course for MSc students. c. and d. Review and strategize course offerings to meet the needs of the program, the interests of the students and the demands of the job market. - Work toward the development and administration of an institutional graduate course calendar. e. Determine mechanisms for balancing non-thesis student supervision between faculty members. - Consider setting up the MSc project as a 1.0 course with a coordinator/instructor responsible for communicating expectations to students, maintaining quality control and encouraging all faculty to propose project ideas.	Graduate Chair Graduate Committee	a. Immediate and Ongoing – the Department will increase prompt uptake of supervisory committees early in PhD programs by September 2023 b. Complete departmental review by September 2023. c. and d. Complete review and draft strategy by September 2023. e. Review and revise non-thesis component expectations – September 2023.
Recommendation Implemented ☑Yes ☐ No ☐ Partially If no, or partially, is implementation on schedule with the timeline? ☐ Yes ☐ No			

Progress

What specific actions have been taken?

a. We have notified supervisors of the need to formally record advisory committee membership and have specified that a "default" committee will be comprised of the Topics Survey and Proposal (TSP) committee members if no other committee is identified. We discussed the importance of using Pathfinder in department meetings and made it clear that annual reports and evaluations will be required, and that this is the norm across campus. Beginning Fall 2025, the Graduate Chair will review Pathfinder data at the end of each academic year to confirm that committees are in place and annual meetings are recorded. Reminders will be issued to supervisors whose students are not in compliance.

b. A new research methodology course has been launched by Dr. Hanan Lutfiyya in Winter of 2023, receiving strong interest and uptake from both MSc and PhD students.

c,d. With the recent hiring of new faculty, we have an increased and diversified set of courses that cover timely topics such as AI, data management, and cyber-physical systems. These courses are highly aligned with the current job market trends. We are happy to provide the necessary information to produce an institutional graduate course calendar.

e. We have discussed the issue of non-thesis component expectations and supervision in department meetings and in our executive committee. We have solicited faculty members for the best examples of deliverables for Projects and Directed Studies, and we will undertake an exercise as a department (asynchronously) to develop shared expectations for these deliverables.

Next Steps (if applicable)

What actions remain? Is there further follow-up?

a. Improve monitoring of TSP compliance to ensure timely committee formation.

c,d. Continue curriculum review to ensure alignment with industry needs.

e. Develop a 1.0-credit capstone project course with centralized coordination.

Additional Comments

If applicable

The infusion of new faculty has organically modernized the course catalog, supporting both academic and professional development.

Recommendations #8a & #8d:	Proposed Action and Follow-up	Responsibility	Timeline
Grad student life and support: a. Support the creation of a graduate student computing association – in particular a "women in computing society". d. Develop a succession plan for the grad secretary position.	Arrange student mentors from other departments who already organize similar groups for other programs. Support the communications of the departmental groups. d. With the onboarding of the new incumbent, formalize roles, responsibilities, and task lists. Consider how updates to the web site may help relieve some of the work.	Department Chair Graduate Chair Office of the Dean, Faculty of Science	a. By April 2023 d. By April 2023

Recommendation Implemented

☑Yes ☐ No ☐Partially

If no, or partially, is implementation on schedule with the timeline? ☐ Yes ☐ No

Progress

What specific actions have been taken?

a. The chair and the former graduate chair (Dan Lizotte) reached out to the SOGS representative (Anemily Vincens Machina) to discuss the potential for either creating such a society with/for graduate students, and/or connecting with the Western Women in Computer Science Club (WWCSC) founded by undergraduate student Grace Gong. WWCSC is a student and faculty committee that organizes events and initiatives to foster community, empowerment, and mentorship for young women pursuing computer science.

Initial attempts to launch a "Women in Computing" group were not successful due to low uptake. However, renewed outreach to student leaders is underway, and interest has been expressed to relaunch this initiative with departmental support and modest funding. Recently graduate students have been organizing themselves to increase social events with funding from SOGS.

Collaboration is ongoing with Math and other departments to host a social event (e.g., game night) at Middlesex College to foster community.

d. Succession planning for the graduate program administrator role is now complete, with task lists and roles formalized.

Over the past year, our Graduate Coordinator (Ange Muir) and former Graduate Chair (Dan Lizotte) worked together to formalize many of the implicit processes in the department. The process is ongoing. Our top priority has been better management of our TA resources. We now have implemented a survey system to provide a much better matching between TAs and courses that takes into account TA experience as well as TA and course instructor preferences. The second full implementation of this process has just occurred, and we have found that we have far fewer concerns raised about TA allocations that we ever have in the past. Our second priority has been to improve our communications with and for graduate students and faculty, in particular by improving and reconciling the contents of our website. Ange now has direct access to edit the website so we have been making progress on that front.

Next Steps (if applicable)

What actions remain? Is there further follow-up?

- Host the inaugural community event by Fall 2025 as a kickoff for the revitalized student group.
- Starting Fall 2025, start a Tuesday Tea with graduate students and faculty. Every Tuesday or every other Tuesday, there will be an hour in the morning to set aside for faculty and graduate students to come together and have an informal discussion in the lounge.

Additional Comments

If applicable

While progress has been slower than anticipated, there is renewed momentum, particularly driven by emerging student leadership. We are pleased to acknowledge the contributions of Kaitlyn Wade, who played a leading role in the 2025 UWORCS (Undergraduate and Graduate Research Conference in Computer Science). The department is also actively exploring additional initiatives to promote engagement, inclusion, and innovative student-led programming in the coming year.

Note: The total number of expandable text boxes will be dependent on the number of prioritized recommendations appearing in the program's most recent Final Assessment Report (FAR).

Continuous Program Enhancement

What additional initiatives or changes has the program been working on in relation to continuous program improvement?

- Several internal processes have been streamlined by the Graduate Affairs Coordinator, contributing to more effective TA management, student tracking, and committee coordination.
- The AI graduate course was significantly revamped, incorporating emerging trends in machine learning and real-world case studies.
- The department discussed more robust experiential learning opportunities, including internship options for MSc students.
- Improved internal communication, through departmental emails and updated graduate resources, has enhanced student engagement and fostered a stronger sense of openness.