

Final Assessment Report (FAR) and Implementation Plan

Periodic Program Review (PPR)

Graduate Program in Computer Science (MSc, PhD)

Last Updated: May 8, 2024

FINAL ASSESSMENT REPORT

In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the graduate program in **Computer Science (MSc, PhD)**. This report identifies the peer review identified strengths of the program, together with opportunities for program improvement and enhancement, and it sets out and prioritizes the recommendations that have been selected for implementation.

The report also includes an Implementation Plan that identifies who will be responsible for approving the recommendations set out in the final assessment report; who will be responsible for providing any resources entailed by those recommendations; any changes in organization, policy or governance that will be necessary to meet the recommendations and who will be responsible for acting on those recommendations; and timelines for acting on and monitoring the implementation of those recommendations.

EXECUTIVE SUMMARY

TMU's Graduate Programs in Computer Science offer two degrees: a Master of Science (M.Sc.) and a Doctor of Philosophy (Ph.D.). These programs are for graduate students seeking advanced education in Computer Science research and advanced concepts.

The Masters program took in its first students in 2007 with the Doctoral program beginning in 2011. The Program graduate students are supported by 27 faculty members, 5 adjunct faculty members and 24 associated members.¹ Three technical staff provide day to day support over that provided by the University.² In addition, 4 non-technical staff provide administrative support. There is one Graduate Program Director (GPD) responsible for academic matters in the graduate programs who is assisted by a Graduate Program Administrator (GPA) who handles all administrative matters.

The employment outlook for all graduates with a Computer Science degree of any kind is well above average. 65 percent of the fastest-growing and 62 percent of the highest-paying skills in the 5 fastest growing fields are computer science-related.

¹ A list of members of the TMU graduate school associated with the graduate programs in Computer Science is maintained at: <https://www.torontomu.ca/graduate/faculty-staff/>. Last accessed February 16, 2021.

² TMU provides computing and communication support through the "Computing and Communications Services (CCS) organization. Information about the wide list of services can be found at: <https://www.torontomu.ca/ccs/>. Last accessed February 16, 2021.

According to our alumni survey, 93.3% percent of all respondents indicated that they were employed or pursuing additional education. Of the respondents that indicated that they were employed, 99.6% of those indicating they were employed indicated that they were employed as computer scientists or in a closely related field.

A total of 31 students have successfully completed their PhD degrees and a total of 214 students have successfully completed their M.Sc. degree as of the date of this report.

Clearly our programs have been successful in preparing graduates for both continued graduate studies and for relevant careers and other employment opportunities in Computer Science. The programs, supported by the interests of an engaged faculty complement, has a heavy emphasis on applied research. This turns out to create graduates that are very much in demand.

Despite these strengths, the programs do face a number of challenges going forward. Student financial support has been an issue. Levels of stipend support for M.Sc. and Ph.D. students vary widely across the program. The inability to offer multi-year guaranteed funding packages is also a concern, particularly for Ph.D. students. A hidden problem also looms. Because of the demand by students for competent Computer Science Education, the Department of Computer Science has been asked to take on ever greater numbers of undergraduates with a competent growth in faculty members who want ever-more graduate students to participate in their research agendas. This situation is problematic because the number of domestic graduate students our programs can accept is limited to a fixed number as the total number of domestic graduate students within all graduate programs are controlled by targets set at the YSGPS level to ensure that the University does not surpass the number of funded graduate spots. As there are no new funded positions being allocated, in order for CS graduate programs to grow, they would require reallocation of existing domestic graduate spots from other graduate programs in the Faculty of Science or—even less likely—from other programs at the University as a whole . For the most part our graduate programs have had little trouble in achieving our domestic graduate intake targets. While improving the experience of the lucky few students who can participate in our programs is a laudable goal, it will not address this structural problem.

Graduate programs in Computer Science are well positioned for continued success in the coming years. The program has many talented faculty members and students with strong research productivity. Student satisfaction is generally high and employment prospects are excellent.³

³ Relevant data is presented throughout the Computer Science self-study report.

PERIODIC PROGRAM REVIEW AND PEER REVIEW TEAM

The graduate program in **Computer Science (MSc, PhD)**, FOS, submitted a Self-Study Report to the Yeates School of Graduate & Postdoctoral Studies that outlined program descriptions and learning outcomes, an analytical assessment of the program, program data including data from student surveys and the standard data packages. Course outlines and CVs for full-time faculty members were also appended.

Two external and one internal arm's-length reviewers were selected from a set of proposed candidates. The Peer Review Team (PRT) for the Periodic Program Review (PPR) of this graduate program consisted of Dr. Graeme Hirst, Department of Computer Science, University of Toronto; Dr Hosam El-Ocla, Department of Computer Science, Lakehead University; and Dr. Kimberly Bates, Ted Rogers School of Management, Toronto Metropolitan University.

The PRT site visit was conducted on-site on November 15, 2023. The visit included interviews with the University and Faculty Administration including the Provost and Vice-President Academic, Faculty Dean, Faculty Associate Dean, Vice-Provost and Dean Yeates School of Graduate & Postdoctoral Studies (YSGPS); Associate Dean Programs YSGPS, Graduate Program Director of the Graduate Program, Director Graduate Program Administration, and meetings with Faculty, a group of current students, administration, and support staff. The PRT report was communicated to the Associate Dean, YSGPS on March 17, 2024. The response to the report from the graduate program and Faculty Dean was communicated on April 1, 2024, and the final response was provided on April 9, 2024. The responses of the Program, Faculty Dean, and the YSGPS were revised after feedback received during the meeting of the Priorities and Planning Committee (PPC) on April 16, 2024. This response reflects those revisions.

PROGRAM STRENGTHS, WEAKNESSES, AND OPPORTUNITIES

The PRT cited some strengths of, and opportunities for, this graduate program including the program having some good faculty members and good basic facilities, citing that the framework of a good program is present and with adequate funding, it could become far stronger. For instance, The PRT noted the “enthusiasm of the faculty in delivering the curriculum and the dedication and competence of the support staff.” The PRT was also pleased with centres of research excellence in some labs that also serve as hubs for applied as well as fundamental research while at the same time creating suitable environments for the training of graduate students. The PRT noted evidence of student engagement and community building through the labs.

SUMMARY OF PRT RECOMMENDATIONS, GRADUATE PROGRAM AND YSGPS RESPONSES, AND IMPLEMENTATION PLAN

A report on the progress of these initiatives will be provided in the Follow-up Report which will be due in one year from the date of Senate approval.

PRT Recommendations	Computer Science Program Response	Dean of Faculty of Science Response	Proposed Program Action	Program Timeline and Responsibility/Lead	YSGPS Response
<p>Recommendation 1.</p> <p>The PRT recommends that the programs raise admissions standards, and take steps to improve the quality of the applicant pool so that this can be done without lowering the number of admissions.</p>	<p>The Program follows the practice of holistic admissions as a matter of equity restoration and access to opportunities. In fact, the Programs have been using such an approach for many years as the Programs finds that taking into account other aspects of an applicant's life creates a much better fit in our Programs. Respectfully, our admission processes find qualified candidates to participate in our programs. Our Program's graduation rates are similar to those of other graduate programs at the University. We do use CGPA as one of several criteria considered in the admissions process. Our intent is to educate students who select our Programs who would benefit from a solid graduate education in Computer Science.</p> <p>However we are not resting on our laurels and continue to work on improving the quality of our</p>	<p>The Faculty of Science agrees with the program, that current admission practices are matriculating good students.</p>	<p>Not applicable</p>	<p>Not applicable</p>	<p>The YSGPS commends the Program on its holistic approach to reviewing applications. This approach does not mean lowered admission standards and it should result in an improved quality of students being admitted.</p>

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	applicants and raising our standards.				
<p>Recommendation 2.</p> <p>The PRT recommends that the department be proactive in recruitment of high-quality domestic students.</p>	<p>The Department of Computer Science plays an important role in recruiting domestic students through funding poster and social media campaigns. These efforts are supplemented by The Faculty of Science who maintains a marketing and communications team. This approach has allowed our Programs to consistently meet or surpass admissions targets in most years.</p> <p>The Programs, however, agree that more resources should be made available for recruitment.</p>	<p>The Faculty of Science applauds the program's efforts to cost-effectively promote itself through posters and social media and will do what it can to further support and improve the visibility of the program through our Marketing and Communications team.</p>	<p>The Programs will explore and discuss additional strategies that can be used in order to recruit high-quality domestic applicants.</p>	<p>The Programs will initiate discussions with the Department and the Dean's Office this year (2024).</p>	<p>The YSGPS commends the Program in its current recruitment efforts and planned discussion with the Faculty of Science Dean's Office to explore additional strategies. YSGPS is happy to be involved in these discussions and provide support where it can.</p>
<p>Recommendation 3.</p> <p>The PRT recommends that the number of graduate courses offered each year be increased, possibly in part by more extensive cross-listing as well as by growth in faculty numbers.</p>	<p>The Programs agree with this recommendation to an extent. Indeed, the Programs provide a large number of cross-listed courses available to our students and will seek to continue this practice where possible and resources allow.</p>	<p>The Faculty of Science supports efforts to cross-list graduate courses between Computer Science and other programs within FOS and other faculties, wherever it makes sense to do so. It also encourages the Computer Science department to consider the potential for creation of new graduate courses and improving the breadth of course offerings</p>	<p>The Programs will discuss students' course needs, structuring, and strategies for planning course offerings as far in advance as logistically possible.</p>	<p>The Programs will initiate discussions with the Department this year (2024).</p>	<p>The YSGPS supports the efforts of the Program and the Faculty of Science to explore various means by which to increase the number of graduate courses offered each year and is available to consult on proposed major and minor curriculum modifications.</p>

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		<p>(see recommendation 4) through its allocated new faculty hires.</p> <p>The faculty will support the creation and offering of additional courses in cases for which it makes good economic sense to do so.</p>			
<p>Recommendation 4.</p> <p>The PRT recommends that the department diversify its course offerings, and that the need for much broader coverage of computer science should be an important consideration in future hiring.</p>	<p>The Programs agree that there are far too many artificial intelligence and machine learning courses. However, there is a very large demand for such courses from our (and several other) programs. The programs will seek to increase the number of non-AI related courses available including those that speak to the increasing challenges in social and ethical computation.</p> <p>Providing coverage for the growing subfields within Computer Science has been a challenge for the Programs given that until relatively recently no faculty hiring had been taking place. Over time sustained commitment to hiring faculty members with more diverse</p>	<p>The Computer Science department is allocated several new faculty hires in the coming years, and is encouraged to consider how this growth can broaden the coverage of Computer Science subfields in the graduate programs as part of its hiring strategy.</p>	<p>The Programs will explore how we might offer a wider range of courses. The Programs will discuss course options with students. The Programs will encourage faculty to create new courses. The Department will consider diverse expertise that may support relevant new courses when hiring.</p>	<p>The Programs will initiate discussions with the Department this year (2024) and encourage faculty members to create new courses as quickly as possible. As a comment, much of this planning will rely on an increase in program funding largely out of the control of both the Programs and the Department.</p>	<p>The YSGPS supports the efforts of the Program and the Faculty of Science to explore various means by which to offer new graduate courses and is available to consult on proposed major and minor curriculum modifications.</p>

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	interests and expertise will allow us to better address this recommendation in the future.				
<p>Recommendation 5.</p> <p>The PRT recommends that core courses be offered every year.</p>	<p>The PRT was provided with data from the time-period specified by YSGPS which would only include data from the 8-year period associated with the PPR. At that time there were fewer courses available. This has since been partially rectified and will continue to be a focus for the Programs as sustained commitment to hiring new faculty members continues.</p>	<p>With the suggested removal of CP9101 from the core curriculum of the Computer Science PhD program (recommendation 9, below) there will be no core subject courses in the program (aside from seminar, etc.). This recommendation seems to be more about introducing more subfield-related courses, which makes sense in the context of new faculty hires with expertise in those subfields.</p>	<p>The Programs will continue to hold discussions with and survey students, faculty, and graduate committees. Depending on the scope of approved recommendations, modifications will be implemented accordingly.</p>	<p>The Programs have begun to implement this recommendation and will continue discussions with the Department, faculty, and graduate students this year (2024). Depending on the scope of proposed modifications, revisions will be implemented according to relevant policies. Substantial modifications will be discussed with the Faculty of Science Dean's offices.</p>	<p>The YSGPS supports the Program's plan to update its curriculum as desired after consultation with key stakeholders and is available to provide advice regarding proposed major or minor modifications of this nature. YSGPS notes that the program was provided additional data by YSGPS on course loading and enrollments during 2018-2023, covering the period after the official review period (2010-2018). It is not clear why this data was not provided to the PRT as recommended by YSGPS.</p>
<p>Recommendation 6/7.</p> <p>The PRT recommends that breadth requirements be added to both the MSc and PhD programs in the not-too-distant</p>	<p>The Programs agree that breadth is important. The PhD program currently has a "breadth" requirement, but only recognized 2 sub-fields, and all courses are (sometimes arbitrarily) assigned to one of the two. Therefore, we are</p>	<p>As the Computer Science graduate programs are for the most part research-based, it makes sense for students to develop depth of knowledge in specialized areas related to their research, rather than</p>	<p>The Programs will initiate and hold discussions with and survey our students, faculty, and graduate committees.</p>	<p>The Programs will initiate discussions with the Department, faculty, and graduate students this year (2024). Depending on the</p>	<p>The YSGPS supports the Program's plan to update its curriculum after consultation with key stakeholders and is available to provide advice regarding proposed major or minor modifications of this nature. It also notes that our Graduate Degree Level Expectations as</p>

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<p>future as more courses start to be offered.</p> <p><i>(NB: this recommendation appears twice in the PRT report)</i></p>	<p>currently constrained by history in our ability to offer a sufficient variety of courses to support this recommendation. The Programs will continue to add graduate courses from different sub-fields of Computer Science as expertise is built up over time as hiring continues.</p>	<p>breadth of knowledge. As the faculty complement grows and expands into new areas, we expect that will afford the opportunity to deliver a wider breadth for students.</p>	<p>Depending on the scope of approved recommendations, modifications will be implemented accordingly.</p>	<p>scope of proposed modifications, revisions will be implemented according to relevant policies. Substantial modifications will be discussed with the Faculty of Science Dean's offices.</p>	<p>defined in Policy 110 require learning outcomes that cover both breadth and depth of knowledge.</p>
<p>Recommendation 8.</p> <p>The PRT recommends that cross-listing of graduate courses with fourth-year undergraduate courses be introduced wherever course material permits — which it should do in many cases.</p>	<p>As previously stated, this is already the practice within the Programs. Approximately $\frac{2}{3}$ of the grad courses offered in 2024/25 are cross-listed with undergraduate courses. However there will always be graduate courses offered at a level that would be too sophisticated to be so offered.</p>	<p>There are practical limitations to this approach, since it can create problems for graduate students who completed their BSc degrees at TMU and have already completed the cross listed courses. The extent to which this is already the practice in the program is likely at that practical limit.</p>	<p>No action required by the Programs.</p>	<p>No action required on the part of the Programs.</p>	<p>YSGPS agrees with the responses but notes that recommendation 3 above seems to be about cross listing between graduate programs while this recommendation is about cross listing with 4th year undergraduate courses. We also note that no more than one third of courses taken by a graduate student can be cross listed with an undergraduate program.</p>
<p>Recommendation 9.</p> <p>The PRT recommends that a more formal checkpoint system be implemented for the PhD program. Each student should have a continuing committee whose members the student can draw on for advice at any time, and each student should be required to meet with their</p>	<p>The Programs' current practice aligns with this recommendation. We have mandatory documented progress reviews for all graduate students which is already 3x more often than what is suggested by Senate policy.</p>	<p>The PRT likely got the wrong impression about this, as regular progress reports, and supervisory committee meetings are the current practice. Nevertheless, the FOS AD and GPDs will regularly discuss best practices to ensure that these</p>	<p>No action required by the Programs.</p>	<p>Ongoing discussion at regular FOS GPD meetings.</p>	<p>The YSGPS is available to consult on best practices and clarifying Senate policies related to student progress reports and supervisory committee meetings, as well as provide GPDs with additional information or clarification, in support of Faculty efforts.</p> <p>YSGPS notes that policy 170(b) is under revision where the role of the Plan of</p>

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committee at least once per year, if not for an exam or other formal event then at least for a progress report.	All students within the Doctoral program must have supervisory committees involved in the review of regular progress reports at least three time per year of enrolment.	checkpoints happen regularly and as scheduled.			Study, Progress Reviews, and Supervisory Committees in monitoring the progress of Doctoral students is further clarified.
<p>Recommendation 10.</p> <p>The PRT recommends that training for teaching assistants be improved, but CP9101 should be discontinued and removed from the PhD program requirements.</p>	<p>TA/GA positions at TMU are unionized. Training is available on a voluntary basis from the Faculty of Science and the Centre of Excellence in Teaching and Learning. Taking training is encouraged, however, training is not mandatory. The Programs will continue to encourage graduate students to learn pedagogy and apply it.</p> <p>CP9101 explicitly addresses the needs of teaching Computer Science to undergraduate students. The Programs agree that in its current form the course is not available often enough and to too few types of graduate students. It is the intent of the Programs to make this course available to all CS graduate students as an elective. Indeed it has been the goal of the Programs to make this course an elective for some time.</p>	<p>The Faculty of Science supports the change of CP9101 from the core curriculum for PhD, to elective available to all Computer Science graduate students. Moreover, starting in F2024, TAGA contracts will include a paid 2-hour workshop at the beginning of the semester to improve TAGA consistency and the quality of work for them, and the quality of support for undergraduates.</p>	<p>The Programs will continue to encourage the Department to continue to encourage the CS graduate students interested in TA/GA positions to seek training. The Programs will seek to make CP9101 an elective available to all CS graduate students.</p>	<p>The Programs will initiate action this year (2024) to undertake modifications of the programs, making CP9101 an elective for all CS graduate students.</p>	<p>The YSGPS supports the Program and Faculty responses to this recommendation and commends the proposed actions to enhance TAGA training opportunities.</p>

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<p>Recommendation 11.</p> <p>The PRT recommends that, in order to foster greater student engagement, the seminar series be broadened into a more-general graduate student event with food and social and/or other academic activities.</p>	<p>The Programs agree with this recommendation. The Programs will seek to open the seminar course to all graduate students and provide nutritional incentives to attend. We will continue to explore ways to attract more participation.</p>	<p>The Faculty of Science supports a revamp of the Computer Science seminar course. The FOS AD and GPDs will discuss each program’s current practices with respect to seminar courses, to help arrive at the best suggestions for Computer Science as well as other FOS graduate programs</p>	<p>The Programs will seek to modify the existing doctoral seminar course by renaming it to simply “Graduate Seminar” and making it a mandatory part of each thesis-based program.</p>	<p>The Programs will seek to implement this change in 2024 through the regular program modification processes.</p>	<p>The YSGPS supports the Program’s plan to update its curriculum and is available to provide advice regarding proposed major or minor modifications of this nature.</p>
<p>Recommendation 12.</p> <p>The PRT recommends that the graduate student stipend be very substantially increased — \$20,000 per year would not be unreasonable — and that the university grant a waiver of the international fee differential so that international students can be admitted to the program on the same financial terms as domestic students.</p>	<p>The Programs agree with this recommendation although this recommendation is largely out of the Programs’ control. The Programs encourage the University to make serious investments to support both domestic and international graduate students.</p>	<p>At the faculty level, we are developing plans to ensure that TAs and supervisor grant support funding are administered as fairly and consistently as possible. Even with these measures, we agree that current take-home remuneration for graduate students (especially after tuition) is not enough.</p>	<p>The Programs will continue to lobby and advocate for substantially improved funding for both students and program administration.</p>	<p>Ongoing. Timeline out of the Programs’ control.</p>	<p>YSGPS notes that “stipends” are typically paid from faculty member’s research grant, and as such, this is outside of its purview. However, it will continue to support efforts and initiatives to increase funding for graduate student awards and scholarships. It should be noted that such funding has increased over the past several years through the addition of funding for 4th year doctoral students, the introduction of TMGS scholarships, and the new international tuition revenue sharing model. YSGPS encourages the program and Faculty to look at the international revenue sharing model as a way towards tuition equalization for international graduate students.</p>
<p>Recommendation 13.</p>	<p>YSGPS maintains and list of</p>	<p>At the faculty level, we will explore ways to increase the</p>	<p>No action required.</p>	<p>Not applicable</p>	<p>The YSGPS supports the Program and Faculty responses to this</p>

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<p>The PRT recommends that the department graduate office maintain a list of scholarship opportunities for graduate students, publicizes the lists well, reminds students of application deadlines well in advance, and assists eligible students to make strong applications.</p>	<p>available funding opportunities of many kinds. The Programs regularly send out reminder emails to students that they should apply. Indeed, the success rates of graduate Computer Science students in winning funding is very good.</p>	<p>visibility of upcoming scholarship application deadlines, as well as continually improve our annual scholarship workshop.</p>			<p>recommendation to ensure that students maximize their opportunities to apply for and receive scholarships.</p>
<p>Recommendation 14.</p> <p>The PRT recommends re-evaluation of the allocation of space in the department, and, in particular, the creation of more office space and common space.</p>	<p>The Programs agree. Indeed, the department of Computer Science has opened up additional graduate student shared office space.</p>	<p>The Faculty of Science notes that while due to recently renovated space available in the Atrium on Bay, there is potential space for Computer Science which currently seems to be underutilized. The Faculty of Science continues to work with the University to develop more and better space for our operations. However, given the “pause” on the construction of a new FoS building, this type of solution will be temporary at best.</p>	<p>The Programs will continue to lobby and advocate for substantially increased space as it is required.</p>	<p>Not applicable</p>	<p>Such resource-related matters are outside the purview of the YSGPS, but it will continue to support efforts and initiatives that ensure appropriate infrastructure for graduate students.</p>
<p>Recommendation 15.</p>	<p>While the Programs wholeheartedly agree with this recommendation, the</p>	<p>This recommendation seems to be outside the scope of the</p>	<p>Not applicable</p>	<p>Not applicable</p>	<p>Such resource-related matters are outside the purview of the YSGPS.</p>

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<p>The PRT recommends that the department be granted funds to install proper cooling in the server room.</p>	<p>recommendation is beyond the scope of the Programs to implement.</p>	<p>periodic program review for the Computer Science graduate programs.</p>			
<p>Recommendation 16.</p> <p>The PRT recommends that the Graduate Program Director be given (at least) a two-course teaching reduction each year, and that support staff be augmented with (at least) another part-time position — possibly as one component of a full-time position with other duties.</p>	<p>The Programs agree with this recommendation. Indeed, all GPDs were once provided with 2 course releases.</p>	<p>The course release for GPDs is standard across the university, set by the VPFA, and outside the control of FOS. The administrative support for the graduate program (and the faculty and departments as a whole) was assessed by an outside consultant in later 2021 and found to be adequate at that time.</p>	<p>No action required on the part of the Program.</p>	<p>Ongoing</p>	<p>This particular recommendation is outside of the purview of the YSGPS as GPD release is negotiated with the Program’s home Faculty or School (with the exception of the interdisciplinary graduate programs that are housed in the YSGPS).</p>
<p>Recommendation 17.</p> <p>The PRT recommends that the graduate program be given a budget at the discretion of the Graduate Program Director of perhaps \$10,000/year for graduate student facilities, events and engagement, and travel.</p>	<p>The Programs agree with this recommendation which was the practice for years for all graduate programs in the Faculty of Science.</p>	<p>The graduate programs receive a budget from FOS in the amount of \$3000 per fundable graduate student (up to 2nd year domestic MSc and up to 4th year domestic PhD), which can be used for any reasonable program expense.</p>	<p>The Programs will encourage the Dean of Science to act on this recommendation.</p>	<p>Advocacy for the restoration of an administrative budget for the Programs continues.</p>	<p>Such resource-related matters are outside the purview of the YSGPS; however, we encourage the program and the Dean’s Office to come to a clear understanding about what is needed and what is available.</p> <p>Note that the Toronto Metropolitan University Graduate Student Travel Fund is also available to support graduate students in presenting their research at a regional, national or international conference or equivalent academic</p>

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					event. This initiative is funded by the President's Office, the Office of Vice President Research and Innovation, and the YSGPS.
<p>Recommendation 18.</p> <p>The PRT recommends that subsidizing student travel to conferences at which they have papers accepted should be a high priority, and ideally would have a budget of perhaps \$10,000/year separate from other discretionary program spending.</p>	<p>This recommendation is already current practice within our Programs. The Programs offer a "Peer-Reviewed Accepted Paper Encouragement Reward (PAPER)" program, available to our graduate students to subsidize publication and travel expenses. The budget for this program is funded by the Department of Computer Science who have made a total of \$20,000 per year available.</p>	<p>See comment in recommendation 16 above.</p>	<p>No action required</p>	<p>Not applicable</p>	<p>The YSGPS supports the Program and Faculty responses to this recommendation (please also see response to preceding recommendation).</p>
<p>Recommendation 19.</p> <p>The PRT recommends that the Library's budget for Computer Science materials be increased so that the current collection can be retained, and perhaps even expanded.</p>	<p>The Programs definitely agree with this recommendation for reasons that go beyond the Programs themselves. CS graduate students are very active participants in Library initiatives (like the "Collaboratory") and make extensive use of expensive Computer Science-related literature provided by our Library.</p>	<p>The Faculty of Science encourages the programs and the department to engage with the TMU Library subject librarian to see what can be done.</p>	<p>The Programs will continue to lobby and advocate for additional funding for TMU's Library.</p>	<p>Ongoing</p>	<p>Such resource-related matters are outside the purview of the YSGPS, but it will continue to support efforts and initiatives that ensure appropriate library reserves and other materials for graduate students.</p>
<p>Recommendation 20.</p> <p>The PRT recommends that the effects of any increase in the size of the undergraduate</p>	<p>The Programs agree with this recommendation. However, the recommendation is beyond the ability of the Programs to</p>	<p>The Faculty of Science agrees in principle, noting the limitations imposed upon us by the Strategic Mandate</p>	<p>The Programs will identify realized and anticipated ramific</p>	<p>The Department will discuss their concerns and needs with the Dean of Science and</p>	<p>The YSGPS will continue to coordinate with other key Toronto Metropolitan University offices to grow our graduate</p>

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<p>program, or the size of the faculty, must be paired with a corresponding increase in the size of the graduate program.</p>	<p>implement without increased allocations of domestic graduate student spaces as well as funding (or other subsidies for international students).</p>	<p>Agreement with the provincial government.</p>	<p>ations of the undergraduate program growth on the graduate program. The Programs will consult and seek support to balance or integrate undergraduate program growth with graduate infrastructure.</p>	<p>YSGPS. It is understood that this will require considerable university-wide discussions and strategizing in the coming years.</p>	<p>programs as needed so these reflect changing circumstances and priorities.</p>