



## **FINAL ASSESSMENT REPORT**

### **Executive Summary**

### **Cyclical Program Review**

<b>Degree Program:</b>	<b>Master of Science and Doctor of Philosophy in Materials Science</b>
<b>Components:</b>	
<b>Dean:</b>	<b>Dr. Ken Wilson, Ontario Tech University Dr. Sarah West, Trent University</b>
<b>Date:</b>	<b>August 2025</b>

Under the Ontario Tech and Trent Institutional Quality Assurance Processes (IQAP) and the Ontario Quality Assurance Framework (QAF), all programs are subject to a comprehensive review at least/at minimum every eight years to ensure that they continue to meet provincial quality assurance requirements and to support their ongoing rigour and coherence.

In academic years 2021-2023 a program review was scheduled for Master of Science and Doctor of Philosophy in Materials Science programs. This is the second program review for this program. A timeline of the review is provided below.

<b>Program Review Timeline</b>	<b>Date</b>
Program Review start date:	December 15, 2021
Self-Study submitted/approved:	November 22, 2024
Site Visit:	January 21-22, 2025
External Reviewers Report received:	February 27, 2025
Program Response received:	March 17, 2025
Decanal Response received:	April 23, 2025

In the self-study, the reviewers were asked to investigate faculty renewal opportunities to ensure that both institutions are able to participate in the interdisciplinary program with representatives from the core disciplines, address ongoing challenges with *MTSC 6010H/G: The Chemistry and Physics of Materials*, and ensure competitive financial support for students through balanced institutional and supervisor contributions.

The external reviewers commended the Program for its research impact, committed faculty, strong infrastructure, coordinated teaching, and history of enriching student engagement. Areas of improvement identified by the external reviewers included cross-institutional coordination, unclear administrative processes, and lack of program identity among students.

The review consisted of two external reviewers. During the virtual site visit, the reviewers met with members of the Internal Assessment Team, Faculty, Staff and Students from both institutions and the following individuals:

**Ontario Tech University:**

Dr. Lori Livingston, Provost & VP Academic

Dr. Ken Wilson, Dean - Faculty of Science

Dr. Sean Forrester, Associate Dean of Science

Dr. Joe Stokes, Acting Dean - School of Graduate and Postdoctoral Studies

Dr. Franco Gaspari, Chair of Internal Assessment Team

**Trent University:**

Dr. Michael Khan, Provost

Dr. Sarah West, Dean of Science

Dr. Sanela Martić, Associate Dean of Science

Dr. Craig Brunetti, Dean of Graduate Studies

Dr. Suzanne Bailey, Associate Dean of Graduate Studies

Dr. Andrew Vreugdenhil, Program Director

The external reviewers identified six recommendations to improve the program including strengthening student experience and program effectiveness by improving communication through regular workshops, streamlining administrative processes, expanding funding opportunities, increasing curriculum flexibility, and engaging alumni to support recruitment and retention. The prioritized list of recommendations is available in the Implementation Plan.

A Final Assessment Report (FAR) has been prepared to synthesize the reports and recommendations resulting from the review, identifying the strengths of the program as well as the opportunities for program improvement and enhancement. The Implementation Plan (IP) presents a timeline of the follow-up and resource requirements addressing the recommendations from the external reviewers' report. Both documents, accompanied by this Executive Summary (ES), are subject to approval according to each university's approval processes.

<b>Governance</b>	<b>Document(s)</b>	<b>Type of review</b>	<b>Date</b>
OTU Faculty Council	IP	Feedback	May 6, 2025
OTU Resource Committee	IP	Resource review	May 13, 2025
Trent CPRC	FAR, ES, IP	Review	September 17, 2025
OTU USC/GSC	FAR, ES, IP	Approval	September 23, 2025
Trent Provost	FAR, ES, IP	Approval	
Quality Council	FAR, ES, IP	QAF requirement	
OTU Academic Council	ES, IP	For information	
Trent Senate	ES, IP	For Information	
OTU Board of Governors	ES, IP	For information	
OTU Corporate Website	ES, IP	QAF requirement	
Trent Corporate Website	ES, IP	QAF requirement	

**Due Date for 18-Month Follow-up Report:** October 19, 2026

**Date of Next Cyclical Review:** 2029-2031  
**Timeframe for associated site visit:** Winter 2030

## IMPLEMENTATION PLAN

May 14, 2025

**MSc/PhD Materials Science Cyclical Program Review**

**Deans: Dr. Ken Wilson, Ontario Tech University**

**Dr. Sarah West, Trent University**

The Implementation Plan (IP) presents a timeline of the follow-up and resource requirements addressing the recommendations from the external reviewers' report and is a critical outcome of the Cyclical Program Review process. A Final Assessment Report (FAR) and Executive Summary (ES) are prepared synthesizing the program review reports and responses. These documents are subject to approval according to each university's approval processes and posted on both institutions' corporate website.

The table below presents a timeline of the follow-up and resource requirements addressing the recommendations from the external reviewers' report.

<b>Recommendation</b> <i>(corresponding # from reviewers' report)</i>		<b>Action Item(s)</b>	<b>Specify role of person responsible</b>	<b>Timeline for action and monitoring</b>	<b>Resource Requirements</b>
1.	Improve communication among faculty and students by reinstating the semi-annual workshops. This can improve the sense of belonging among students, and would facilitate easier program-level communication among faculty (for example, course content changes in MTSC 6010). If additional staffing resources would help facilitate this, the program directors should consult their respective Dean. [action by program, perhaps leading to external action]	The Deans support the units reinstating their semi-annual workshop. One suggestion for the seminar series is to run it jointly. The seminars could be held at a mutually agreeable time and use a hybrid mode. This would help reduce costs, provide a regular link between the two campuses, and may lead to a broader range of presentations. One jointly offered seminar per year (or term) could rotate between the institutions.	Ontario Tech: GDP Trent University: Director of Graduate Studies, Program Director, & Academic Administrative Assistant	Will attempt to run the 2025/26 seminar series jointly. Will assess the outcome and success in June 2026 with a decision on how to proceed at that time.	Organizational support as needed from the Dean's Office at both institutions.

2.	<p>Program directors work with Deans and SGS to clarify and improve administrative workflows, including: student registrations for courses held at the partner institutions (to avoid confusing students), and providing clear administrative contact points for different student needs (to avoid overloading staff who administer multiple graduate programs). [action by program and external]</p>	<p>The Grad Admin Assistant at Ontario Tech will work with the graduate program director to ensure regular updates to students.</p> <p>The program should consider onboarding sessions during orientation to explain to students how the process works and outline expectations for students. With two different institutions that use different systems, there is an added layer of complexity to this programs processes.</p>	<p>Ontario Tech: GPD, Dean's Office Trent University: Dean of Graduate Studies, Program Director</p>	<p>To avoid overloading staff in the Dean's Office at Ontario Tech, there is a realignment of duties underway. This will allow better integration of support for the graduate programs and improve the effectiveness of communication with students. Implementation to begin in June 2025 and impact will be reviewed in June 2026.</p>	
3.	<p>Continue to increase funding packages, through multiple channels (supervisor, fee waivers, external funding) [action by program and external]</p>	<p>There is an on-going review by the Dean of Graduate and Postdoctoral Studies at Ontario Tech of minimum funding supports for students. Over the past year there was a negotiated increase in TA wages, which will provide a minimal increase provided that faculty RA contributions remain the same. At Trent, in addition to yearly collectively bargained increases in GTA funding, we also increased research fellowship support for both MSc and PhD students. Faculty in the program should also consider whether increasing faculty contributions should be considered.</p>	<p>Ontario Tech: monitoring by GPD and Dean Trent University: GPD and Dean.</p>	<p>At Ontario Tech, we review the funding supports provided to students via TAships, supervisor supports, and scholarships, on an ongoing basis. We will coordinate with TrentU to ensure fair and equitable funding for students in the program regardless of their home institution</p>	<p>Ontario Tech: Dean of SGPS</p>

4.	Make better use of the library resources and supports to help develop skills such as advanced literature searching and citation and research data management [action by program and external]	A wide variety of resources are available from the library. Faculty members should encourage student in their graduate-level classes and those under their supervision to utilize the skills workshops provided by the library.	Ontario Tech: program faculty members Trent University: University Librarian, Director of Program, and program faculty member	Coordination between the faculty of science and the library is an ongoing process. We see the suggested changes as being complete	Resources already exist via the library at both institutions.
5.	Continue ongoing efforts to increase flexibility in course requirements without diluting rigorousness of programs to increase internal competitiveness in attracting students [action by program]	The program requirement changes concerning MTSC 6010G and 6020G or MTSC 6140G were presented to the Ontario Tech Faculty of Science Council and passed in January 2025. They were replaced by a requirement to complete at least two one-term courses acceptable for graduate credit. This change will provide much needed flexibility for students who complete an MSc in the program and continue on to study for a PhD. It was subsequently passed by Academic Council in Mar. 2025.	Ontario Tech: GPD Trent University: GPD	Complete. Course changes were recommended and approved via the Ontario Tech governance process	
6.	Forge closer connections with program alums whose post-graduation careers can inspire current students (retention) and motivate potential future students (recruitment). Consider inviting them to semi-annual workshops (Recommendation 1) and encourage them to provide testimonials for program	Improved alumni relations and connections is a focus being pursued by the Dean's Office at Ontario Tech. Across our programs we are hosting social events where we bring alumni to campus (or remotely) to meet current students and discuss the path they took to their current positions.	Ontario Tech: Program Faculty, Dean's Office, and Alumni Relations  Trent University:	Currently underway. The new staff support in the Dean of Science Office at Ontario Tech will include communications work. Work will commence in the summer of 2025 and an assessment of the impact and	Dean's Office, Alumni Relations

	advertisements. [action by program]	At Trent, we also support the expansion of alumni engagement. There are a number of on campus resources that could be explored including through the External Relations & Development Office. In addition, these contacts can also be an important source for continuous improvement of the program, by reaching out to alumni to reflect on what worked and doesn't work in the program.	Program faculty, Director of Graduate Program, Alumni Engagement	effectiveness will be completed in June 2026. An inaugural workshop-networking event will be run in the winter of 2026.	
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\*The Deans shall be responsible for monitoring and reporting on the Implementation Plan.

#### Recommendations not Addressed and Rationale

#	Recommendation not Addressed	Rationale
	N/A	N/A

**Due Date for 18-Month Follow-up Report:** October 19, 2026

**Date of Next Cyclical Review:** 2029-2031