



**FINAL ASSESSMENT REPORT**  
**Executive Summary**  
**March 2017**  
**Bachelor of Health Science in Medical Laboratory Science**  
**Program Review**  
**Dean: Dr. Lori Livingston**

Under UOIT's Quality Assurance Framework, all degree programs are subject to a comprehensive review every eight years to ensure that they continue to meet provincial quality assurance requirements and to support their ongoing rigour and coherence.

On the completion of the initial stages of the program review, the self-study brief together with the reviewers' report and the assessment team's response are reviewed by the appropriate standing committee of Academic Council, and are subsequently reported to Academic Council, the Board of Governors and the Quality Council.

In 2014-15 a program review was scheduled for the Bachelor of Health Science in Medical Laboratory Science program. This is the first program review for this program and the internal assessment team is to be commended for undertaking this assignment in addition to an already challenging workload and within very tight deadlines. The following provides a summary of the outcomes and action plans resulting from the review. A report from the program outlining the progress that has been made implementing the recommendations will also be put forward in eighteen months' time.

**External Reviewers:** Dr. Jelena Holovati (University of Alberta) and Dr. Yvonne Yau (The Hospital for Sick Children)

**Site Visit Dates:** October 20-21, 2015

The BHSc Medical Laboratory Science program is unique, being the only direct-entry degree program in Ontario and one of only two in Canada. It thrives in the midst of four other Medical Laboratory Science college diploma-based programs in the province. The 2015 UPR is the most recent of multiple reviews of the BHSc Medical Laboratory Science program since its inception in 2004. Each of these reviews has consistently identified the multiple strengths of the BHSc Medical Laboratory Science program and its value to and strong alignment with the overall vision and mission of UOIT.

**Significant Strengths of the Program**

- Technology enriched, hands-on learning environment
- The MLSc faculty are natural adopters of technology who have taken advantage of the many opportunities to strengthen and innovate with respect to course delivery
- The laboratory equipment, instrumentation and software available in the MLSc laboratories is exceptional

- MLSc faculty have a wealth of clinical experience which they bring to the classroom
- Thirty-two weeks in practicum provides exceptional entry level preparedness
- The clinical project is a very valuable component of the program through its positive impact on the clinical site
- UOIT's focus on professional conduct, through the professional conduct evaluation process, is very important to the development of successful graduates

### **Opportunities for Program Improvement and Enhancement**

- The profession does not have a cohort of PhDs to lead the academic and research growth of the profession and no development of a Master's level program that provides an academic pathway for the medical laboratory science profession
- MLSc has difficulty integrating into the research culture and expectations of the Faculty of Health Sciences and the University
- The exceptional laboratory equipment, instrumentation and software available in the MLSc laboratories is challenging to maintain in a resource challenged environment
- Common to MLSc programs across the province, securing clinical placements has been an ongoing and stressful challenge
- The inability to track the employment of MLSc graduates and to identify the number of graduates that go on to graduate studies puts the program at a disadvantage

### **External Reviewers Reflections on the Program**

The two external reviewers for the on-site visit in October 2015 were carefully selected and their perspectives were relevant and invaluable. The dialogue with faculty, staff, clinical partners, students, and alumni during their on-site visit was thorough and constructive, and congruent with the information provided in the self-study report. The Medical Laboratory Science faculty and staff are in agreement with the external reviewers' reflections on the program's current state of affairs, including the numerous positive aspects that were highlighted and the relevant actionable items as listed in their report. The external reviewers indicated that there were two areas requiring attention.

### **Summary of Reviewer Recommendations and Faculty Responses**

#### **Recommendation**

*Inadequate laboratory space for student training, posing significant potential implications to safety, quality, efficiency, and program costs.*

#### **Response**

Inadequate laboratory space has been identified as a capital resource issue. The program has been extremely fortunate to have received frequent equipment donations from clinical partners and others over time. The external reviewer's have identified concerns given that two laboratories are used house this equipment and to teach all of the laboratory courses. Although the usage of these two laboratory spaces is maximized, there is an impact on teaching. There is also frequent need for the shifting equipment required for one lab with what is needed for the next. Moving the equipment is problematic, as constant repositioning leads to more wear and tear and, therefore, higher than normal repair and replacement costs. Following a 2008 review, a second Biosafety Level II Laboratory (UB3085) was created. A third lab will be available to the program next year.

**Recommendation**

*Improved strategic vision and planning to ensure [the] program's continuous academic excellence and improvement.*

**Response**

The report stated that the program's mission to "prepare highly skilled graduates who are committed to excellence, innovation and evidence based practice in a rapidly changing health care environment" aligns well with UOIT's foundational values of technology, sciences and excellence in professional practice. The reviewers noted, however, the continuing struggle to "fit" the program into the university culture and the absence of several key components such as PhD-trained faculty contributing to research and program oversight, a recognized and collaborative research agenda, a sustainable governance model, data tracking of employment or career advancement of graduates, and an educational pathway to graduate studies. As each of these initiatives requires substantial commitment of resources, appropriate prioritization is the key to advancing the overall strategic fit of the program in the timeliest manner.

Clinical affiliates and graduates consistently provide superb evaluations of the UOIT BHSc Medical Laboratory Science program faculty and staff. A commitment to address the identified recommendations can only enhance the Program's ability to serve its students and the UOIT community.

**Plan of Action**

<b>Proposed Action</b>	<b>Timeline</b>	<b>Person/Area Responsible</b>
Investigate UB 3075 for use as a non-Biosafety Level II teaching space	In process	Dr. Lori Livingston; Sylvie Brosseau; Evelyn Moreau; Connie Thurber
University of Alberta or Dalhousie site visits to investigate synergies or strategies to address some current constraints	July-August, 2016	Dr. Lori Livingston; Evelyn Moreau
Form a planning subcommittee representing all stakeholders	September, 2016	Dr. Lori Livingston; Evelyn Moreau; Medical Laboratory Science faculty, FHSc faculty, clinical affiliates, and program alumni
Create a plan for the BHSc Medical Laboratory Science program which aligns with like plans (e.g. strategic, academic, research) for UOIT and the Faculty of Health Sciences	October, 2016-April, 2017	Dr. Lori Livingston; Evelyn Moreau; Medical Laboratory Science faculty, FHSc faculty, clinical affiliates, and program alumni
The aforementioned plan will address human resource issues, including current faculty workload concerns, the need to build teaching capacity, and succession planning	In process	Dr. Robert Weaver; Sylvie Brosseau; Evelyn Moreau; Dr. Kerry Johnson; Helene Goulding; Connie Thurber; Dr. Lori Livingston
Once developed, fully implement the plan so as to create program sustainability	Beginning May, 2017	Dr. Lori Livingston; all Medical Laboratory Science program Faculty and Staff

**Due Date for 18-Month Follow-up on Plan of Action: July 2017**

**Date of Next Cyclical Review: 2022-2023**