



## Executive Summary and Implementation Plan

### Quality Assurance Cyclical Program Review

#### PhD in Biotechnology, Faculty of Science and Environmental Studies

September 2018

In accordance with the Lakehead University Institutional Quality Assurance Process (IQAP) and the Ontario Quality Assurance Framework (QAF), the Graduate Coordinator for this program submitted a self-study (December 2014). Volume 1 presented the program descriptions and outcomes, an analytical assessment of the program and program metrics including results from a student exit survey along with institutional information and statistical data. Volumes 2 and 3, respectively, provided a collection of the program course outlines and the CV's for each full-time faculty member with teaching responsibility in the program.

Two external reviewers and one internal reviewer, selected by the Senate Academic Quality Assurance Sub-committee (SAC-QA) from a set of proposed reviewers, examined the materials and completed a two-day site visit in January 2015. The site visit included meetings with the Provost and Vice-President (Academic), Acting Deputy Provost, Interim Dean of the Faculty of Science and Environmental Studies, Interim Dean of the Faculty of Graduate Studies, Manager - Faculty of Graduate Studies, Graduate Program Coordinator, former Graduate Program Coordinator, Director of Research Services, seven faculty who are Program Members with current students, and recent alumni. The Review Team toured University facilities, including the Paleo-DNA Laboratory, the Pre-Clinical and Instrumentation laboratories, the laboratories of program members and the Thunder Bay Regional Health Sciences Centre (TBRHSC).

In their report (March 2015), the Review Team provided feedback that describes how the Biotechnology PhD program meets the Quality Assurance Framework evaluation criteria and that the focused approach to multidisciplinary study, research and professional development is consistent with the University's mission and academic priorities "to be recognized as an innovative, comprehensive university that provides an education that is about how to think not what to think".

The admission standards, curriculum structure and delivery, and teaching and assessment methods are appropriate, reflect the current state of the discipline, and are effective in preparing graduates to meet defined program outcomes and the University's doctoral Degree Level Expectations.

The Review Team summarized the many strengths of the PhD Biotechnology program as follows:

“... very impressed by the calibre of the Program Members, opportunities to collaborate with community partners, the material and financial resources available to students, the structure and curriculum of the program and the students themselves.”

“... the past and present Coordinators of the program should be commended for launching such a successful program ...”

Furthermore, the Review Team noted that:

- the courses offered provide a strong foundation for students to develop research proposals and to follow the latter through to dissertation defence,
- the development of skills for independent research lies at the core of the program,
- supervision and interaction with program members of the highest calibre ensures that knowledge and skill attainment are at the cutting-edge of developments within the respective specializations, and
- the multi-disciplinary nature of the program and interaction with community partners make this program innovative and creative.

The Review Team identified areas for improvement through recommendations including:

1. That a long-term vision for the program, that addresses resources for faculty, staff and students, be developed, and
2. That the long-term plan include a marketing element that will raise the profile of the program regionally and nationally.

The Graduate Coordinator, and the Deans of the Faculty of Science and Environmental Studies and the Faculty of Graduate Studies, submitted responses to the Review Team Report (June 2018). Clarifications and corrections were presented followed by a response to each of the recommendations made by the Review Team.

A Final Assessment Report (FAR) has been prepared to provide a synthesis of the external evaluation and internal responses to the recommendations. This report identifies the significant strengths of the program, the opportunities for program improvement and enhancement, and sets out and prioritizes the recommendations that have been selected for implementation.

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

## Implementation Plan (Part A): Program Responsibilities

Recommendations	Proposed Follow-up	Responsibility	Timeline
<b>Recommendation 1: Develop a Vision for the program</b>	Through regularly scheduled program meetings, determine a long-term vision for the program. Consider characteristics of the student cohort and program content and research direction.	Program Coordinator*, Program Members, Deans of FSES and Graduate Studies	Sept 2018
<b>Recommendation 2: Raise the Domestic Profile</b>	Develop strategies to raise profile of program (locally, nationally and internationally)	Program Coordinator*, Program Members, Deans of FSES and Graduate Studies	December 2018
<b>Recommendation 3: International Student Stewardship</b>	<ul style="list-style-type: none"> <li>a) Work with institutional partners to develop strategies for                             <ul style="list-style-type: none"> <li>i. enhancing funding for international students and</li> <li>ii. enhancing training opportunities for international students</li> </ul> </li> <li>b) Schedule regular meetings between international student representatives and administrators to discuss problems and to work towards their resolution</li> </ul>	Dean of Faculty of Graduate Studies*, Program Coordinator, Program Members, Dean of FSES	December 2018
<b>Recommendation 4: Enhance Student Involvement and Interaction</b>	<ul style="list-style-type: none"> <li>a) Consider creating an international student representative position within the Graduate Student Association.</li> <li>b) Consider establishing a “research day” or similar opportunity where all students in the program would present their research.</li> </ul>	Dean of Faculty of Graduate Studies*, Program Coordinator, Program Members, Dean of FSES	December 2018

\*Indicates individual with lead responsibility for the task

## Implementation Plan (Part B): Decanal & Administration Responsibilities

Recommendation	Proposed Follow-up	Responsibility	Timeline
Consider allocation of additional resources to support space and staffing of this program.	As part of the annual budget process, consider allocation of resources to support the program.	Dean FSES*	Annually
Report on progress of the Implementation Plan to the Provost and Vice-President (Academic)	As part of the annual reporting process, monitor progress and provide update to the Provost.	Dean FSES*, Dean of Faculty of Graduate Studies *	Annually

\*Indicates individual with lead responsibility for the task