Executive Summary and Implementation Plan

Quality Assurance – Cyclical Program Review

Master of Science in Engineering – Electrical and Computer Engineering

September 2016

In accordance with the Lakehead University Institutional Quality Assurance Process (IQAP), the Faculty of Engineering submitted a self-study (April 2014). Volume 1 presented the program descriptions and outcomes, an analytical assessment of their programs and program metrics including results from a student 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 member in the Department.

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 from 30 April – 1 May 2014. The site visit included meetings with the Provost and Vice-President (Academic), Dean of the Faculty of Engineering, Dean and Manager of the Faculty of Graduate Studies, Chairs of the Departments of Electrical and Software Engineering, Graduate Coordinator of the program, Director of Research Services, Head of Collection Development (Library), as well as full- and part-time faculty members. The Review Team toured facilities and space including Faculty research laboratories, computing facilities, Thunder Bay Regional Research Institute (TBRRI) laboratories and graduate student office space, and met with graduate students and alumni.

In their report, submitted June 2014, the Review Team provided feedback that describes how the Masters of Science in Engineering – Electrical and Computer Engineering program meets the Quality Assurance Framework evaluation criteria and is consistent with the University's mission and academic priorities. They reported that 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 outcomes and the University's graduate Degree Level Expectations (DLE's).

The Review Team highlighted the following strengths of the program: opportunities for collaboration and interdisciplinary projects are readily available due to the range of highly qualified faculty involved in supervision and teaching, specialized labs enhance the educational experience, small class sizes encourage interaction and many students have published in international conferences and journals, usually as co-authors with a faculty member. The Review Team deemed the MSEng (Electrical and Computer) to be strong with good leadership.

In addition, the Review Team provided recommendations with supporting rationale for future consideration.

The Graduate Coordinator of the program, in consultation with the Dean of Engineering, submitted a response to the Reviewer's Report (September 2014) with updates in July 2016. 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 response to the recommendations. This report identifies the significant strengths of the programs, the opportunities for program improvement and enhancement, and sets out and prioritizes the recommendations made by the Review Team.

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.

Programs covered by this cyclical review:

- *Master of Science in Engineering – Electrical and Computer Engineering*

Implementation Plan (Part A): Departmental Responsibilities

Recommendation	Proposed Follow-up	Responsibility*	Timeline
Improve communications with students	As part of ongoing curriculum review, improve external (e.g. website) and internal (e.g. funding models) with students	Program Coordinator and Department Chair, Dean ENGI and Dean Graduate Studies	Spring 2017
Graduate Studies committee	As part of ongoing curriculum review, Re-consider more formal graduate studies committee structure	Program Coordinator and Department Chair, Dean ENGI and Dean Graduate Studies	Spring 2017
Involve more faculty in teaching	As part of ongoing curriculum review, consider different models for assigning teaching load to participating faculty members	Program Coordinator and Department Chair, Dean ENGI	Spring 2017

Implementation Plan (Part B): Decanal & Administration Responsibilities

Recommendation	Proposed Follow-up	Responsibility*	Timeline
See above			

*The Dean of the Faculty, in consultation with the Coordinator and Department Chairs shall be responsible for monitoring the Implementation Plan. The details of progress made will be presented in the Deans' Annual Reports and filed in the Office of the Provost and Vice-President (Academic).