

## **Cyclical Program Review of Electrical and Computer Engineering One Year Progress Report on Implementation Plan**

At the conclusion of the cyclical program review, a final assessment report and implementation plan was agreed by the Vice-Provost (Teaching and Learning), Dean, Faculty of Engineering and Applied Science, and the Vice-Provost and Dean, School of Graduate Studies. These deans are responsible for monitoring the implementation plan.

Please complete the table below to report on progress made in the past year against the implementation plan. Add further explanation if necessary in the *additional notes* section. The table is to be completed by the academic unit and reviewed by the relevant dean/associate deans.

Please complete this report and return it to [quqap@queensu.ca](mailto:quqap@queensu.ca) by May 15, 2018. The Vice-Provost (Teaching and Learning) will review this progress report and discuss with the Provost. Please note that monitoring reports will be made available to the public on the Provost's Office web site.

### ONE YEAR FOLLOW UP

Recommendation	Proposed Follow-up	Responsibility for Leading Follow-up	Timeline for Addressing Recommendation	Please indicate whether the implementation is on target and on time, and provide a brief description.
<p>1. Complete review of how graduate funding packages are assembled. Ensure transparency in informing students about sources of funding.</p>	<p>Continue and conclude the work that is underway to address this issue.</p>	<p>Department Head</p>	<p>Complete review with a view to having revised process for funding allocation in place by 2017-18 academic year.</p>	<p>We continue to work with the graduate students to increase transparency in their funding packages. A number of meetings with the GECE (Graduate ECE club) were held this year to both modify the reporting of the funding to the graduate students, and to revise the funding model, so as to better accommodate incoming international students.</p>
<p>2. Review curriculum with particular attention to availability of courses, to ensure students can register in courses they need to complete their program in a timely manner. Consider inclusion of core courses on power and control in Electrical Engineering program.</p>	<p>Dedicate curriculum committee meetings to these topics.</p>	<p>Departmental curriculum committee</p>	<p>Summer 2017</p>	<p>The curriculum committee has continued their reviews of the EE and CE undergraduate programs. All current students have had success at completing their programs in a timely fashion. There is continued pressure on the CE program, due to our reliance on the School of Computing to provide core and elective courses. New faculty hires in the area has started to alleviate this. There exist core courses in both power and control in the EE program, up to the third year level. Due to the streams-based structure of our programs,</p>

				no courses above third year are core (except 490/8).
3. With the support of the Human Resources department, complete the review of departmental administrative and staffing structure that is already underway.	Continue and conclude the review that is already underway. Ensure appropriate training and support for staff as they transition to new tasks.	Department Head	Spring 2018	This activity has been suspended, due to changes in HR (both centrally and within FEAS), and a lack of resources internally to pursue independently.
4. Maintain and develop efforts to recruit more women into undergraduate and graduate programs.	Continue current initiatives, and consider new ones, to increase the proportion of female students. Investigate marketing and communication strategies to attract more qualified women as well as	Department Head	Fall 2017	Our approach to this has been based on the premise that female students will find the field more attractive, if they have role models among the faculty. To this end, we have focused our efforts to attracting female faculty members, and where possible and appropriate, highlighting and supporting our existing female faculty members. Of the past six faculty hires, two have been female. This past year, both Associate Heads have been drawn from our female faculty complement. This upcoming year, we have an explicit initiative to secure an increased number of female speakers for our departmental Distinguished Seminar Series, and Industrial Connection Seminar Series.

	domestic PhD applicants.			
5. Work to increase the percentage of undergraduate teaching provided by core faculty.	Ensure that current faculty hiring increases the percentage of undergraduate teaching provided by core faculty.	Department Head	Ongoing over 2017-18 academic year.	As each faculty member teaches the same number of undergraduate courses, meeting this objective depends entirely on hiring new ECE faculty. We have been in active discussion with the Dean about the need to increase the number of faculty members in ECE, to meet this goal.
6. Ensure all teaching assistants receive adequate training and supervision for this role.	Department to verify that all teaching assistants have received appropriate training. Lead instructor for course to supervise course TAs.	Department Head, Graduate Coordinator	Fall 2017	An initiative is underway to develop a standardized training component for all incoming graduate TAs. This involves a course component, as well as TA mentors from the pool of established TAs. The objective is to have this in place by September 2018. There has also been an ongoing discussion about the need for an increased level of faculty support and involvement in TA supervision.
7. Address concerns around quality of laboratories used for undergraduate teaching.	Ensure renovation work that is underway is completed satisfactorily.	Faculty Dean, Department Head	Spring 2018	This activity has been suspended, pending further discussions with the Dean.

**Additional Notes:**

Please note any additional issues affecting progress, if necessary.

The single most significant issue that continues to impact ECE is the need for to increase our faculty complement. While this is not stated in the above recommendations, it is the main determinant directly affecting items 2 and 5, and indirectly affecting items 4, 6 and 7.

By all objective measures (including undergraduate student-to-faculty ratio, and faculty renewal over the past decade), ECE has a depleted faculty complement, relative to other FEAS units and comparable units in other faculties (e.g. School of Computing, Mathematics and Statistics). This despite the fact that undergraduate enrollment has been growing steadily at ~20% for the past 4 years, a trend that is likely to continue. At this stage, ECE attracts ~30% of all incoming second year FEAS students, including all 10 programs.

The most tangible impact of a low faculty complement is an over-reliance on contract instructors (and indicated in item 5). A less tangible (but equally significant) effect is a reduced capacity for the existing departmental faculty to address the departmental administrative duties, which has an impact on items 1, 2, 6, 7, and to some degree 3 above.

ECE has put a great deal of focus on my external communications this past year in emphasizing the need for an increase in faculty complement within ECE. Until our complement of regular faculty increases to reflect an undergraduate student-to-faculty ratio that is more in-line with the other FEAS departments, these challenges will remain, and intensify.