

## Cyclical Program Review of Mechanical and Materials 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 [gugap@queensu.ca](mailto:gugap@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 (N.b., RT refers to review team 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.   |
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| <p>1. Review Mechanical Engineering curriculum in light of Mechatronics Engineering perspective. Sustain MECH 452 (RT 1).</p> | <p>Continue curriculum review begun in Spring 2016. Develop plan, including improvement of the integration and content of the ECE courses in the MME program. Engage all stakeholders, including the Industry Research Advisory Committee.</p> | <p>Department Head to monitor work of relevant committee/faculty group.</p> | <p>Aim to implement curriculum enhancements starting in the academic year 2017/18. Aim to implement changes to MECH 452 in 2017.</p> | <p>MECH 452 has been sustained and renewed with new materials and experiences. This process will continue as the courses that feed into it develop further. MECH 350 (core) labs have been upgraded to incorporate microcontroller based mechatronic elements. MECH 217 (core) was delivered for the first time in Fall 2017, emphasizing the microcontroller applications for measurement and simple control in embedded systems. The UG Chair met with ECE Head, UG Chair, and instructors for ECE courses in the MME program. He emphasized the need to have courses reflect useful applications in mechanical and mechatronics fields. Although the Dean authorized new hires to support mechatronics, ECE courses for MME students continued to be taught by adjunct and temporary faculty through the 2017/18 academic year, with minimal change in delivery. MME has deleted ELEC 310 from our curriculum for 2018/19 to enable taking</p> |



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|   | work to secure appropriate space.  |   |  | Innovation and Wellness Centre to open Fall 2018 and the following courses are slated to be taught in the new 240 seat active learning space: MECH 217, MECH 228, MECH 321, MECH 323, MECH 346, MECH 350, MECH 396/7/8/9 and MECH 464. Each course being taught in the new space is being transitioned to a blended or fully flipped instructional mode.   |
| 3. Work to enhance the graduate student experience with regard to:<br>- Advising (RT 10)<br>- Professional skills-advertise existing opportunities (RT 10)<br>- Identify distinguishing features of M.Eng and M.A.Sc (RT 5)<br>- Consider establishment of graduate students' | Review and inquire into the needs of graduate students. Hold graduate students' research day, Spring 2017. | Departmental Graduate Committee, working closely with School of Graduate Studies. Department Head to monitor progress | Begin review 2016-17 academic year. Investigate interest in graduate student association in 2016-17. | MME is working with FEAS to improve the M.Eng. program. This will lead to changes in recruitment, delivery and management. Graduate Student Day was not implemented due to limited funds and personnel required to organize the event. A graduate student association in MME was not formed. The department added a third SGPS representative and connected the population in events. Plan for 2018/19 to schedule a career development workshop (resume writing, job searching, interview tips) for graduate students in MME, hosted by Career Services |

4. In light of issues around space, morale, and direction, engage faculty, f196.68 539.12(

lounge close to machine shop  
(RT 2).

internship  
program.  
Sessions on  
strategic  
vision for  
future of  
department

office space, upgraded graduate office and  
dry lab space, updated washrooms on the 1<sup>st</sup>  
floor and a separate faculty/staff only lunch  
room. Phase II will include updated  
washrooms on the 2<sup>nd</sup> and 3<sup>rd</sup> floor.

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|   | models (faculty, staff, and through grad alumni network).  |                                    |  | <p>applications from highly-qualified female candidates increased significantly. At this point, offers have been made for the first 2 faculty positions, with both going to women.</p> <p>The department is working with FEAS Marketing and Communications team to update our marketing materials (website and flyers) to increase images of female students and faculty. Plans include reaching out to alumni to profile Online content for courses (videos, etc) that are currently being created has a focus on equity seeking students being used to allow</p> |
| <p>6. Encourage staff, faculty, and students to work together to promote nominations for teaching, staff support, and student achievement awards external to the faculty and university (RT 7).</p> | <p>Seek out opportunities to nominate staff and faculty for awards. Connect to faculty-wide initiatives.</p> | <p>Department Manager and Head</p> | <p>Goal is to have 1 external staff award and 1 external faculty award by the end of 2018.</p> | <p>FEAS Dean is reviewing Staff Excellence award options with assistance of FEAS department managers. Aiming for Fall 2018 awards event.</p> <p>FEAS Dean created Teaching Assistant Excellence Awards and the first recipients were awarded in Spring 2018.</p> <p>Bi-annual staff appreciation events are held at the FEAS level which also encourages getting to know staff counterparts in other FEAS departments.</p> <p>Continue with Silver and Bronze wrench awards for Best Instructor and Best TA as voted on by the MME</p>                             |

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|   |   |   |         | students and presented at the year-end banquet.  |
| 7. Recommend developing new recruiting strategies, together with a review and possible modification of graduate programs, programming and delivery approaches to increase the appeal of graduate programs in MME, particularly to domestic students (RT 8). | Enhance online presence. Promote the department's research and opportunities for graduate students. Work with SGS on strategic recruitment initiatives.                 | Department Manager and Head   | Ongoing | Combined BASc/MASc program approved to promote an accelerated graduate studies program to our top undergraduate students<br>MME has been actively promoted by FEAS<br>FEAS has inaugurated two scholarships to promote domestic PhD students<br>Additional staffing hours added to assist graduate assistant with managing online application pool for a more timely follow-up with potential new graduate students. |
| 8. Recommend tracking information about the placement and career trajectories of graduates from the undergraduate and graduate programs to facilitate future cyclical reviews and support improved recruitment and curriculum design (RT 9).                | A cohort-based graduate outcomes survey is ready to be launched province-wide and the SGS is allows exploring opportunities to track graduate labour market outcomes in | Department Head in conjunction with Dean, School of Graduate Studies and Dean, FEAS | 2017    | MME continue to agree with the Dean that this information would be useful and that the University needs to support this effort through the Office of Institutional Research/Planning.  |

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|  | partnership<br>with<br>Education<br>Policy<br>Research<br>Initiative<br>(EPRI). |  |  |  |
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Additional Notes: