Program Progress Report

Institutional Quality Assurance Program (IQAP) Review

PROGRAM NAME

Date of Site Visit: April 28/29 2021

Progress Report Prepared by: Rafael Kleiman, Chair, Engineering Physics

Please outline below how recommendations from the initial program review have been addressed. [Please fill in one table for each recommendation from the original Final Assessment Report]

Recommendation: Graduate course availability
Responsibility for Implementation: Department/Department Chair
Anticipated Timeline for Completion: Completed
Additional Notes/Commentary:
Progress (check one) ■ Completed ☐ In Progress ☐ Other (please explain)
Department's Comments: After substantial discussion, we modestly increased the number of courses required for our MASc and PhD programs, bringing them more closely in line with other Departments. This builds some additional demand, making it easier to run more courses, due to the minimum number of students required to offer a course. We have added four more 700-level cross-listed courses (MATLS 723, 724, 725 and ECE 740). These are now clearly listed on the Department website and the course listing that goes out to students. We have also added 6B03, 6PP3 to our roster of graduate courses. The Department feels that this is now sufficient, and further additions of 700-level courses would weaken the enrolment in the courses administered by the Department, which would be detrimental to the goal of increasing availability and a diverse course offering. We have now established a primary course offering for the nuclear and non-nuclear branches of our program that will be offered on a regular and predictable schedule.
Dean's Comments: The approach to offering more technical content to its graduate students within a small department was well thought through and appropriate.
QAC Comments (to be filled in by Quality Assurance Committee): QAC reviewed this report and had no further comments or concerns.

Recommendation: Inclusion (recruitment process)
Responsibility for Implementation: Department/Department Chair
Anticipated Timeline for Completion: In Progress through next IQAP review
Additional Notes/Commentary:
Progress (check one) ☐ Completed ■ In Progress ☐ Other (please explain)
Department's Comments: The introduction of Slate has significantly improved and streamlined our application process. We have implemented a back-end process for Department-level approval to mesh with the new system. Together, the admission process is more transparent and equitable, based on clear and objective criteria. Work remains to be done and is ongoing to translate this into a more diverse student cohort.
Dean's Comments: We anticipate greater utility and transparency once Phase II of Slate's implementation is completed but we are satisfied with the current improvements to recruitment.
QAC Comments (to be filled in by Quality Assurance Committee): See above

Recommendation: Student experience
Responsibility for Implementation: Department/Department Chair
Anticipated Timeline for Completion: Completed
Additional Notes/Commentary:
Progress (check one) ■ Completed ☐ In Progress ☐ Other (please explain)
Department's Comments: We have made a full return to in-person instruction for the September 2022 term. The research labs have been operating 'normally' for some time. The transition to the 'new normal' appears to be going well. We expect that students and faculty will gradually embrace the new conditions and make a full return to campus, especially in areas that make the most sense. The Department Seminar Series has been revived and a full slate of speakers is planned for the year. This is expected to be continued in an ongoing way into the future. The series is primarily aimed at graduate students. We feel that there is currently ample TA training through the Faculty and University. TAs also learn on the job and that experience is important for their growth and professional development. Of course, we continue to work to improve the student experience in many and this is ongoing. We feel that the specific items mentioned are now complete.
Dean's Comments: It is unfortunate that an anomaly like the pandemic has been used to interpret the excellence of this department when it comes to its commitment to the student experience. In regards to TA training, Engineering has been concerned about the TA experience long before the university mandated this training and we continue to deliver a much more extensive (and costly) training experience because we think it benefits both undergrads and graduate students. We will continue to work closely with the department as they tackle space issues and finding new experiences to offer.
QAC Comments (to be filled in by Quality Assurance Committee): See above

Recommendation: Student recruitment
Responsibility for Implementation: Department/Department Chair
Anticipated Timeline for Completion: In Progress through next IQAP review
Additional Notes/Commentary:
Progress (check one) ☐ Completed ■ In Progress ☐ Other (please explain)
Department's Comments: Work remains to be done to develop and implement a 'coherent graduate student recruitment strategy' at the Department level. Our faculty members are still comfortable with the very decentralized approach of individual recruitment, be it active or passive. We need to find a way to direct more high quality applicants to faculty members, while respecting their autonomy regarding the specific needs of their research programs. This activity has been hampered and delayed due to the pandemic – mostly in finding the bandwidth to develop new plans and get buy-in for them.
Dean's Comments: We expect all of our departments to continue to improve their outreach activities to attract high quality candidates to our programs. Engineering Physics has a notably high domestic enrollment currently and while we will help them to ensure that pool of candidates remains strong, they are not a department of concern.
QAC Comments (to be filled in by Quality Assurance Committee): See above

Recommendation: Graduate student financial support
Responsibility for Implementation: Department/Department Chair
Anticipated Timeline for Completion: Completed
Additional Notes/Commentary:
Progress (check one) ■ Completed ☐ In Progress ☐ Other (please explain)
Department's Comments: Starting in 2022-23, we have found a sustainable way to set a minimum net pay of $16,000 for MASc students and $20,000 for PhD students. The net pay is now the same for domestic and visa students. Currently the Faculty has not set a guideline for MASc students and has set a minimum net pay of $17,500 for PhD students. We now have a good handle on all aspects of the graduate pay system, a robust planning model for future years, and we closely monitor changes and developments. The revised pay matrix was accomplished by a combination of modest increases in SGS funding and research stipends. We have also set a maximum stipend differential between domestic and visa PhD students of 15% in an effort to maintain equity between these groups, with respect to recruitment (their net-pay is the same). We also have a system in place to communicate the pay levels to the students and their supervisors for increased transparency. A weak spot in communication relating to the change in pay upon transfer from the MASc program to the PhD program has now been identified and resolved. The category of visa MASc remains expensive for the supervisor to fund, in a way that is beyond our capacity to resolve. There is a general concern regarding graduate net-pay in light of inflationary pressure, especially in local housing. There is also concern about the impact on students and their research productivity due to the newly approved permission for graduate students to work up to 20 hrs/week off campus.
Dean's Comments: This topic lies outside the academic standards for which IQAP audits. It is not a matter needing comment by this office.
QAC Comments (to be filled in by Quality Assurance Committee): See above

McMaster University

Recommendation: MEng program
Responsibility for Implementation: Department/Department Chair
Anticipated Timeline for Completion: In Progress through next IQAP review
Additional Notes/Commentary:
Progress (check one) ☐ Completed ■ In Progress ☐ Other (please explain)
Department's Comments: We continue to monitor the MEng program and its development. The increase in the number of available 600- and 700-level courses is more significant for our MEng students than for our thesis students, due to the much higher level of course requirements. We have reviewed our graduate admission process to ensure that the admission criteria are the same for our MEng and MASc students. With that in place, the only difference between the two cohorts is the availability of a supervisor and funding. As such, graduating MEng students are normally eligible to be accepted to the PhD program. A common concern about MEng programs is that the students are at a different academic level than the corresponding thesis students, often requiring additional resources and/or separate courses. With our strict admission process, we feel that the MEng is a net benefit, by a) increasing the enrolment in our courses with students at a comparable level, allowing more courses to be offered and b) by creating a pool of students eligible for acceptance to our PhD program who can be closely vetted. We will continue to monitor the program over the coming years to see if this approach is confirmed.
Dean's Comments: The MEng program in this department does not attract very many students but since it does not burden their resources, it does not present a concern in leaving this option open to interested students. Should the program grow to substantial enrolment numbers, which we don't anticipate, we can turn to our resources in another school within the Faculty to support it, provided the fiscal reasons are sound.
QAC Comments (to be filled in by Quality Assurance Committee): See above