

## Program Progress Report

### Institutional Quality Assurance Program (IQAP) Review

**PROGRAM NAME** The School of Biomedical Engineering - Graduate Program

**Date of Site Visit:** March 2nd, and 3rd; 2021

**Progress Report Prepared by:** Ravi Selvaganapathy, Ram Mishra Lubna Saleh and Maya Sabados

**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]**

<b>Recommendation 1:</b>  Review the content and format of the core courses with consideration of the feedback received from the students.
<b>Responsibility for Implementation:</b>  Ram and Ravi
<b>Anticipated Timeline for Completion:</b>  Meeting with the instructors in the fall to identify opportunities to improve the course offerings and format for implementation in 2022 .
<b>Additional Notes/Commentary:</b>
Progress (check one) <input type="checkbox"/> Completed <input checked="" type="checkbox"/> In Progress <input type="checkbox"/> Other (please explain)
<b>Department's Comments:</b>  The SBME students are continuously being consulted on course content and delivery methods, in addition to introducing new lecturers to the program to keep the content unique and invigorating.
<b>Dean's Comments:</b>  The two core courses are being updated as the program leads have mentioned. The Directors committed to discussing student feedback with instructors and while this may be valuable, we do not assume it is appropriate to be guided solely by that feedback. We also recognize that good progress has been made on broadening the course selections in BME, with many new courses from multiple disciplines being cross-listed under the program.

QAC Comments (to be filled in by Quality Assurance Committee):

**Recommendation 2:** Continue to explore opportunities to encourage additional Health Sciences faculty to contribute to the BME program.

**Responsibility for Implementation:** Ram and Ravi

**Anticipated Timeline for Completion:** Ongoing over the next six years, until the next IQAP review

Additional Notes/Commentary:

Progress (check one)

☐ Completed

☒ In Progress

☐ Other (please explain)

**Department's Comments:** Over the past two years, we have added 16 new Associate Members.

8 (50%) new members come from the Faculty of Health Science

4 (25%) new members from the Faculty of Engineering and

4 (25%) new members from the Faculty of Science.

We have implemented an initiative stimulus where we offer an annual \$2,000 Equalization Credit that will be given to the primary supervisors from the Faculty of Health Science (FHS) who take new masters' or Ph.D. students. In addition, a one-time \$5,000 will be given to FHS supervisors who take on new Accelerated Masters students (these students come to SBME from the 5-year IBEHS program).

Dean's Comments:

The numbers given show good progress has been made on adding more members from the Faculty of Health Sciences to the program and we approve, as a limited pilot initiative, the incentives proposed by the program to getting these new members to transition from participating on committee and becoming supervisors in addition within the program. We have been assured by the Directors that this special funding will be time-limited and clearly justified, to avoid problems of morale and perceived inequity within the membership.

QAC Comments (to be filled in by Quality Assurance Committee):

**Recommendation 3:** Consider adding a requirement, at least at the PhD level, that supervisory committees include members from both Engineering and Health Sciences.

**Responsibility for Implementation:** Ram and Ravi

**Anticipated Timeline for Completion:** Gradual implementation over the next three years

Additional Notes/Commentary:

Progress (check one)

☐ Completed

☒ In Progress

☐ Other (please explain)

Department's Comments: We are evaluating this requirement condition with our Associate Members and hope to implement it gradually over the next 3 years.

Dean's Comments:

We have already expressed in an earlier IQAP response our preference that this should be driven first and foremost by the student's needs. The reviewers' recommendation will be taken as a guidance but neither Faculty supports this as a strict policy.

QAC Comments (to be filled in by Quality Assurance Committee):

**Recommendation 4:** Address sources of mismatch between students' expertise and TA assignments, including inviting students to self-identify mismatched assignments, helping students seek TA opportunities outside the Faculty of Engineering, and, if possible, increasing the number of TA opportunities within the IBEHS program.

**Responsibility for Implementation:** Maya

**Anticipated Timeline for Completion:** Revisit each year and reassess

Additional Notes/Commentary:

Progress (check one)

☐ Completed

☒ In Progress

☐ Other (please explain)

**Department's Comments:** We are currently in the process of working with The Integrated Biomedical Engineering and Health Sciences (IBEHS) and Level 1 Engineering to increase the number of TA positions we will be filling for them with our graduate students. In addition, we now offer an annual survey to our students to indicate and rank their TA preferences with the intent to learn their preferences and match them up with the most suitable TA assignment. We are also working with student supervisors to help us identify and secure the most suitable TA assignments. In working with Facilities outside of the Faculty of Engineering, this year, we secured 1 TA assignment in the Faculty of Science.

Dean's Comments:

We expect the program to investigate where these difficulties originate, determining if the undergraduate programs are perceiving holes in knowledge or other factors in their unwillingness to take these students. The Associate Dean and Dean of Engineering will similarly work with suitable undergraduate programs in the Faculty to increase their acceptance of TAs from BME. RA in lieu arrangements can be considered for students without the requisite background (e.g. undergraduate degrees in Health Sciences) to be teaching in ENG oriented courses, but only as a last resort since a TA offers important skills training.

QAC Comments (to be filled in by Quality Assurance Committee):

**Recommendation 5:** Consider increasing the very modest budget available to the co-directors to support events which include the annual symposium.

**Responsibility for Implementation:** Ram and Ravi

**Anticipated Timeline for Completion:** Discuss with Deans in summer of 2021 and fall of 2021.  
Implement events and activities in 2022

Additional Notes/Commentary:

Progress (check one)

☒ Completed

☐ In Progress

☐ Other (please explain)

**Department's Comments:**

1. \$43, 500 was our original base budget in 21/22, which was increased by \$10,000 to \$53,500 for 22/23 and going forward.
2. We have increased our annual BMEGA (student group association) budget by \$5,000, which may be used for an annual retreat, team building, and soft skills building activities.
3. In addition, we were allotted a one-time \$5 000 for an Invited Named Lecture Series.

**Dean's Comments:**

The increase in funding mentioned was not associated with this IQAP recommendation and may be outside of the scope of the quality assurance assessment. In general, it is expected that all program expenses are covered by program revenue and subject to oversight from the Faculties involved.

**QAC Comments (to be filled in by Quality Assurance Committee):**

**Recommendation 6:**

Explore options to equalize the cost-to-supervisor between FHS and Engineering as a means to reduce the barrier to FHS participation.

**Responsibility for Implementation:**

Associate Deans

**Anticipated Timeline for Completion:** N/A**Additional Notes/Commentary:**

Progress (check one)

☒ Completed

☐ In Progress

☐ Other (please explain)

**Department's Comments:**

We have implemented an initiative as an incentive where we offer an annual \$2,000 Equalization Credit that will be given to the primary supervisors from the FHS who take new masters' or PhD students.

**Dean's Comments:**

This pilot initiative has been requested by the leadership of the program, however, once again the reviewers are offering recommendations outside of the scope of the review. In evaluating this initiative, we reiterate the importance of investigating the extent and underlying causes of barriers to FHS supervision.

QAC Comments (to be filled in by Quality Assurance Committee):

**Recommendation 7:** The co-directors might consider a regular meeting with the Associate Deans at least twice per year to review progress and help program growth. These meetings might include the leaders of each of the 3 research themes.

**Responsibility for Implementation:** Ram and Ravi

**Anticipated Timeline for Completion:** Fall 2021

Additional Notes/Commentary:

Progress (check one)

☒ Completed

☐ In Progress

☐ Other (please explain)

**Department's Comments:**

Biannual meetings with Mike Thompson (Associate Dean of Engineering) and Steve Hanna (Associate Dean of Health Sci.) are being set to review progress and deliberate potential program growth.

Dean's Comments:

We agree with the suggestion for periodic consultations with the Associate Deans and we look forward to these meetings.

QAC Comments (to be filled in by Quality Assurance Committee):

**Recommendation 8:** A fundraising and development strategy would be helpful to clarify the expected roles and responsibilities of BME and the two Deans' offices.

**Responsibility for Implementation:** Deans of Engineering and Health Sciences

**Anticipated Timeline for Completion:** N/A

Additional Notes/Commentary:

Progress (check one)

☐ Completed

☐ In Progress

☐ **Other (please explain)** This is under Dean's purview.

**Department's Comments:**

This is under Dean's purview.

Dean's Comments:

Fundraising beyond the core program budget based on student enrolments, is a departmental/program matter, and not "Dean's purview". We note that this is among several suggestions from the reviewers about funding that may be considered out of scope for an academic review.

QAC Comments (to be filled in by Quality Assurance Committee):



**Recommendation 9:** There might be a disproportionate benefit from a small investment to increase the frequency of the very popular student events.

**Responsibility for Implementation:** Ram and Ravi

**Anticipated Timeline for Completion:** Fall 2021

Additional Notes/Commentary:

Progress (check one)

☒ Completed

☐ In Progress

☐ Other (please explain)

**Department's Comments:**

We have secured a budget increase for our McMaster Biomedical Engineering Graduate Association (BMEGA) student group from \$1,500 to \$5000 for student events, annually, allowing them to run a very popular annual BMEGA Retreat and other student team-building activities.

Dean's Comments:

QAC Comments (to be filled in by Quality Assurance Committee):