REPORT OF ACADEMIC STANDARDS COMMITTEE
Report #W2021–1; January 2021

In this report the Academic Standards Committee (ASC) brings to Senate its evaluation and recommendation on the following items:

- **PERIODIC PROGRAM REVIEW – Midwifery Education Program, Faculty of Community Services**
- **PERIODIC PROGRAM REVIEW – Biomedical Engineering, Faculty of Engineering and Architectural Science**
- **For Information: 1-year follow-up report for Periodic Program Review: Nursing; 2-year follow-up report for Periodic Program Review: Graphic Communications Management**

A. PERIODIC PROGRAM REVIEW – Midwifery Education Program, Faculty of Community Services

FINAL ASSESSMENT REPORT (FAR)
In accordance with the Institutional Quality Assurance Process (IQAP)**,** this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the undergraduate **Bachelor of Health Sciences – Midwifery** program. The report identifies the significant strengths of the program, together with opportunities for program improvement and enhancement, and it sets out and prioritizes the recommendations that have been selected for implementation.

The Implementation Plan identifies who will be responsible for leading the implementation of the recommendations; who will be responsible for providing any resources entailed by those recommendations; and timelines for acting on and monitoring the implementation of the recommendations.

SUMMARY OF THE PERIODIC PROGRAM REVIEW OF THE MIDWIFERY EDUCATION PROGRAM
The Midwifery Education Program (MEP) submitted a self-study report to the Vice-Provost Academic on November 6, 2019. The self-study presented the program description and learning outcomes, an analytical assessment of the program, and program data including the data collected from students, alumni, and employees along with the standard University Planning data tables. Appended were the course outlines for all core required and elective courses in the program and the CVs for all faculty members in the MEP and all other instructors who have recently taught core courses.

Two arm's-length external reviewers, Dr. Kellie Thiessen, Associate Professor and Director, Bachelor of Midwifery Program, College of Nursing, Rady Faculty of Health Sciences Helen Glass Centre for Nursing, University of Manitoba, and Deepali Upadhyaya, Associate Professor and Interim Coordinator, Bachelor of Midwifery Program, Faculty of Health, Community, and Education, School of Nursing and Midwifery, Mount Royal University, were appointed by the Dean of the Faculty of Community Services from a set of proposed reviewers. The Peer Review Team (PRT) reviewed the self-study documentation and then conducted a site visit at Ryerson University from January 21 to 22, 2020.

The visit included meetings with the Vice-Provost Academic; Dean, Faculty of Community Services; Associate Dean, Undergraduate Studies, Students and Pedagogy; and the Director, MEP. The PRT also met with several other members of the MEP including staff, students, preceptors, teaching practice coordinators, faculty members, as well as with alumni, Ryerson student services representatives, Executive Director of the OVPECI, and the Chief Librarian. A general tour of the campus was provided, including Library services, Student Learning Centre, Human Rights Services, Aboriginal Student Services, Daphne Cockwell Health Sciences Complex, Clinical Simulation Lab, and the MEP offices. The PRT also toured the Toronto Birth Centre, which included a discussion with students in interprofessional placements at the Centre.

In their report, dated February 18, 2020, the PRT provided feedback that describes how the MEP meets the IQAP evaluation criteria and is consistent with the University's mission and academic priorities.

The main areas of strength identified by the PRT include the embeddedness of Indigenous content into the curriculum, as well as its hiring and outreach practices, interprofessional placements which allow students to experience a 'bigger picture', and incorporation of an 'Academic Day' in the clinical courses.

The PRT also identified areas for improvement, including application of a critical lens on the program's admissions policy to address potential inequities, more structured peer review of cases that students experience in clinical courses, and a redesign of the Reproductive Physiology course.

The Director of the MEP submitted a response to the PRT Report on April 2, 2020. The response to both the PRT Report and the Program's Response was submitted by the Dean of the Faculty of Community Services on August 17, 2020.

The Academic Standards Committee completed its assessment of the MEP Review on November 23, 2020. The Committee indicated that a thorough, analytical, and self-critical program review was conducted. The program integrated into the developmental plan feedback from students, alumni, employers, and peer reviewers, and outlined a comprehensive plan for program enhancements moving forward.

The Academic Standards Committee recommends that the program continue, as well as provide a one-year follow-up report by June 30, 2022, to include:

1. Updates on the status of the initiatives outlined in the Implementation Plan;
2. A review and update of course outlines to ensure compliance with Policy 166 Course Management.

Presented to Senate for Approval: January 26, 2021
Start date of next Periodic Program Review: 2023-24

SUMMARY OF THE REVIEWERS' RECOMMENDATIONS WITH THE PROGRAM'S AND DEAN'S RESPONSES

RECOMMENDATION 1. The MEP Aboriginal Student Coordinator (ASC) who supports Indigenous students and Indigenizing efforts of the programs is a part-time position. However, reviewers were given the recommendation by stakeholder interviewees that the hours of this position had decreased and that it was recommended to be 24 hours per week at a minimum.
Department's Response: It is an accurate observation that we had been unable to find an ASC to fill this position adequately during the Fall semester. The newly hired ASC however has re-established a visible presence, office hours and is actively engaging with Indigenous students in an effective way. This role is vital. It is obvious that the compensated work hours in this role should be increased. We are hoping to sustain this role with more permanency than can be offered with the multiple grants that currently fund this part-time position.
Dean's Response: The role is currently funded through a variety of small grants, and the School is hoping to sustain the role with a more permanent form of funding. While the Dean's Office cannot now commit to more funding for this position, we support the School's response and efforts to maintain this position. Additionally, the Dean's Office encourages the School to draw upon and work with Lynn Lavallee, Strategic Lead, Indigenous Resurgence for FCS to support the work of the School-based ASC.

RECOMMENDATION 2. Ensure financial assistance for Indigenous students.
Department's Response: The National Council of Aboriginal Midwives (NACM) and the Association of Ontario

Midwives (AOM) have been in discussions with the MEP to widen the endowments, scholarships, and grants for Indigenous students.
Dean's Response: The Dean's Office supports the School's response and approach and encourages the School to utilize Lynn Lavallee, Strategic Lead, Indigenous Resurgence for FCS to support these efforts.

RECOMMENDATION 3. Ensure outreach to Indigenous communities is completed and maintained.
Department's Response: The ASC performs community outreach to attract Indigenous students. The MEP will continue to forge relationships in the Indigenous communities and to partner with Indigenous recruiters in HR and the rest of the university.
Dean's Response: The Dean's Office supports the School's response and approach. The Dean's Office encourages the School to contact Dani Gomez-Ortega, Manager of Student Experience, for additional supports relating to outreach to Indigenous applicants.

RECOMMENDATION 4. Ensure Indigenous students are given the opportunity to be mentored by Indigenous midwives. This has been seen to work especially well with clinical placements at Seventh Generation Midwives of Toronto and with various placements that access the Toronto Birth Centre.
Department's Response: Currently the Black, Indigenous, and People of Color (BIPOC) mentorship program, National Aboriginal Council of Midwives (NACM) and the ASC provide access to Indigenous mentors. This could be strengthened. The hiring of an Indigenous midwifery professor will allow more midwifery courses to be taught by an Indigenous professor. The ASC and NACM will be consulted for improving branding, media communications, community activities (e.g., powwows) to make the MEP a more visible option for prospective Indigenous students. Continue to advocate with the Canadian MEPs for Indigenous placements nationally when the numbers of provincial placements are inadequate.
Dean's Response: The Dean's Office supports the School's response and approach.

RECOMMENDATION 5. Ensure more curriculum taught and developed by Indigenous midwives.
Department's Response: Agreed. The development of the Indigenous Anatomy & Physiology course continues. Indigenous content is being infused into MWF11A/B and will be evaluated. Indigenous courses will be embedded into the proposed Master's program curriculum.
Dean's Response: The Dean's Office supports the School's response and approach.

RECOMMENDATION 6. Although the Truth and Reconciliation Commission of Canada (2015) recommends a required Indigenous course in nursing and medical schools with various elements (e.g., Indigenous history/health, anti-racism, conflict resolution, etc.), it is recommended that in addition to the course Aboriginal Childbearing, the content may also be scaffolded into the RU MEP curriculum.
Department's Response: Agreed. This content is already included in MWF150 and MWF11A/B but the newly developed core Indigenous competencies could be used by Indigenous faculty within other existing courses.
Dean's Response: The Dean's Office supports the School's response and approach.

RECOMMENDATION 7. Formalize BIPOC designated clinical placements.
Department's Response: Agreed. Presumably, there are two reasons for this recommendation, 1. Provision of cultural safety for racialized students and 2. Providing clinical experts who work within BIPOC communities which marks the first step in passing along their expertise and knowledge in working with their communities and thereby growing their own community midwives. The consortium placement committee will be consulting about the development of special BPOC or Black Alliance third year placements that will be focused on policy, research and creative change or social innovation. The committee is also considering risk benefit analysis of also having specially designated BPOC placements identified and run similarly to the Aboriginal placements currently designated.
Dean's Response: The Dean's Office supports the School's response and approach.

RECOMMENDATION 8. Increase and improve current mechanisms for supporting students of colour.
Department's Response: Agreed. The BIPOC mentorship program is being evaluated to see how improvements might be made. Funding has been requested to increase the number of media and digital tools or webinars that could be organized to build esteem and promote resilience of both BIPOC midwifery mentors and student mentees. In particular the needs of students who self-identify as both students of colour or from the African Diaspora and also Indigenous have been identified. Current challenges and critical issues within the student body who hold intersecting identities and experience multiple oppressions or isolation are surfacing. Creative ways of addressing their needs, providing expert advice and referrals for support are currently being addressed.
Continue mentorship program, and support student-led equity strategies, make referrals to HR, OVPECI and equity specialists. The student union, ARMS, has begun initiatives such as communication workshops to build capacity for diverse students within the MEP to work more effectively with each other and to manage intra-student conflict. Just as an equity book club has been launched for faculty, staff and students will be invited to have their own equity reading circles.
Dean's Response: The Dean's Office supports the School's response and approach. The Dean's Office has launched an Anti-Black Racism Action Plan for the coming academic year and encourages the School to draw upon
Faculty-level supports in this arena.

RECOMMENDATION 9. Invest more in resources for mentoring students of colour.
Department's Response: Student engagement funding has proven to be inadequate to meet all the needs. External funding will be sought to supplement internal funding.
Dean's Response: The Dean's Office supports this response and encourages the
School to draw upon Faculty-level supports that are available as part of the FCS Anti-Black Racism Action Plan.

RECOMMENDATION 10. Share knowledge resources related to diversity and inclusion with clinical teaching practice sites.
Department's Response: There is a dearth of resources for equitable teaching and learning (both in academia and clinical placements). Many of the resources amassed so far are represented in web resources such as www.equitymidwifery.org. The director is a member of an international educators' equity consortium that is currently seeking funding for building a database and think-tank for this reason. Seminars, equity training and faculty development continues locally. Consultant Stacy Alderwick has been contracted to deliver the first day-long workshop for the consortium Feb 11, 2020 (http://www.companylisting.ca/Alderwick_Associates/default.aspx)
Dean's Response: The Dean's Office supports the School's response and approach.

RECOMMENDATION 11. Reproductive Physiology (MWF201) has too much emphasis on embryology; consider broader teaching of physiology as it relates to the peripartum period. A recommendation is to support the current contract faculty to redesign the course through expertise in the RU Centre for Excellence in Teaching in Learning. Of note, other Canadian programs also report similar revision suggestions to their reproductive physiology courses.
Department's Response: Agreed. There will be a curricular review of MWF201 to decrease the embryology content. This course is taught using lecture and flipped classroom. It is not an online tutorial or problem-based methodology any longer.
Dean's Response: The Dean's Office supports the School's response and approach.

RECOMMENDATION 12. The Interprofessional (IP) Courses (i.e., MWF305, 315) have content that does not relate to placements and too much of an emphasis on discussion boards. In addition, learners stated that the Problem-Based structure does not work well with online courses. One suggestion is for more structured peer review of cases that students experience in clinical.
Department's Response: The MEP has begun a review of the third-year IP courses.

Dean's Response: The Dean's Office supports the School's response and approach.

RECOMMENDATION 13. IP courses should be evaluated to ensure the complexity of courses is more organized and benefits learners in a more efficient way without draining RU MEP resources.
Department's Response: The MEP recognizes that these third-year courses are due for re-evaluation. This process has just begun. Considering feedback from students and preceptors, namely that one year of IPE placements might contribute to the uneven skills acquisition demonstrated by the MWF320 students, it may be necessary to reduce the IP placements to one semester only and to increase the number of midwifery placements in both second and third year. This is currently being reviewed by the Consortium. There will be challenges in acquiring adequate midwifery placements to meet this goal. It is hoped that any curricular changes would still afford students the option of having international, rural, and remote or Northern placements. These have been consistently sought by students who desire the opportunity to prepare for the future career opportunities in low resource settings.
Dean's Response: The Dean's Office supports the School's response and approach.

RECOMMENDATION 14. In the case that a student withdraws or fails a clinical course there is no immediate option for remediation. A student will have to wait until the next iteration of the clinical course, which is typically in a year's time. In the interim, a student, who likely needs more support and not less, will suffer deskilling and lack of access and a means to practice and strengthen skills. One way to combat this issue is to create a floating independent clinical course, which can be offered or canceled based on student need. Such a course would have individualized learning objectives tailored to each student situation and suffice to count for the failed/withdrawn clinical or to retain clinical skill until the next iteration of the course. They would be a requirement in the case that a student failed and CUPE instructors could be hired to act as tutors based on need.
Department's Response: Agreed the curriculum does not immediately permit a student to repeat a course but they must wait for the following year when the course is offered. It is one of the most stressful aspects of our program. The course MWF370 already exists and it is utilized for students to regain or to build clinical skills prior to commencing a clinical course. It is strategically scheduled at the students' convenience prior to the next clinical course taken and lasts at least 8 weeks. There is no academic work; nor are there any clinical evaluations or assessments. It provides a flexible opportunity for the student to make up for leaves of absence or to build confidence after a failed course.
This course information might not have been provided, although it was mentioned in the P&I handbook. It may also become necessary to provide an updated course description for the MEP Calendar so that this course is not necessarily restricted to international students wishing to audit Canadian midwifery models (the course was also utilized in this way in the past.).
Dean's Response: The Dean's Office supports the School's response and approach.

IMPLEMENTATION PLAN

RECOMMENDATION 1. The MEP Aboriginal Student Coordinator (ASC) who supports Indigenous students and Indigenizing efforts of the programs is a part-time position. However, reviewers were given the recommendation by stakeholder interviewees that the hours of this position had decreased and that it was recommended to be 24 hours per week at a minimum.
Rationale: Indigenous students in the BIPOC student collective report difficulties engaging with the ASC in 2018 when there was a transition to a new ASC.

Implementation Actions:

- *Wide search for ASC*
- *Obtain referrals from Indigenous midwives and instructors*
- *Obtain referrals from Lynn Lavallee, FCS Lead for Indigenous Resurgence*
- *A new hire was made in Spring of 2019 of Denise McLeod Booth who is well known in the Indigenous community due to her outreach, activism, work with the Toronto Birth Centre and teaching at George Brown College. She has already engaged students with online socials, feasts, research RA positions and student surveys to explore concerns and desires of Indigenous students. Monthly faculty meeting items to report starting January 20, 2021.*
- *Findings of her research, evaluation of her student engagement in 2019-2021 will be presented to faculty by Spring 2021.*

Timeline: *Re-evaluate by 1 year report, June 30, 2022.*

Responsibility for
  a) **leading initiative:** *Director*
  b) **approving recommendation, providing resources, and overall monitoring:** *Dean FCS*

RECOMMENDATION 2. Ensure financial assistance for Indigenous students.

Rationale: The RBC health professional loan is no longer available and low resourced students such as Indigenous students face significant financial barriers to enrollment in the MEP despite the Aboriginal
Admissions Process.

Implementation Actions:

- *Review with faculty*
- *Work with FCS Advancement staff to acquire new scholarships, grants, loans*
- *Engage assistance of RASS and Lynn Lavallee, Faculty Lead for Indigenous Resurgence in FCS.*
- *Ensure that students are aware of the supports and resources through the National Aboriginal Council of Midwives (NACM)*
- *reviewing the program policies around taking breaks from the program and readmission to the program*
- *Monitor student enrolments with Admissions Committee*
- Quarterly Admissions meeting items starting January 20, 2021.

Timeline: *Re-evaluate by 1 year report, June 30, 2022.*

Responsibility for
  a) **leading initiative:** *Director*
  b) **approving recommendation, providing resources, and overall monitoring:** *Dean FCS*

RECOMMENDATION 3. Ensure outreach to Indigenous communities is completed and maintained.

Rationale: This is a key part of maintaining Indigenous student enrollment.

Implementation Actions: *e.g.*

- *Review with faculty*
- *Continue to consult with Indigenous-identified faculty and instructor, practices and preceptors, as well as NACM.*
- *Monthly ASC meeting items starting January 13, 2021.*
- *Include Indigenous/Aboriginal Student Coordinator (ASC) in faculty meetings, plans for Midwifery Speaker Series, and other student engagement activities*
- *Ensure that Indigenous student RAs are hired for Indigenous-related research and activities*

Timeline: *Re-evaluate by 1 year report, June 30, 2022.*

Responsibility for
  a) leading initiative: Indigenous faculty and director
  b) approving recommendation, providing resources, and overall monitoring: Dean FCS

RECOMMENDATION 4. Ensure Indigenous students are given the opportunity to be mentored by Indigenous midwives. This has been seen to work especially well with clinical placements at Seventh Generation Midwives of Toronto and with various placements that access the Toronto Birth Centre.

Rationale: The student surveys and focus groups indicate that concordant learning where an Indigenous midwife is paired with an Indigenous student and also learning Indigenous traditions is more effective and satisfying than simply pairing students into a midwifery practice group that is "designated Indigenous" by virtue of 35% of the clientele and midwives self-identifying as Indigenous (the recommendation of the National Aboriginal Council of Midwives which sought to maximize the numbers of specially designated Indigenous Placements).

Implementation Actions:
- Re-evaluate the definition of "Indigenous Placements" with the help of the newly formed Consortium MEP Anti-racism and Action Committee, and the Indigenous community and NACM.
- Review across the Consortium at the director, faculty and Placement Committee levels.
- Implement a study of the numbers of Indigenous placements that could offer traditional knowledge sharing as defined by self-identified Indigenous midwives.
- Formalize the process for responding to students' requests for interprovincial midwifery placements in their own Indigenous communities despite the current funding agreements from the MOHLTC to prioritize Ontario placements. NACM sought to maximize the number of placements. The process began in 2019-2020. Re-evaluate 2022.
- Explore funding mechanisms for out-of-province preceptors.
- Work with Placement Committee to redefine placement types in the Policy & Procedure Manual and to be transparent in the definitions used to minimize confusion
- Monitor demand for Indigenous placements following new definitions of specially designated Indigenous placements. Monthly faculty meeting items starting January 13, 2021.

Timeline: Course development complete by Winter 2022 Proposal to Senate by June 2022
Active in calendar and available for students to enroll by Sept of 2023

Responsibility for
  a) leading initiative: e.g., Program Chair/Director
  b) approving recommendation, providing resources, and overall monitoring: e.g. Faculty Dean, UPO

RECOMMENDATION 5. Ensure more curriculum taught and developed by Indigenous midwives.

Rationale: Representation is important to Indigenous students. Indigenous midwives provide mentorship, empowerment and diverse epistemologies. *The BIPOC students have repeatedly requested more representation.*

Implementation Actions:
- *For the last hiring round, the posting highlighted the goal of the MEP to diversify the faculty and extra points were provided for lived experience of race.*
- *The MWF108 Aboriginal Childbearing course was changed from an elective to a required course.*
- *Complete development of The Indigenous Anatomy & Physiology (A&P) course, which could be launched by 2022 Winter and could be taught by an Indigenous instructor.*
- *Review with faculty*
- *Implement assessment/approvals process for integration of Indigenous concentrations into a masters curriculum*
- *Monthly faculty meeting items starting January 13, 2021.*
- *Clearly communicate availability of concentrations and registration process to students.*
- *Monitor course availability*
- *Monitor student enrollments in BLG10A/B versus the new Indigenous A&P course.*
- *Faculty course evaluations and MEP student evaluations of this course will be conducted and reviewed.*

Timeline: *Re-evaluate by 1 year report, June 30, 2022.*

Responsibility for
  a) leading initiative: *Director and Indigenous faculty*
  b) approving recommendation, providing resources, and overall monitoring: *Dean FCS*

RECOMMENDATION 6. Although the Truth and Reconciliation Commission of Canada (2015) recommends a required Indigenous course in nursing and medical schools with various elements (e.g., Indigenous history/health, anti-racism, conflict resolution, etc.), it is recommended that in addition to the course Aboriginal Childbearing, the content may also be scaffolded into the RU MEP curriculum.

Rationale: The new CMRC competencies and BIPOC students call for increased attention to TRC recommendations. The TRC was primarily focusing on Indigenous students rather than BPOC.

Implementation Actions:
- *Develop tracking of Indigenous historical, health, anti-Indigenous racism and conflict resolution with Curriculum Committee*
- *Review with faculty: 2 courses per year will be evaluated until the entire curriculum is reviewed; Senior research RAs will be hired to assist in this work. Monthly faculty meeting items starting January 13, 2021.*
- *At the annual Work & Planning for both the RU MEP and the Consortium develop new required content for each course across the curriculum*
- *Clearly communicate this intention with students through student-faculty meetings, school newsletter, School Council.*
- *Monitor student evaluations*

Timeline: *Re-evaluate number of courses reviewed/revised by 1 year report, June 30, 2022.*

Responsibility for
  a) leading initiative: *Director*
  b) approving recommendation, providing resources, and overall monitoring: *Dean FCS*

RECOMMENDATION 7. Formalize BIPOC designated clinical placements.

Rationale: Specially designated BIPOC placements have been recommended by students, midwives. The research supports concordant learning in BIPOC populations.

Implementation Actions:
- Create the Consortium MEP Anti-racism Action Committee (completed in summer 2019)
- MAAC will propose new Specially Designated Placement (SDP) definitions for Black, Indigenous and People of Colour. August 2020 Black SDP placements were defined in collaboration with students at consortium-wide BIPOC student town halls and implemented for the first time with the MWF120 first clinical placement lottery in 2019 Fall. These placements launched in Winter 2020 for the first time.
- Monthly faculty meeting items starting January 13, 2021.
- Implement assessment and evaluation into the existing preceptor/practice evaluation process
- Implement preceptor's feedback feed-back on online survey after every placement to address their perspectives re. curricular changes and student-preceptor relationships.
- Add demographics to measure concordance in the Placement Evaluation Tool.
- Move to online, survey-type preceptor and practice evaluation (Google Form or Opinio) to facilitate accessibility
- Clearly communicate new SDP to preceptors, tutors, and faculty.
- Prepare report for the first full year of SDP by Spring 2021.

Timeline: BPOC placements available to students beginning with Fall 2020 lottery
POC placements planned to start with Fall 2021 lottery

Responsibility for
   a) leading initiative: Clinical Experience coordinator and Director
   b) approving recommendation, providing resources, and overall monitoring: Dean FCS

RECOMMENDATION 8. Increase and improve current mechanisms for supporting students of color.

Rationale: the student focus groups and race reports describe reports of trauma, dissatisfying learning environments, and lack of expertise in addressing disputes**.** *There are significant numbers of incidents in the classroom and clinical placements identified by students.*

Implementation Actions: *e.g.*
- *Continue to evaluate the BIPOC mentorship program*
- Widen search for a more permanent BIPOC mentorship administrator position held by a graduate prepared BIPOC instructor who can devote the time to improved administration, pairing of mentors and continuing education/support of student mentees and midwife mentors.
- Complete evaluation of the BIPOC mentorship program by February 2021 and report findings to the Consortium

- Consult EDI, Human Rights, Legal, and Disability Studies departments at Ryerson.

Timeline: *Re-evaluate by 1 year report, June 30, 2022.*

Responsibility for
   a) **leading initiative:** *Director, Clinical Education Coordinator, BIPOC mentorship Senior Research Associate*
   b) **approving recommendation, providing resources, and overall monitoring:** *Dean FCS*

RECOMMENDATION 9. Invest more in resources for mentoring students of color.

Rationale: The student focus groups and race reports describe reports of trauma, dissatisfying learning environments, and lack of expertise in addressing disputes.

Implementation Actions: *e.g.*
- *Develop online tools, social media, newsletter,*
- *Continue to evaluate the BIPOC mentorship program*
- Utilize funding from equity grants and student engagement grants to fund research, evaluation and activities.
- Develop BIPOC student engagement portal to house resources for BIPOC students (The D2L Everyone's MEP Orientation ORG was developed in 2019 but this can be transitioned into more accessible resources on the MEP website, possibly using a Moodle).
- January 2021, new website with accessible IT was launched & web designers are currently working on development of the portal for BIPOC students & placements.
- Widen search for a more permanent BIPOC mentorship administrator position held by a graduate prepared BIPOC instructor who can devote the time to improved administration, pairing of mentors and continuing education/support of student mentees and midwife mentors. This was achieved in January 2021 with the hire of a PhD prepared senior researcher for the BIPOC mentorship program administrator role.
- Engage EDI consultant to advise re equity infused, non-complainant driven dispute resolution processes. Feb 2021, Stacey Alderwick contracted to address faculty in Work & Planning Meeting.
- Proposal of Associate or Assistant Director Role 1.0 FTE with 0.5 teaching and 0.5 clinical placement coordination and liaising with practices.
- Monthly faculty meeting items starting January 13, 2021.
- Proposal to OVPFA by Winter 2021 in hopes of posting for hire by Summer 2021.
- Monitor how well the increased hours and protected hours of work for placement liaison work improves resources for preceptor training.

Timeline: *Re-evaluate by 1 year report, June 30, 2022.*

Responsibility for
  a) **leading initiative:** *Director & BIPOC mentorship Senior Research Associate*
  b) **approving recommendation, providing resources, and overall monitoring:** *Dean FCS*

RECOMMENDATION 10. Share knowledge resources related to diversity and inclusion with clinical teaching practice sites.

Rationale: Clinical Placements continue to be a challenging and traumatic experience for some BIPOC students.

Implementation Actions:
- Develop more accessible and engaging methods of continuing education for preceptors
- Develop anti-racism, anti-oppression, trauma informed content for continuing education based upon consultation with equity experts.
- Continue to recruit placements with a commitment to anti-racism and diverse preceptors.
- Implement new policies to make current preceptor training mandatory prior to placement of students
- Clearly communicate these strategies with students at student-faculty meetings, School Council, newsletter
- Monitor & evaluate trends in disputes surrounding clinical placement
- Continue to develop anti-racism training specific for midwifery education. Commenced in 2020.
- Annual Work & Planning Meetings with consortium staring February 16, 2021 and with RU specific quarterly starting Sept 2021.
- Begin curriculum for continuing education and graduate program courses on infusing equity into clinical education that is trauma informed.
- New Placement liaison/Assistant Director position: Proposal to OVPFA by Winter 2021 in hopes of posting for hire by Summer 2021.
- Monitor how well the increased hours and protected hours of work for placement liaison work improves resources for preceptor training.

Timeline: *Re-evaluate by 1 year report, June 30, 2022.*

Responsibility for
  a) **leading initiative:** *Clinical Education Coordinator &Director*
  b) **approving recommendation, providing resources, and overall monitoring:** *Dean FCS*

RECOMMENDATION 11. Reproductive Physiology (MWF201) has too much emphasis on embryology; consider broader teaching of physiology as it relates to the peripartum period. A recommendation is to support the current contract faculty to redesign the course through expertise in the RU Centre for Excellence in Teaching in Learning. Of note, other Canadian programs also report similar revision suggestions to their reproductive physiology courses.

Rationale: Student focus groups indicate that the course could do with redesign. The last course revision in 2012 increased the vaccination and immunology content but did not address other content.

Implementation Actions:
- Develop new content in collaboration with Curriculum Committee
- Review with faculty (Science lead)
- Implement assessment/approvals process for integration of new content into curriculum by October 2021 Calendar deadline.
- Clearly communicate plan and process to students.
- Monitor student evaluations of new course.
- Once per semester faculty meeting items starting May, 2021.

Timeline: *Course revision Winter and S/S 2021*
New course outline available for students Fall 2021.

Responsibility for
  a) **leading initiative:** *Director & Science Course Lead*
  b) **approving recommendation, providing resources, and overall monitoring:** *Dean FCS*

RECOMMENDATION 12. The Interprofessional (IP) Courses (i.e., MWF305, 315) have content that does not relate to placements and too much of an emphasis on discussion boards. In addition, learners stated that the Problem-Based structure does not work well with online courses. One suggestion is for more structured peer review of cases that students experience in clinical.

Rationale: The course has not been revised since 2009 and is due for evaluation and revision based upon student feedback.

Implementation Actions: e.g.
- Develop concentrations with Curriculum Committee
- Review with faculty
- Implement assessment/approvals process for integration of concentrations into curriculum
- Clearly communicate availability of concentrations and registration process to students.
- Develop any core elective courses required for the concentration, if needed
- Monitor course availability
- Monitor student enrolments in concentrations
- Annual faculty meeting items every Dec and May at the ending of clinical semesters for 3rd year starting May, 2021/

Timeline: Re-evaluate by 1 year report, June 30, 2022.

Responsibility for
  a) leading initiative: Director & Third Year Faculty Lead
  b) approving recommendation, providing resources, and overall monitoring: FCS Dean

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RECOMMENDATION 13. IP courses should be evaluated to ensure the complexity of courses is more organized and benefits learners in a more efficient way without draining RU MEP resources.

Rationale: The course has not been revised since 2009 and is due for evaluation and revision based upon student feedback.

Implementation Actions:
- Develop new definitions for required interprofessional placements
- Review with faculty
- Implement assessment course description changes, sending revisions to Senate by October deadline as necessary.
- Clearly communicate planning and process to students and revise Calendar as necessary.
- During the COVID-19 pandemic, 2019-2020 and 2020-2021 academic years, these curricular changes were initiated without needing Senate approval due to restrictions to placements and hospital access. These will be evaluated for outcomes, student satisfaction etc. by Summer 2021.
- Monthly faculty meeting items starting January 27, 2021.

Timeline: Re-evaluate by 1 year report, June 30, 2022.

Responsibility for
  a) leading initiative: e.g. Program Chair/Director
  b) approving recommendation, providing resources, and overall monitoring: e.g. Faculty Dean, UPO

RECOMMENDATION 14. In the case that a student withdraws or fails a clinical course there is no immediate option for remediation. A student will have to wait until the next iteration of the clinical course, which is typically in a year's time. In the interim, a student, who likely needs more support and not less, will suffer deskilling and lack of access and a means to practice and strengthen skills. One way to combat this issue is to create a floating independent clinical course, which can be offered or canceled based on student need. Such a course would have individualized learning objectives tailored to each student situation and suffice to count for the failed/withdrawn clinical or to retain clinical skill until the next iteration of the course. They would be a requirement in the case that a student failed and CUPE instructors could be hired to act as tutors based on need.
Rationale: There was very little in the way of systematic, documented explanation for withdrawals and attrition in the PPR.
Implementation Actions: e.g.   • The exit interview process continues but is not well documented and not made to be a compulsory step for the director to complete.   • Arrange with Program Manager to notify director whenever a student withdraws or does not return from a leave.   • Exit interview by phone Zoom, Google Meet or in person should be formalized.   • Report on statistics, trends on why students withdraw or predicating circumstances.   • End of semester meetings with Program Manager starting end of January 2021.
Timeline: Re-evaluate by 1 year report, June 30, 2022.

Responsibility for
   a) **leading initiative:** *Director & Program Manager*
   b) **approving recommendation, providing resources, and overall monitoring:** *FCS Dean*

RECOMMENDATION 15. Submit to ASC and Senate for approval of a variation from the specified program balance per Senate Policy 2.
Rationale: The current program balance is necessary due to the accreditation requirements of the Midwifery Education Program. The Academic Standards Committee recommended that the program submit a request for a variation to ensure that the variation is explicitly noted in the Senate Policy.
Implementation Actions: • Prepare a written proposal for a program balance variation.   • Seek internal approvals (School/Faculty level)   • Submit to Academic Standards Committee for review and recommendation to Senate
Timeline: August 31, 2021

Responsibility for
   c) **leading initiative:** *Director & Program Manager*
   d) **approving recommendation, providing resources, and overall monitoring:** *FCS Dean*

Recommendation
Having satisfied itself of the merit of this periodic program review, the Academic Standards Committee recommends: *That Senate approve the Periodic Program Review for the Midwifery Education Program Bachelor of Health Sciences (Midwifery) - Faculty of Community Services.*

B. PERIODIC PROGRAM REVIEW – Biomedical Engineering, Faculty of Engineering and Architectural Science

FINAL ASSESSMENT REPORT (FAR)
In accordance with the Institutional Quality Assurance Process (IQAP)**,** this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the undergraduate

Biomedical Engineering program. The report identifies the significant strengths of the program, together with opportunities for program improvement and enhancement, and it sets out and prioritizes the recommendations that have been selected for implementation.

The Implementation Plan identifies who will be responsible for leading the implementation of the recommendations; who will be responsible for providing any resources entailed by those recommendations; and timelines for acting on and monitoring the implementation of the recommendations.

SUMMARY OF THE PERIODIC PROGRAM REVIEW OF THE BIOMEDICAL ENGINEERING PROGRAM
The Biomedical Engineering (BME) program submitted a self-study report to the Vice-Provost Academic on January 28, 2019. The self-study presented the program description and learning outcomes, an analytical assessment of the program, and program data including the data collected from a student survey along with the standard University Planning data tables. Appended were the course outlines for all core required and elective courses in the program and the CVs for all RFA faculty members in the Department of BME and other faculty who have recently taught core courses (required and/or elective).

One arm's-length external reviewer, Dr. Bob Dony, School of Engineering at the University of Guelph, and one internal reviewer, Dr. Michael Kolios, Department of Physics at Ryerson University, were appointed by the Dean of the Faculty of Engineering and Architectural Science from a set of proposed reviewers. They reviewed the self-study documentation and then conducted a site visit at Ryerson University on May 23 and 24, 2019.

The visit included meetings with the Provost and Vice-President Academic; Vice-Provost Academic; Dean, Faculty of Engineering and Architectural Science; Chair, Electrical, Computer and Biomedical Engineering; and the BME Program Director. The Peer Review Team (PRT) also met with several members of the BME program within the Department of Electrical, Computer and Biomedical Engineering, including staff, students, and faculty members. A general tour of the campus was provided, including a tour of the program facilities, labs, classrooms, and the library.

In their report, dated May 23-34, 2019, the PRT provided feedback that describes how the BME program meets the IQAP evaluation criteria and is consistent with the University's mission and academic priorities. The PRT also noted the pride exhibited by all those involved in the BME program, particularly as the first stand-alone biomedical engineering program in Canada to have received accreditation by the Canadian Engineering Accreditation Board (CEAB).

The main areas of strength identified by the PRT include:
- An innovative program that was the first accredited stand-alone biomedical engineering program in Canada.
- Strong curriculum with a focus in the fields of devices and software, and signals and systems, building on the existing expertise of the ECBE department.
- Excellent student population as the program attracts high achieving students.
- Student population at gender parity, an achievement unique across all engineering programs at Ryerson by a wide margin.
- Excellent calibre of faculty, with a high proportion of female faculty dedicated to the BME program.
- Excellent opportunities for experiential learning through labs, projects, and the Biomedical Zone.

The PRT also identified areas for improvement. The most significant recommendations for enhancing the undergraduate program include an increased effort on student internships specifically focused for biomedical engineering, and a broader BME curriculum to include more in-depth coverage of areas such as biomechanics and tissue engineering.

The Chair of the Electrical, Computer, and Biomedical Engineering program submitted a response to the PRT Report on November 18, 2019. The response to both the PRT Report and the Program's Response was submitted to the Vice-Provost Academic by the Dean of the Faculty of Engineering and Architectural Science on November 5, 2020.

The Academic Standards Committee completed its assessment of the Chemical Engineering Program Review on December 10, 2020. The Committee indicated that a thorough, analytical and self-critical program review was conducted. The School integrated into the developmental plan feedback from students, alumni, employers and peer reviewers, and outlined a comprehensive plan for program enhancements moving forward.

The Academic Standards Committee recommends that the program continue, as well as provide a one-year follow-up report by June 30, 2022, as follows:

   1. Update on the status of the initiatives outlined in the Implementation Plan

Presented to Senate for Approval: January 26, 2021
Start date of next Periodic Program Review: 2023-24

SUMMARY OF THE REVIEWERS' RECOMMENDATIONS WITH THE PROGRAM'S AND DEAN'S RESPONSES

RECOMMENDATION 1. Explore further opportunities within existing courses to integrate the regulatory aspects of the Professionalism Learning Outcome (LO) within the context of the more technical material as this is of particular importance to the biomedical engineering field.
Department's Response: Currently the Professionalism LO (as defined by the corresponding CEAB GA) is being assessed in representative courses in the early, middle, and graduating courses. Five of the higher year courses (i.e. 7th and 8th semester courses) cover this LO and 4 out of these 5 courses are technically specialized courses including EDP. In addressing the specific comment on including regulatory aspects of professionalism in the context of technical material, this is currently covered to certain degree in design intensive courses such as EDP (BME700/800 via Faculty Lab Coordinators) and BME674. In the near future, we will expand this and include relevant regulatory aspects in higher year courses (7th and 8th semester) covering engineering design, safety aspects, therapy, bioethics, and applications to health care.
Dean's Response: In 2017, FEAS developed an overarching philosophy, the All-In Approach to Education, that recognizes how a student's success depends on their academic, personal, community and professional experiences at Ryerson University and beyond. The All-In Approach is a framework that guides our improvements in both the curricular and co-curricular realm.
At present, regulatory aspects of professionalism are covered in design intensive courses such as Engineering Design Projects (EDP) (BME 700/800) and BME 674. In the near future, we will be including the relevant regulatory aspects of engineering design, safety aspects, therapy, bioethics, and applications to health care in upper year courses (7th and 8th semesters). In line with the Faculty's All-In Approach to Education and in compliance with the graduate attributes set out by the Canadian Engineering Accreditation Board, the biomedical engineering program maintains a strong focus on both technical and durable skill development.

RECOMMENDATION 2. While Biology (SBI4U) could be considered as one of the admission requirements given the nature of the program, the students still do very well in this part of the curriculum. Further, this requirement would potentially limit the pool of eligible applicants as it would be the only engineering program with such a requirement. If in the future biomedical engineering students have difficulties with the topic, it could added as an admission requirement.
Department's Response: We appreciate the suggestion of the reviewers. Currently the BME students (without SBI4U) are provided with ample exposure to biology over 3 courses in the curriculum to the extent needed for

a Biomedical Engineering student. Based on the student performance in these courses and their comfort level in integrating and applying this knowledge in the higher year technical courses that demand this background, we do not foresee the lack of SBI4U having any negative impact. It is further noting that the admission averages are amongst the highest in engineering, thus attracting outstanding students.

Dean's Response: The PRT's recommendation to consider including Biology (SBI4U) as an admission requirement has been taken under consideration. It is important to note that current BME students are provided with ample exposure to biology over three courses (BLG 143, BLG 601, and BLG 701) offered in the curriculum. Based on recorded student performance in these courses and students' demonstration of comfort integrating and applying their knowledge in the upper year technical courses, we are not considering changing the admission requirements at this time.

RECOMMENDATION 3. Both students and faculty have expressed interest in having more advanced courses in areas such as biomechanics and tissue engineering. The addition of such courses would alleviate the perception expressed by some that the program has too narrow of a focus in electrical and computer engineering.

Department's Response: Currently the BME UG curriculum does include Biomechanics (BME406) and Tissue Engineering (BME703). BME is highly interdisciplinary with a larger span of specialized areas compared to traditional engineering programs. While it may be desirable to cover this large span as much as possible, considering it is a 4-year program (i.e. unlike 5 year BME programs) and to avoid venturing into too narrow specialization that will defeat the "systems approach" of the current program, it would be more appropriate that we allow the our graduate BME program to cover such advanced versions of courses in these areas.

Dean's Response: The current biomedical engineering program includes Biomechanics (BME 406) and Tissue Engineering (BME 703). Furthermore, BME 674 covers instrumentation for medical devices and the department has plans to develop new courses on devices and the regulatory aspects related to medical device development. Biomedical engineering is a 4-year program and highly interdisciplinary. Given these differentiating factors, the program has avoided narrow specializations in the undergraduate program in favor of achieving a systems approach that better prepares prospective graduate students to choose advanced courses that support their own decisions to specialize in the areas of their choice.

RECOMMENDATION 4. The faculty did express concern that the current departmental structure may not be conducive to hiring additional faculty with expertise in biomechanics or tissue engineering.

Department's Response: One of the BME strategic hires is a well-known tissue engineering expert while we leverage the expertise available in the Mechanical Engineering for Biomechanics. All BME hires in the recent past had BME representation in the hiring committee and ALL BME faculty members were consulted during each of the BME hiring. In fact, right from deciding on the expertise requirements and position description until the hiring is complete, ALL BME faculty members have been closely consulted.

Dean's Response: n/a

RECOMMENDATION 5. The department initially created the BME program with minimal additional resource requirements, drawing on the existing expertise and infrastructure within the department. While additional resources have been added with faculty hires and new laboratory equipment, the growth in the program is placing strains on the current abilities of the department to deliver the program. Although the department continues to deliver an excellent program that attracts top students, the reviewers feel that the current situation is not sustainable. With a minimal faculty complement, the program is vulnerable to both scheduled and unscheduled faculty member leaves. Because of the number of recent hires, the faculty is relatively young. As a result, the program has not yet had to deal with the full regular cycle of sabbatical leaves. This is a concern. As well, the younger faculty profile most likely means a higher than average number of parental leaves in the near future. Again, with an already minimal faculty complement, such leaves could significantly affect the department's ability to deliver the program.

Department's Response: The program is in its 11th year, we currently have more BME specific faculty members than we originally started. Hence, in relative terms we are in much better situation in terms of number of faculty members (with another new addition next year). We expect the situation to only continue to improve with accumulation of experience by faculty members. While we do need new additional faculty members specific to BME for stability and expansion, being housed in the largest departments of the University, and having run this program for 11 years with lesser resources than the current situation, we do not foresee that we will be unable to deliver the program.

Dean's Response: We have been extremely impressed with the caliber of talent that the biomedical engineering program has attracted. Over the last three academic years, the number of faculty members in the biomedical engineering program has a net increase of three. Already the three new hires have been committed to specialized courses and/or developing new specialized courses. Our dedicated biomedical engineering faculty members represent a diversity of research interests and expertise. Their dedicated teaching, research and service are further enhanced by the fact that FEAS is home to over 25 interdisciplinary faculty members who conduct research in the expansive field of biomedical engineering.

RECOMMENDATION 6. One of the features of an accredited engineering program is the culmination with a capstone engineering design project (EDP) course. Such a course requires a significant amount of supervision by the faculty advisor assigned for each design group. With a low faculty complement, some faculty end up taking on a large number of EDP groups. The students mentioned a case where a single faculty member had been advising 8 student groups. Others mentioned they could not find suitable projects. The quality of advising can only suffer in such instances. The low number of faculty also means that the graduate student pool from which to draw teaching assistants for undergraduate courses is limited. Again, given the specialized nature of many courses in the program, it can be a challenge finding qualified people from this limited pool.

The capstone EDP experience could be enhanced in several ways. With an increased faculty contingent, the quality of advising would be improved as the number of groups per faculty would decrease. Further, there is an opportunity for improving the integration with hospital-based projects through iBEST. While the structure currently exists, closer collaboration with the engineering faculty and hospital physicians would significantly enhance the opportunities for student projects.

Department's Response: Specific to EDP groups, in BME, each EDP group consist of a maximum of 3 students (i.e. unlike typical 6 or 7 students in other programs). So 8 groups consist of a total of 24 students, which is a fairly small and optimal group of students (amounting to approx. a typical "section" at Ryerson) for a faculty member to supervise. At dept. of ECBE, we follow the principle of assigning designated faculty members (with a P.Eng. license) with significant experience and expertise to EDP to deliver quality learning experience for students. Unlike, allowing every faculty member to supervise 1 or 2 groups, our approach is geared towards highly trained and experienced faculty members to handle EDP. With decades of positive acknowledgements and appreciations received for the way the dept. of ECBE runs the EDP course, we believe our approach of using fewer trained and experienced faculty members to supervise more groups is effective in delivering quality learning experience.

Regarding the unavailability of suitable topics, of course this is a common complaint, however, considering the vastness of BME discipline it would be unrealistic to cover all the areas. Most importantly, our philosophy is not to put the focus on what the project is, but to emphasize and train the students in design process and project management irrespective of the topic. The topic is only a vehicle to make the student journey through the design process and project management.

Regarding low number of faculty members, we are in the process of expanding with 3 new hires in the recent past specifically for BME with one more addition next year. Already the 3 new hires have been committed to specialized courses and/or developing new specialized courses. We do need additional new faculty members for stability and expansion of the curriculum.

Regarding hospital collaboration for EDP, this is currently being done through both iBEST initiated Clinician participation and through individual EDP faculty member's hospital research collaborations.

Dean's Response: The PRT made mention of a low number of faculty members dedicated to the Engineering Design Projects (EDP)/Capstone Projects. The EDPs are carried out in groups consisting of a maximum of three students. A faculty member supervises eight groups consisting of a total of 24 students, which amounts to approximately a typical "laboratory section" at Ryerson. ECBE adheres to a principle of assigning designated faculty members with a P.Eng. license with significant experience and expertise in engineering design projects to deliver quality learning experiences for students. ECBE's approach is geared towards highly trained and experienced faculty members to handle EDP. Thus far, the Department has received positive acknowledgements from students and faculty alike and is confident with its decision to focus on fewer highly trained faculty members to effectively deliver a focused quality learning experience.

The Department acknowledges that there will always be a student demand for more topics than are provided. This is a common complaint. The Department's philosophy involves using an EDP topic as the vehicle to support students learning journeys through the design process and project management. ECBE emphasizes training students in the design process and project management skills irrespective of specific topics and as such are confident in the learning outcomes of their approach. With the addition of new faculty member in the biomedical engineering program, it is expected that more topics would be available for biomedical engineering students.

RECOMMENDATION 7. The BME program, like other engineering programs at Ryerson, has an internship option for students. A single staff member supports the three programs within the department. Not only is this a concern for the additional workload of the BME program, but the nature of the positions makes this a bigger concern. As a University and Faculty the prides itself on providing the best experiential learning opportunities, we consider the lack of dedicated resources to finding internship opportunities in what the City of Toronto has designated as the "Discovery District", home to seven world-renowned hospitals and more than thirty specialized medical and related sciences centres, a missed opportunity.

Department's Response: We agree with the reviewers; we definitely need additional staff members (as also noted by CEAB visitors) for BME and resources to improve our outreach in obtaining internship opportunities for students.

Dean's Response: In late 2017, FEAS launched a central office to manage optional co-operative internship programs (CIP) for all of the engineering programs except Chemical Engineering which has a mandatory co-operative program. Since this time, the team has grown from 1 staff member to 5. This team collaborates with existing embedded staff within departments (including ECBE) to support all aspects of CIP including new on-line platforms (Salesforce and Orbis) for efficient student and employer engagement related to applications, job postings, etc; student and employer recruitment events and workshops; administration and evaluation of the placement experiences; and delivery of soft skill development modules associated with career readiness and professional networking. In Fall 2019, the FEAS CIP office rolled out the first centralized student enrolment in FEAS CIP.

The FEAS CIP office is continuing to work on improving the co-op placement rate of BME and other engineering students through the following activities: 1) identifying and working closely with students who are less engaged (i.e. do not apply to posted jobs, apply but do not secure interviews and/or job offers), 2) continuing to work with existing employers and promote jobs that are more relevant to specific engineering disciplines, 3) developing more partnerships with new employers/industries interested in specific engineering disciplines, aiming towards a 3 job postings to 1 student ratio, and 4) planning employer engagement events/opportunities that target specific engineering discipline students. We are reaching first and second year students to promote CIP earlier so that they are better prepared to meet the expectations set by the program and employers.

RECOMMENDATION 8: Both students and faculty have identified a lack of identity of the program within the department. While the recent name change does acknowledge the new BME program within the

department, there is still the feeling that the other two programs are the primary focus of the department. This sentiment was particularly strong from the students we interviewed.

Department's Response: We agree with the reviewers; however, we have already started moving in the right direction with the name change. In addition, with the recent new hires specific for BME and plans for increasing BME student interactive events is expected to change the sentiment over time. (Example interactions will include, town hall style meetings, pizza lunch with faculty members, hospital visits, iBEST activities etc.]

Dean's Response: Ryerson University Senate unanimously approved the name change of the Department in May 2018, at which point the Department of Electrical and Computer Engineering changed its name, all branding and marketing materials to the Department of Electrical, Computer and Biomedical Engineering. Since that time, there has been a focused and intentional effort to ensure biomedical engineering students feel welcomed and engaged within their department and the wider faculty.

In line with our All-In Approach to Education, we are working diligently to significantly improve the student experience through five co-curricular hubs—Well-being, Academic Success, Leadership, Career Development and Experiential Learning. We provide a multitude of resources and opportunities within these hubs to help students grow into imaginative and exceptional leaders. For example, in light of the COVID-19 pandemic, FEAS launched a new Peer Networking Program that involves 47 paid student staff positions to serve in various peer advisor capacities to support all FEAS students by answering their questions, providing support and facilitating skill building workshops. BME students constitute the largest ratio of these paid student positions.

The student experience and available co-curricular opportunities are one of the program's greatest strengths. For example, BME students have access to join over 15 student design teams, student government opportunities through Ryerson Engineering Student Society (RESS), as well as countless student groups like the Biomedical Engineering Society (BMES), IEEE Engineering in Medicine & Biology Society - Ryerson Chapter, Engineers Without Borders (EWB), EngOUT, Institute of Healthcare Improvement, and National Society of Black Engineers (NSBE). BME students are also heavily engaged in Ryerson's Zone Learning ecosystem and have been some of the most successful recipients of the Esch Engineering Innovation and Entrepreneurship Awards. While FEAS believes strongly in the benefits of a more centralized suite of offerings for students to ensure greater interdisciplinarity and to increase peer networking across programs, the Department of ECBE also offers biomedical engineering student specific events in the form of orientations, pizza parties, co-operative internship recruitment events and special lectures and workshops from the biomedical engineering industry. These examples will continue to increase and improve in quality as they coincide with a commitment to increase alumni and employer engagement in ways that improve the student experience.

RECOMMENDATION 9: Given the extra complexity of the regulatory requirements within the biomedical engineering field, there appears to be a lack of integration of regulatory issues within the technical subjects within the curriculum.

Department's Response: In addressing the specific comment on including regulatory aspects of professionalism in the context of technical material, this is currently covered to certain degree in design intensive courses such as EDP (BME700/800 via Faculty Lab Coordinators) and BME674. In the near future, we will expand this and include relevant regulatory aspects in higher year courses (7th and 8th semester) covering engineering design, safety aspects, therapy, bioethics, and applications to health care.

Dean's Response: n/a

RECOMMENDATION 10: While there is an advisory committee at the department level, a specific advisory committee for the program that includes representation from the surrounding hospitals and BME related companies would provide a more focused forum on program issues.

Department's Response: The BME program does have an advisory committee including representation from hospital and external members.

Dean's Response: n/a

ADDITIONAL PROGRAM RECOMMENDATIONS IN SELF STUDY
1. Increase the number of 4th year professional electives available to students.
2. Improve TA support to undergraduate courses with overall increased stringency on the requirements for selection and also with adequate training and preparation.
3. Integrate opportunities for students to improve and build on soft skills (e.g., leadership, oral presentation, professionalism)
4. Increase the number of co-op internship jobs available to students in BME

IMPLEMENTATION PLAN

Priority Recommendation #1: *Increase the number of 4th year professional electives available to students*
Rationale: *There is an urgent need to introduce more technical electives in the 7th and 8th semester to give students more choice. Elective courses in specialized areas of bio-robotics, advanced medical instrumentation, etc. would be valuable additions.*
Implementation Actions: *Identify advanced topics that are lacking in the curriculum;*   *Design courses around the advanced topics identified above*   **Timeline: (***2018/19: identify topics that can be introduced through new 4th year professional electives* *2018-2020: design and integrate into curriculum 4 courses over 2 years*
Responsibility for **a) leading initiative:** *Department Chair, Program Director, Curriculum Committee, Stream* **b) approving recommendation, providing resources, and overall monitoring:** *Curriculum Committee, Stream*

Priority Recommendation #2: *Improve TA support to undergraduate courses with overall increased stringency on the requirements for selection and also with adequate training and preparation*
Rationale: *Notwithstanding our efforts to select appropriate graduate students as teaching assistants in our labs, our recent surveys have indicated that there are courses where the TAs are not well prepared to assist students.*
Implementation Actions: *identify key courses that have a large number of TAs;*   *increase preparation/training hours for TAs in those courses;*   *require TAs to perform and complete all labs that undergraduate students will be doing;*   *introduce and hire Lab Leads to roam labs and provide extra support and supervision.*
Timeline: 2020-21 academic year
Responsibility for **a) leading initiative:** *Department Chair* **b) approving recommendation, providing resources, and overall monitoring:** *Department Chair, Dean*

Priority Recommendation #3: *Integrate opportunities for students to improve and build on soft skills (e.g., leadership, oral presentation, professionalism)*
Rationale: *Our student survey identified skill areas that are not well addressed. Soft skills are not formally part of the engineering curriculum but they are essential skills for a professional engineering in industry.*
Implementation Actions: *identify key core courses where students can present orally*   *provide leadership opportunities to senior graduate students by creating a program that will allow them to mentor students in early years*   *work with career centre to have them visit classes and hold seminars to relay to students the aspects of professionalism that are essential and to help them cultivate them*

Timeline: 2020-21 academic year
Responsibility for **a) leading initiative:** *Department Chair, Program Director, Stream* **b) approving recommendation, providing resources, and overall monitoring:** *Department Chair, Dean*

Priority Recommendation #4: *Increase the number of co-op internship jobs available to students in BME*
Rationale: *Our internship program is proving to be very popular. In 2018/19 we will be having 80 students on internship, which is a record. Unfortunately, only 4 of these positions were in Biomedical Engineering.*
Implementation Actions: • *Identify potential employers in GTA and Southern Ontario* • *Create 1-page prospectus/flyer that provides quick info on our co-op internship and benefits to the employer* • *Plan site-visits with potential employers to discuss their participation*
Timeline: 2020-25 academic year
Responsibility for **a) leading initiative:** *Department Chair, FEAS* **b) approving recommendation, providing resources, and overall monitoring:** *Department Chair, Dean*

Recommendation

Having satisfied itself of the merit of this periodic program review, the Academic Standards Committee recommends: *That Senate approve the Periodic Program Review for the Biomedical Engineering Program, Bachelor of Engineering (Biomedical Engineering) - Faculty of Engineering and Architectural Science.*

For information: 1-year follow-up report for Periodic Program Review: Nursing; 2-year follow-up report for Periodic Program Review: Graphic Communications Management.

i. **NURSING One-Year PPR Follow-up Report**

This follow-up report addresses the recommendations stated in the Academic Standards Committee's assessment of the Periodic Program Review of the Bachelor of Science in Nursing (BScN) degree program, approved by Senate in March 2019.

1. A report on the status of the initiatives outlined in the Developmental Plan.

Recommendation/Priority #1: Curriculum Redevelopment
Objective: To build a comprehensive, socially accountable and innovative curriculum that actively involves students, faculty, external partners, and community members to promote health equity and social justice. The objectives are: • Integrate social responsiveness and social innovation as core threads throughout all programs • Facilitate socially innovative practice placements for students • Enhance curriculum with respect to emerging issues and learning opportunities (i.e., NCLEX, simulation, Indigenous health) in order to prepare nurses to practice in 2020 and beyond • Conduct and enhance continuous program evaluation for both undergraduate programs, with shared- and program-specific metrics

Actions:
Collaborate with internal and external partners to design new courses and policies
    • Working groups consisting of multi-site and multi-program faculty and staff continue their work
    • Professional development sessions are held as required
    • Establish relationship with Aboriginal Education Council
Collect and analyze data

- Identify NCLEX competency gaps with HESI aggregate data; share this information with educational partners in support of robust relationships
- Employ data analyst (See priority 5)

Increase integration of simulation and Indigenous health, improve writing skills development and build social innovation into the curriculum (See priorities 1.a, b, c, and d)

These four areas are priorities in their own right, but also closely interrelated to the curriculum redevelopment project – implementing these actions will be an iterative process over years

Timeline: Aiming for September 2020 implementation of new curriculum

Responsibility for leading initiative: Director, DCSN; Associate Directors for Collaborative and PDDP programs; Curriculum Redevelopment Steering Committee

Responsibly for approving recommendation, providing any resources made necessary by the recommendation, and overall monitoring of the implementation of the recommendation: Faculty Dean, University Planning Office

Status for 1-year Follow-up Report:
Within the Collaborative Program, the academic team from all three sites successfully worked together to develop the content for the 1st year courses of the redeveloped curriculum that was approved by Senate on November 15, 2019. Delivery of the redeveloped curriculum was initiated in the F2020 term.
Within the PDDP, the academic team is reviewing the redeveloped curriculum and is planning to submit the proposal to Standards and Senate in the Spring 2021.
The Collaborative teaching team partnered with Dr. Lynn Lavallee, Strategic Lead of Indigenous Resurgence at the FCS. Both the Collaborative Program and the PDDP met with Dr. Lavallee in December 2020 to discuss the indigenization of content into both curriculums. We agreed to continue the discussion to explore plans that will facilitate the effective integration of indigenous issues throughout both curriculums.
The Collaborative Program has been integrating the HESI resource into their course delivery in order to identify students' NCLEX competency gaps and to help to prepare them to prepare for the NCLEX licensure exam.
In the W2021, the PDDP program will introduce the Nurse Achieve resource with the PDDP students instead of the HESI to help them be better prepared for the NCLEX licensure exam.

Recommendation/Priority #1a: Integrate simulation into program curricula

Objective: Full integration of simulation across the Collaborative and PDDP curriculum

Actions:
- Develop a plan to balance the use of the lab between the two programs.
- Build faculty expertise in simulation. This may include providing training opportunities and simulation professional development days, and participating in simulation workshops/conferences. Currently, there is a Collaborative Simulation Committee. Renewing the role of this committee will be a priority to support simulation integration.
- Support research within the school to develop virtual gaming simulation as an evidence-informed alternative for real-life clinical experiences. For example, maternal and infant health assessment is a high demand content area, for which strategies for curriculum development is continually sought. We are currently supporting research by members of the Collaborative program to develop and integrated virtual gaming for this content into our two undergraduate nursing programs.
- Develop a simulation course(s) specific to individual RPN and IEN competency requirements.

Timeline: Short term, Fall 2019

Responsibility for leading initiative: Director, DCSN; Associate Directors, Collaborative and PDDP programs

Responsibly for approving recommendation, providing any resources made necessary by the recommendation, and overall monitoring of the implementation of the recommendation: Faculty Dean

Status for 1-year Follow-up Report:
Since the inauguration of the new labs in the Daphne Cockwell Building, it was determined that there was a high demand for the labs' usage by both programs. In response, the PDDP in coordination with the Collaborative

Program scheduled their labs to ensure that scheduling conflicts are avoided. In response to the demand for lab space, we have a plan to secure a room that will be a designated as a PDDP assessment room with examining tables. This plan reflects the differences in course requirements between the PDDP and Collaborative programs. Our plans for a designated assessment room is anticipated to decrease the demand on our existing full bed unit labs and will free them for a much-needed clinical simulation use in the Collaborative Program. These plans are however currently on hold due to the COVID situation.

Faculty members had the opportunity to participate in "Creating Virtual Gaming Simulations"; an online workshop that was held on May 12-13, 2020.

The Collaborative Simulation Committee meets regularly to support the use of simulation in the Collaborative Program. In-person simulations are included in courses across all four years of the program, but have been on hold or modified for 2020-21 due to the pandemic related limitations. Over the past seven years, the Collaborative Program faculty have created several virtual gaming simulations (VGS) - many of which have been integrated into nursing courses. A VGS was created specifically for NSE101 Communication for the Nursing Professional, a revised curriculum course which was offered for the first time in the Fall 2020 semester. The value of VGS for nursing education has increased with the remote learning model required in response to the pandemic. The DCSN has received a generous philanthropic donation that was specifically directed towards the purchase and development of both in-person and virtual simulations. This generous gift enabled us to buy three high-fidelity manikins and develop several VGS. Applications submitted in response to our "Call for Proposals" for simulations development are currently under review.

The integration of the VSim (a virtual simulation product) into the PDDP and Collaborative Program, has provided students with the opportunity to work through case studies in a variety of nursing practice settings and to further develop their critical thinking and clinical planning skills with patients.

This initiative is ongoing as the needs of both programs and demands for virtual and in-person simulation evolves.

Recommendation/Priority #1b: Respond to the Truth and Reconciliation Calls to Action
Objective: Incorporate Indigenous health content throughout the curriculum.
Actions: • Identify existing Indigenous curricular content within course teams • Hire a tenure-stream professor with a research background in Indigenous health • Partner with Aboriginal Initiatives to development curriculum content
Timeline: Short term (1-2 years**)**
Responsibility for leading initiative: Director, DCSN; Associate Directors, Collaborative and PDDP programs
Responsibly for approving recommendation, providing any resources made necessary by the recommendation, and overall monitoring of the implementation of the recommendation: Faculty Dean
Status for 1-year Follow-up Report: In F2020 term, The Collaborative Program hosted an Indigenous speakers' panel over two nights with four speakers as part of the NSE 101 course titled "Communication for the Nursing Professional". This session was important considering the recommendations of the Truth and Reconciliation Report, and the Canadian Association of Schools of Nursing (CASN) and College of Nurses of Ontario (CNO)-competencies about Indigenous content in undergraduate nursing programs. Our teaching team partnered with Dr. Lynn Lavallee, Head of Indigenous Resurgence within Faculty of Community Services (FCS) for the planning and delivery of these panels. The guiding questions of the panels were: What knowledge is important for nursing students to have about Indigenous people? What should nursing students consider in order to promote a culturally-safe communication encounter between the nurse and the Indigenous client? What should nursing students be aware of when performing a health history interview of an Indigenous client? The panel was hosted via Zoom webinar with over 600 students. The speakers included:

(1) Kim Wheatley is an Anishinaabe Grandmother from Shawanaga First Nation. She is turtle clan and deeply committed to promoting awareness of the Indigenous perspective utilizing her gifts of song, storytelling and Traditional teachings.
(2) Jane Harrison, a member of Anishnawbe Health Toronto and formerly employed by Native Child and Family Services of Toronto to develop and implement the high-risk infant program. Jane has participated on various levels of governance as an advisor to inform healthy policy development.
(3) James Carpenter is a recognized Traditional Healer with Ojibwa, Cree and Chippewa ancestry. James works as an Oshkabewis (helper) at Anishnawbe Health Toronto in the Traditional Healing Services Program. He has gained the respect and knowledge of various healers and uses his gifts with the purpose of helping our communities heal.
(4) Justice Seidel, who is from Moose Cree First Nation, who has a Bachelor of Science and a Masters of Indigenous Relations from Laurentian University. Her research explored patients' experiences from Moose Factory and Moosonee area who traveled to larger urban cities for medical appointments. Her work illuminates challenges faced by Indigenous people seeking health care and offers critical recommendations that are important considerations for health care providers.
In response to the success of the Indigenous speakers' panel, we have decided to offer this panel again in F2021 and we will open it to all students both in the Collaborative program and PDDP.
The indigenous initiative is ongoing for the PDDP curriculum, as it moves forward with the redeveloping the courses. We have plans to hire an indigenous consultant who will assist with the review of course content and will provide recommendations for the indigenization of courses in the program.
The hiring of a tenure-stream professor with a research background in Indigenous health continues to be a priority. Our current job postings for tenure track positions put a special emphasis on and gives preference for applicants of Indigenous background and expertise.

Recommendation/Priority #1c: Writing Skills

Objective: Improve students' critical reading and writing skills to foster their learning and academic engagement

Actions:
- Explore the inclusion of a critical writing/professional communication course into the new curriculum.
- Facilitate faculty professional development in online delivery for IENs with English language barriers, and who require an enhanced understanding of the Canadian context of care.
- Invest in writing initiatives outside of the classroom for students in both programs such, as writings workshops. These workshops may be planned and facilitated by faculty members who are currently engaged in unstructured writing mentorship with students, and who have produced publications, conference presentations and research studies, specific to critical writing development. Evidence from these writing mentorship relationships will be used to guide future writing initiatives.

Timeline: Immediate, in place

Responsibility for leading initiative: Director, DCSN; Associate Directors, Collaborative and PDDP programs

Responsibly for approving recommendation, providing any resources made necessary by the recommendation, and overall monitoring of the implementation of the recommendation: Faculty Dean

Status for 1-year Follow-up Report:
The redeveloped Collaborative Program curriculum includes the new course (NSE 101) titled "Communication for the Nursing Professional", which addresses professional communication and scholarly writing. The Open Education Resource titled "The Scholarship of Writing in Nursing Education" was developed for this course and has been made available for inclusion in other courses as well. The FCS's "Writing Skills Initiative" continues to be offered to students in the Collaborative Nursing Program and it is providing students with beneficial 1:1 writing support.

During 2019-2020, the PDDP had an in-house writing support person who provided writing support sessions for students. Student feedback on the initiative indicated that it was helpful and supportive of the development of their writing skills.

In the Winter 2021, students in the PDDP will benefit from student engagement funds that will support the delivery of in-house writing support through workshops and 1:1 sessions.

Recommendation/Priority #1d: Building Social Innovation into the Curriculum

Objective: Use flexible and innovative delivery options for a socially responsive, innovative curriculum

Actions:
- Create a shared definition of curriculum innovation and determine how to integrate innovative concepts across our curriculum and be attentive to emerging opportunities and technologies.
  - In the spring of 2017, we will conduct a forum with faculty and FCS' John C. Eaton Chair in Social Innovation and Entrepreneurship.
- Explore preceptor development strategy to enhance the incorporation of social responsiveness and innovation into clinical practice.
- Explore innovative technologies with the Chang School to advance online learning and socialization of RPNs and IENs to BScN role.

Timeline: Longer term, within 3 years

Responsibility for leading initiative: Director, DCSN; Associate Directors, Collaborative and PDDP programs

Responsibly for approving recommendation, providing any resources made necessary by the recommendation, and overall monitoring of the implementation of the recommendation: Faculty Dean

Status for 1-year Follow-up Report:

The Collaborative Program faculty have created several virtual gaming simulations (VGS) over the past seven years, many of which have been integrated into nursing courses. A VGS was created specifically for the "Communication for the Nursing Professional" course - NSE101, a revised curriculum course which was offered for the first time during the Fall 2020 semester

In response to COVID19, both undergraduate programs have integrated online simulation products into the curriculum to support students' learning, and in response to COVID19 negative impact on available clinical placements (i.e., compensate for lost placement hours for the clinical practice courses due to the social distancing requirements).

The PDDP continues to work closely with the Chang School to advance online learning. In response to COVID 19 all PDDP courses were moved to 100% online including the weekly heath assessment labs that were filmed pre-lockdown.

In response to COVID19, and a result of remote teaching, Collaborative Program faculty have worked together to develop creative approaches to deliver the program's content including film clips, modular learning, case studies in breakout rooms, and flipped classes.

Our redeveloped curricula for both programs provide special emphasis on socially innovative care that prepares our students to especially values social justice, equity, and inclusion.

Our work on social innovation is ongoing as we continuously explore new ways to deliver online content and consider social and healthcare evolutions.

Recommendation/Priority #2: Increase SRC Output

Objective: The DCSN goal for SRC is to be a national leader in innovative research that promotes health and well-being for individuals, families and communities.

Actions:
- Create a shared vision for SRC across faculty.
  - Plan and implement visionary research day to promote dialogue about a shared vision for SRC across DCSN faculty
- Support individual programs of research through SRC infrastructure.

- o Facilitated by the office of Associate Director, SRC, develop a long-term plan to create sustainable human and material infrastructure that supports day-to-day SRC work and influences the direction of individual programs of research. This plan may include allocating departmental administrative support for literature search, grant editing, budget development, and creating linkages to community research networks. This may also include strategies to renew the influence and contribution of our school's SRC committee.
- Build internal and external partnerships to further socially innovative initiatives
  - o Support and facilitate collaborations to increase prospects for interdisciplinary grants and research studies, and provide experiential SRC opportunities for students in international universities and/or internship programs. Building partnerships and relationships inside and outside Ryerson that lead us to socially innovative initiatives is well aligned with the university' academic plan.
- Strengthen the culture of discovery among faculty and students
  - o Currently, SRC achievements of our faculty and students are communicated/shared through a monthly SRC newsletter and FCS magazine. We feel it is important to comprehensively promote the SRC work of our faculty, students and collaborators, using innovative and broadly accessible means. The school will explore the development of a DCSN Online Journal that features the creative and scholarly work of faculty, students, and products of intellectual mentorships between faculty and students. This is an opportunity to expose our expertise to attract collaborators nationally and internationally

Timeline: Short term

Responsibility for leading initiative: Director, DCSN; Associate Directors, Collaborative and PDDP programs; Associate Director, Scholarly Research and Creative Activities, DCSN.

Responsibly for approving recommendation, providing any resources made necessary by the recommendation, and overall monitoring of the implementation of the recommendation: Faculty Dean

Status for 1-year Follow-up Report:
Despite the COVID19 pandemic, our faculty continued to make significant SRC contributions in terms of external and internal grant funding (including CIHR and SSHRC), relevant research that advances and informs socially responsive care (e.g., immigrant health, People living with HIV, COVID19, etc.), publications and presentations, and serving at national and provincial panels and committees. Several of our faculty were awarded national awards and fellowships in recognition of their SRC contributions.
In the Winter semester 2021, the DCSN will welcome the inaugural class of our PhD program in Urban Health. This interdisciplinary program will create new SRC opportunities for students and faculty that we expect will have a significant impact on quality and quantity of our SRC contributions
The DCSN has launched a review of the role of the AD-SRC. We are currently in the process of appointing a new AD-SRC who will be in charge of supporting SRC activities at the school and creating new opportunities for faculty and students
In 2020, Dr. Josephine Wong was appointed as a Chair in Urban Health at the FCS. In this role, Dr. Wong is able to provide invaluable support to junior faculty and students pursuing research in this field.
During the 2019-2020 academic year, an MN Student Research Day was held during the Winter and Fall semesters to allow students with the opportunity to showcase their research projects that they completed as part of their MN program. All faculty, instructors, staff and students were invited to attend.
During the 2019-2020 academic year, the SRC AD secured a total of 15 MITACS Globalink Research Awards which resulted in: 1 student attending the University of Western Sydney (Australia) to work with researchers, and 14 students travelling to Brazil to work with researchers in nine Federal Universities.
During the 2019-2020 academic year, the SRC AD secured a total of 15 MITACS Globalink Research Awards resulted in: 1 student being able to go to University of Western Sydney (Australia) to work with researchers, and a total of 14 students being able to go to Brazil to work with researchers in 9 Federal Universities.
Dr. Guruge and Dr. Zanchetta received a MITACS Globalink Research Award to support the research stay of a postdoctoral fellow from University of Turin (Italy).

During February and October of 2020, a team of 14 faculty within the DCSN delivered a Research Assistant Volunteering Training Program that was attended by 41 students.

In 2019 the SRC AD offered five Knowledge Transfer workshops, a total of 119 students attended (Mostly undergraduate students) and the SRC AD collaborated with the MN Program Director to offer a series of 5 workshops about medical cannabis that was open to faculty, students and the general public. These workshops were attended by a total of 165 people.

During the 2019-2020 academic year, three MOU were signed with Universities in Brazil and one with UWS-Australia, one MOU was signed with the University of Turin (Italy).

During the 2019-2020 academic year there were a total of four visiting professors and one visiting PhD student from international Universities.

Currently there are four remote visiting professors from international Universities and Dr. Zanchetta was selected for a Visiting Professorship at University of Turin.

Recommendation/Priority #3: Student engagement and experience

Objective: Develop students as "full people" who have a sense of purpose about nursing, see education and learning as part of their ongoing practice, and who feel empowered to take actions.

Actions:
- Increase the support and infrastructure necessary to develop nursing champions who can think critically, broadly, creatively and make respectful connections with others in the classroom and in practice.
    - Provide ongoing development on socially responsive and innovative teaching; assess creative teaching methodologies across the programs; and create a reservoir of diverse approaches to student engagement to be shared with both part-time and full-time faculties, and to inform the curriculum design. This process will be important to help us define and integrate higher level critical skills across the new curriculum – e.g. critical thinking, problem solving, collaboration, and advocacy.
- Engage students in co-creating the learning environments they want, in classrooms and across the school.
    - Students from all years will be invited to a critical dialogue forum focused on defining their learning. Students will be asked for their input on the most engaging ways to spend their time in the classroom. This discussion will help to inform teaching methodologies across the program.
- Increase the integration of dynamic teaching elements and assignments into curriculum redevelopment.
- Support faculty-student intellectual mentorship for engagement, research and innovation.
    - Explore and formalize opportunities for pairing lower and higher level students for student mentorship and support. This could involve upper years' students supporting orientation activities, being classroom guest speakers, and providing tutoring opportunities. The school will also initiate a student mentorship focus for part-time and internationally educated nurses that is unique to their learning needs, as these student cohorts have typically been marginalized by generic approaches, designed for domestic full-time students.
    - Explore and formalize an approach that enables greater SRC collaboration and shared learning between faculty and students. This would involve intellectual mentorship outside of the classroom – e.g. co-publishing or doing research with students, providing opportunities to support students to pursue scholarly work/going to conferences. A more formalized process will help shape a learning environment that enables deeper practice/learning links. Discussions and decisions relating to defining this process will be conducted with representatives of Nursing Student Union (NSU) and the Canadian Nursing Student Association (CNSA).
- Continue engaging students via Town Hall meetings, curriculum development, school council meetings

Timeline: Short term

Responsibility for leading initiative: Director, DCSN; Associate Directors, Collaborative and PDDP programs

Responsibly for approving recommendation, providing any resources made necessary by the recommendation, and overall monitoring of the implementation of the recommendation: Faculty Dean

Status for 1-year Follow-up Report:
Guest speakers have been invited for annual professional development days to provide further knowledge and understanding of strategies for teaching and course development.

As the Collaborative Program's redevelopment process continues, instructors and faculty members from all three sites meet regularly to discuss course development and ongoing teaching strategies with current and revised courses. Within the PDDP, during the F2020 term, faculty members met twice a week to develop courses outlines for the redeveloped curriculum. During these meetings new and innovative teaching strategies have been discussed and are being planned with the delivery of the revised curriculum. Central to these processes is the creation of opportunities to maximize student engagement.

During the F2021 term, in response to COVID19 all courses moved to remote teaching, both programs held multiple town halls for all students in all years to gain an understanding of what was working/positive with the remote deliveries, identify issues and to engage students in solutions/plans for the effective delivery courses. Prior to COVID19, within the Collaborative program, student-led workshops were held in certain courses that are identified as being particularly challenging to support students' success in these courses. Students plan to offer these workshops online during 2020-21. As well, 3rd & 4th year students had the opportunity to work as assistants with 1st year students during skills labs. This mentorship program initiative is on pause due to COVID19-related lab restrictions.

During the 2019-2020 academic year, students from both undergraduate programs had the opportunity to engage in SRC activities with faculty members including volunteering on research teams and attending conferences. Within the PDDP, students are regularly placed with faculty that are conducting research as part of their clinical placements; a practice that opens opportunities for them to engage in research activities.

In 2020, we have secured $19,000 in funding from the Faculty of Community Services (FCS) to support a wide range of student engagement activities such as student writing workshops, panel discussions, student-student mentoring program, SRC engagement, etc.

Recommendation/Priority #4: Relational Development
Objective: Build strong and respectful relationships among faculty and staff at all levels.
Actions:
• Address silos between RFA, CUPE Instructors and Administrative staff • Support opportunities that encourage dialogue and interactions between faculty members e.g., retreats, lunches, birthday celebrations • Encourage research collaborations between RFA and CUPE Instructors • Support joint student and faculty recognition award ceremonies
Timeline: Short term
Responsibility for leading initiative: Director, DCSN; Associate Directors, Collaborative and PDDP programs
Responsibly for approving recommendation, providing any resources made necessary by the recommendation, and overall monitoring of the implementation of the recommendation: Faculty Dean
Status for 1-year Follow-up Report: In F2020, the leadership team held two Community Halls (town halls) that provided all staff, faculty and instructors (CUPE I and CUPE II), the opportunity to come together to discuss concerns and issues in response to COVID. As well, each month, the PDDP have full faculty meetings that include RFA, CUPE and staff. This event services as an opportunity for everyone to feel included, provide updates, share experiences and raise issues and concerns that they may have. In F2020, within the DCSN there were several zoom breakfast meetings for all staff, faculty and instructors and in December there was a zoom holiday gathering/celebration for all staff, faculty and instructors. Prior to COVID19 these meetings were held in-person. Professional Development Days are held each year in February and are open to all staff, faculty and instructors.

Throughout the last two years, there have been simulation developments that have included both faculty, and instructors. This has also resulted in joint publications by the developers.

In the Fall, our director presented a new initiative of having awards for faculty and instructors, to acknowledge contributions and achievements within the DCSN. This initiative is ongoing.

In 2020, the DCSN established a new committee that has the mandate of promoting a collegial work environment through education and social activities

Faculty from both programs work collaboratively in various committees (e.g., Program Evaluation Committee) and course offerings and planning).

Overall, our work on relational development initiatives is ongoing as we hope to continue to address issues of silos, and encourage collaboration and promote discussions with all members in the DCSN including staff, instructors and faculty.

Recommendation/Priority #5: Data Management and Analysis
Objective: The development of a data management infrastructure to inform program evaluation in real time to respond to changing student demographics
Actions: • Advocate for resources to support the creation of a full-time, permanent data analyst position whose role will be specific to data collection, storage and analysis. It will include the development of an accessible forum for data storage for both programs. Data will be used broadly for curriculum redevelopment, accreditation, periodic program review, and program evaluation opportunities.
Timeline: Immediate
Responsibility for leading initiative: Director, DCSN; Administrative Officer, DCSN
Responsibly for approving recommendation, providing any resources made necessary by the recommendation, and overall monitoring of the implementation of the recommendation: Faculty Dean
Status for 1-year Follow-up Report: To date, a request has not been made to the FCS Dean for the hiring of a staff person to collect, manage and analyze data within the DCSN. This initiate is ongoing and will be considered in the next budgetary cycle. Both programs have representation at the Program Evaluation Committee, which has the mandate of collecting, gathering, and analyzing data pertaining to program delivery, student performance, and student experiences. In Fall 2020, the Dean approved a new Associate Director's Position within the DCSN- Associate Director for Quality Assurance (AD-QA). Appointment of the AD-QA is currently underway. Responsibilities of the AD-QA will include assisting with the data collection and analysis that is associated with various required program reviews such as CNO Approval, CASN accreditation, and Ryerson PPR. It is anticipated that the AD-QA will work closely with the Program Evaluation Committee to establish a process for these activities.

2. An update on the refinement of the programs' learning outcomes.
The position statement of baccalaureate education of the Council of Ontario University Programs in Nursing (COUPN) and the College of Nurses of Ontario, Standards of Practice for Nursing were considered with the development of the revised Program Outcomes for both the Collaborative and Post Diploma Degree Completion Programs. The Program Outcomes for each program will guide the development and delivery of theory and practice courses in each of the courses within the redeveloped programs. The Program Outcomes are available via: https://drive.google.com/file/d/1NXA6IMLA5rg_dZUI-BF_eicG03b2rPWk/view?usp=sharing
The revised program outcomes were reviewed and approved by Dr. Tina West, The Director of Quality Assurance, OVPA and Dr. Paola Borin, Curriculum Development Consultant, OVPA.

The differences in some of the Program Outcomes between the Collaborative Program and the Post Diploma Degree Completion Program (PDDP) are in response to and supportive of the varying needs of the two

different cohorts of students that are admitted into each program. Within the Collaborative Program, a four-Year program, students are mostly admitted directly from high school, with the exception of a small percentage who are admitted with previous university experience in a non-nursing field.

Within the PDDP, a two-year program, the cohort of students in this program are nurses from three distinct groups:
1. RNs with a diploma from a Canadian college
2. IENs with an international RN degree that is not recognized in Canada and who have completed an IEN bridging program
3. RPNs with a diploma from an Ontario college, who have completed a bridging program at an Ontario college

These students enter the program having some foundational knowledge, education and experience of nursing and the health care system prior to being admitted to the PDDP. Many of the students in the PDDP are considered to be at the novice entry to practice level). The PDDP provides this cohort of students the ability to increase their knowledge and understanding of the nursing profession, the Canadian and Ontario Health Care Systems, standards of practice, and jurisprudence of practice in Ontario/ Canada at a BScN level. It also helps them build their critical reasoning and thinking and decision making within the nursing profession at a BScN level

3. The results of updated student and graduate surveys.
As a result of COVID19, graduates from the two undergraduate nursing programs were not surveyed as many of the graduates are front line workers and it was believed that surveying them would only add to the enormous demands they are currently experiencing in their daily lives. As an alternative, students in the last year of the programs (graduating in S2021, year 4 students in the Collaborative Program and year two students in the Post Diploma Program), were invited to attend online sessions where they could provide feedback on the programs. Two development consultants from the Office of the Vice Provost Academic carried out the online sessions.

Two sessions were held with the PDDP students. All students in the Full-time and Part-time deliveries of the program were invited to attend these sessions. Within the report that was provided
https://drive.google.com/file/d/1H1XrYfj0uGRRYCITTlRF9okIHkznJg91/view?usp=sharing

Students identified the following as being positive about the program:
- Overall, faculty members are supportive, and respond quickly to questions.
- The length and flexibility of the delivery of the program is reasonable.
- Having specific days set for classes and due dates for assignments.
- The layout of the course syllabi.

Students identified the following areas that were not working in the program:
- There was content overlap in content in some of the courses in PDDP.
- There was content overlap in content in PDDP courses with courses in previous programs.
- The documentation for the Vsim (virtual learning) product is lengthy and time consuming.
- In response to COVID, there was limited access to clinical placements during the F2020 term.
- Students did not feel that they were prepared to write the licensing exam (NCLEX).

Students provided the following suggestions for changes for the program:
- There should be an increase in the number of clinical placements as they did not find Vsim (virtual resource) to be a good replacement for clinical placements.
- Having access to labs to practice their clinical nursing skills.

- Pathophysiology and pharmacology should be further integrated into the courses that are delivered in the program.
- There be resources provided to help them prepare for the NCLEX exam.

In response to concerns about limited placements, the PDDP expanded the process of acquiring placements for students. Students enrolled for W2021 clinical placements were requested to provide the names and contact information of their places of employment. All organizations that were identified by the students were contacted by the Central Placement Office in the DCSN secure clinical placements for these students at their place of employment. The response to this initiative was very positive and has resulted in an increase in the number of clinical placements for the W2021 term. As well, students that were in VSim (virtual learning) settings in the F2020 term have been prioritized for actual clinical placements in the W2021 term. We remain hopeful that we will be able to provide all students in the W2021 term with clinical placements.

To address students' concerns about feeling unprepared to write the NCLEX licensure exam and their request for resources and additional pathophysiology and pharmacology content, students will be provided with access to the "Nurse Achieve" at no cost to the student. This is a product that prepares students for the NCLEX exam by providing them with NCLEX-like exam questions and test taking strategies. In addition, we will be setting up monthly online NCLEX exams via the Nurse Achieve product that students will be able to write and receive feedback on their performance on each question at their convenience. As well, throughout the months of February to July, students will have access to all of the educational materials within the product and they will be able to take additional tests on specific topics at the time of their convenience. As well, PDDP students will be invited to sign up for week-long boot camp(s) (no cost to the students) that will include reviews of content and daily practice NCLEX like exams. This boot camp will run weekly throughout the months of May and June, after the students have graduated during the time they are preparing to write their licensing (NCLEX) exam.

To address students' concerns about the overlapping content in PDDP courses, the PDDP's curriculum is being redeveloped. One of the objectives of this redevelopment process is to identify and eliminate content overlaps with the courses in the PDDP. There is a plan within the redevelopment for incorporating a Pathotherapeutics course in the curriculum. As well, pathophysiology and therapeutics will be incorporated into other courses of the curriculum.

In response to students' request for open labs, the PDDP is planning to open simulation lab times for PDDP students post the COVID-19 pandemic so that they can review and practice skills.

Similar to the sessions that we held with the PDDP, all students in year four in the Collaborative Program were invited to attend two online sessions where they could provide feedback on the Collaborative Program. Two development consultants from the Office of the Vice Provost Academic carried out the online sessions. All forth year students were invited to attend the sessions). Within the report that was provided: https://drive.google.com/file/d/1iKf51X1uJElFnCqmgZAww5JrvyvuuxXu/view?usp=sharing, the Collaborative Students identified the following as being positive about the program:
- Having clinical placements each term
- Instructors being supportive and inclusive
- Having labs where they can practice clinical skills
- Virtual simulation

Students identified the following areas that were not working in the program:
- The types of placements, most placements were in Long Term Care Facilities rather then Acute Care Settings
- The geographic location of placements was often far away from where the students lived

- The "all community" placement in 3rd year made students to feel they "lost their clinical skills".
- VSim was demanding and lengthy to complete.

Students provided the following suggestions for changes for the program:
- There should be more placements in acute care settings
- Students should be exposed to different types of placements (e.g. peds, maternal health, mental health)
- The curriculum should be spread out, as 2nd year is the hardest, most difficult content

Students' concerns about the curriculum have been addressed in the curriculum redevelopment process, which has incorporated many of the students' suggestions. The Year 2 practice content has been spread out more evenly between the fall and winter semester courses, and pathophysiology content now includes a 4th year course, which allows content to be spread out while also giving the students the opportunity refresh and further develop pathophysiology knowledge as they near completion of their program. The establishment of theoretical courses focussing on maternal/child health and mental health, and accompanying clinical practice courses, increases the opportunity for exposure to placements in these areas of practice.

For both programs, in response to concerns about the availability of clinical placements, the Central Placement Office (CPO) continues to make requests to all acute care settings for placements in the GTA and beyond for placements. All placements sites are chosen to allow for students to meet the course learning outcomes. While the CPO makes every effort to place students in locations at a reasonable travel distance from their home, the availability of placements (or lack thereof) in specific geographic locations affects the CPO's ability to do this; especially given the large size of our student body. This situation has become even more challenging with the pandemic related restrictions on clinical placement. In response to COVID19, many clinical partner institutions reduced the number of students that they are able to receive due to social distancing requirements and the difficulty in finding preceptors among exhausted frontline nurses. Students who require opportunities in clinical practice to demonstrate course learning outcomes will be offered placements in the S/S 2021 term (as an exception and in coordination with the Office of Registrar), if all required Winter 2021 placements cannot be secured. Students who were in 100% VSim (virtual settings) during the F2020 term, have been prioritized for placements in W2021 term (at the time of writing this report, clinical placements for all of these students have been secured). The VSim resource that we provided to students served as an excellent adjunct to clinical practice; while the scenarios are demanding time consuming, they do provide students with the opportunity to develop their critical thinking and decision-making skills.

4. Updated Tables to 2016/17 for data that were not available at time of submission.
Enclosed via the following link:
https://drive.google.com/file/d/1NiwSQWE6OcFwq7WuydHFJamj6zEoIGEV/view?usp=sharing is a copy of the data and updated tables for the 2016-2017 academic year. Upon review of the tables, there is nothing noteworthy of further elaboration. The trends remain consistent, there were no identified significant changes during this academic year.

5. An updated library report. Enclosed via the following link:
https://drive.google.com/file/d/11vCTic12tb7z6tWx_BgjaN9N1nR_J409/view?usp=sharing is a copy of the Library Report dated September 18, 2020. This report confirms that Ryerson's Library is appropriately equipped with resources to support both the Collaborative and Post Diploma Degree, Undergraduate Nursing Programs. The report acknowledges that both the book and journal collections that support both of the undergraduate nursing programs are extensive and comparable to collections in other similar sized libraries. There were no concerns raised in the report about the Library's ability to meet the needs of the undergraduate nursing programs.

In response to the changes in innovation and the digital delivery infrastructures at the library, the report identifies the need for Ryerson University to continue investing in the library, so that it is able to meet the demands of programs, students and faculty across the University.

ii. GRAPHIC COMMUNICATIONS MANAGEMENT Two-Year PPR Follow-up Report
This follow-up report addresses the recommendations stated in the Academic Standards Committee's assessment of the Periodic Program Review of the Bachelor of Technology (BTech) in Graphic Communications Management degree program, approved by Senate in April 2018, as well as the recommendations following the one-year follow up report review (October 2019).

1. Survey with the graduating class of 2018/19 and 2019/2020 to assess the effectiveness of the revised curriculum.
A study on the revised curriculum's effectiveness took place mid-June into the first week of July 2020. The survey was sent out to 258 students from the graduating class of 2019/20 and 2018/19. Overall there were 113 responses from these graduating classes resulting in a response rate of 43.8%. The majority of the responses (85%) came from the graduating class of 2019/20.
The survey contained several questions. Important trends and highlights will be discussed in this report. The supplied answers show that 89% of the respondents graduated after four years of study and 94% of the respondents agreed that this was attainable.
Concentrations - The revised curriculum from 2015 also introduced concentrations into the program. Of the respondents, 76% chose a concentration. Also, 74% of the respondents deemed the ability to complete a concentration as either important or very important.
Minors - The students were also asked if they completed a minor as part of their students. Of the respondents, 69% completed a minor and, the most frequently taken minor was Marketing followed by Communication Design. How important minors are to the students in Graphic Communications Management can be seen in that 77% of the respondents deemed it either very important or somewhat important to have the ability to complete a minor.
Working in the industry - The students were also asked in what industry they would like to work in upon graduation. In total 72% of the respondents are working in the industry or in industries related to packaging or in an industry related to their GCM degree. From the respondents 6% wanted to continue their studies in a field related to their degree. One question asked students if they were working in an industry related to their studies. Results showed that 66% of the respondents have employment that is related to their GCM degree. Also, 94% of respondents said their degree provided them with access to employment opportunities they otherwise would not have found. Overall, 77% of respondents replied that their GCM degree prepared them for employment. Students also reported that the program provides them with excellent connections to the industry they would like to enter.
Hands-on learning experience - One of the revised curriculum goals implemented in 2015 was to provide students with more opportunities for hands-on learning. When asked if they would prefer more lectures or more lab hours, 58% of respondents would prefer more lab hours in the curriculum, whereas 34% feel the balance of lecture to lab hours is about right. 8% of respondents would prefer more lecture hours. Almost 50% of students say a balance exists between required and elective courses, whereas 16% would prefer more required courses and 37% would prefer more elective courses. Having this balance in the curriculum is an essential outcome of this study.

2. Update on the suggestion by ASC to reduce the number of courses from 44 to 40.
In the spring of 2020, GCM faculty held a virtual retreat, and one of the topics of the agenda was to discuss the suggestion by ASC to reduce the number of courses from 44 to 40. At the same retreat, the department discussed the tremendous growth and success of the program, and as a result of those discussions the School is investigating the possibility of offering a second undergraduate program focusing on packaging. It was decided that if the School is going to do a comprehensive review and overhaul of its undergraduate

curriculum, it is logical to revisit the number of courses at that time, since the outcome of such an endeavour would be two programs considerably different than the one that exists today. It is anticipated that the review and possible modification of the GCM undergraduate programming will commence in fall 2021.

3. Consideration of:
- **how GCM might Indigenize and decolonize the curriculum through ways such as course redesign, rethinking pedagogical practices and adding authors/work that is reflective of Indigenous and post/anti colonial perspectives.**
- **bringing in guest presenters who speak to EDI issues and linking these presentations back into student assessments.**
- **how having more female faculty members will or could transform the program.**

EDI Initiatives - Equity Diversity and Inclusion remains a top priority for GCM, and we continue to evolve to ensure that the School is an inclusive, safe space for everyone. Over the last year, there have been several significant initiatives instituted by GCM with regards to EDI. These include, but are not limited to:

● The creation of an EDI committee. The role of the EDI committee is to identify key issues relating to EDI within the School, and recommend key strategies to improve EDI within the fabric of the program.

● In the spring of 2020, the School denounced the use of Shirley Cards in the industry, and made the decision to remove all use and reference of Shirley Cards from the curriculum. Shirley Cards are images used for colour calibration in photo labs and on printing presses all over the world, and either contain all-white female models, or an image of racially mixed women often depicted in insensitive stereotypes. A good summary of the issue around Shirely Cards can be read here: https://www.upworthy.com/a-brief-history-of-color-photography-reveals-an-obvious-but-unsettling-reality-about-human-bias

● As of Fall 2020, the following EDI statement was added to the GCM Course outline template: "The School of Graphic Communications Management supports a non-sexist, non-transphobic, non-homophobic, non-ableist and non-racist environment and is committed to upholding the values of equity, diversity and inclusion. The School also supports an inclusive learning environment where diverse perspectives are recognized, respected, and seen as a source of strength."

● In Winter 2020, the School advertised for two full-time RFA teaching positions. The School worked very closely with HR to ensure that the job postings were advertised in places that maximized exposure to underrepresented groups in an attempt to diversify the type of applications received. As an outcome of the hiring process a female and a male instructor were hired who come from diverse backgrounds.

As mentioned earlier in this report, GCM is preparing to do an exhaustive review of its undergraduate curriculum that could result in a new undergraduate program offering. As part of this process, it will be necessary to reimagine the current undergraduate curriculum. This will be an ideal time for the School to build EDI, decolonization and indigenization into the foundational core of the curriculum as opposed to trying to adapt to what already exists. The School is committed to making EDI, decolonization and Indigenization top priorities as it explores this major curricular overhaul. Similarly, GCM is in the process of developing a letter of intent for a Master program, and the same considerations and care will be put into that process and development.

The School continues to diversify guest speakers in both background and subject matter. For example, one professor, acknowledging that the student population at GCM is predominantly female, only invites female industry guest speakers to present to the class. Similarly, the School endorses the "Girls Who Print" initiative (https://girlswhoprint.net/). These initiatives are very well received by the students, and are congruent with current industry efforts to better recognize and promote female leaders within the graphic communications industry.

Other instructors within GCM are also seeking ways to diversify the backgrounds of guest speakers and course topics when possible. In one example, in the Special Topics course delivered in Fall 2019, there was a topic and class presentation about typefaces for Canadian Indigenous languages.

GCM continues to advocate for more female faculty members and instructors to better reflect the predominantly female composition of our student body. The School feels that this is extremely important. Not

only will the faculty complement better reflect the student population, but female faculty members bring their own unique perspectives to the classroom that can be quite transformational for the School and the students.

Respectfully Submitted,

Kelly MacKay, Chair for the Committee

ASC Members:
Charmaine Hack, Registrar
Donna Bell, Secretary of Senate
Kelly MacKay, Chair and Vice-Provost Academic
Denise O-Neil Green, Vice President, Equity and Community Inclusion
Bettina West, Director, Curriculum Quality Assurance
Amy Peng, Faculty of Arts, Economics
Dale Smith, Faculty of Arts, English
Gavin Adamson, Faculty of Communication and Design, Journalism
Robert Clapperton, Faculty of Communication and Design, Professional Communication
Eric Liberda, Faculty of Community Services, Occupational & Public Health
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Jurij Leshchyshyn, Faculty of Engineering & Architectural Science, Architectural Science
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Gagan Gupta, Faculty of Science, Chemistry and Biology
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Julia Spagnuolo, Student
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