

# Two-Year Progress Report

## Mathematics/Teaching (BMath)

### December 2020

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#### **Background**

The last review of the Mathematics/Teaching (BMath) program was conducted in 2015-2016. The Final Assessment Report was approved by Senate in November 2018. The report pointed out many positive aspects of the program, including the extensive mathematics background of its graduates, in addition to the direct and relevant high school teaching experience gained through co-op placements. The report also offered some recommendations from the external reviewers. In order to implement the recommendations, the goals, objectives and key priorities for the program were reconfirmed through consultation between the CEMC Director, current program personnel, and the Director of Mathematics/Teaching. These include:

- Providing students direct and relevant work-term experience in the teaching profession
- Graduating competent mathematics students who are prepared to be future leaders within the teaching profession
- Exposing students to work-terms in business in industry in order to help inform the students' teaching

#### **Progress on Implementation Plan**

1. Mathematics/Teaching should be continued and succession planning should begin in a manner that allows for an overlap with existing faculty. This will allow existing practices to be understood and relationships with existing schools to be continued.

##### **Status: completed**

Details: A new Director for the program was appointed in July 2018. Discussions around interest and availability with current staff provided additional personnel who have been brought in to support the program going forward. The previous Director of the program continues to work within the [Centre for Education in Mathematics and Computing](#) (CEMC), allowing for existing practices to be understood and relationships with existing employers to be continued.

2. Modification of the existing MTHEL course should be considered, such as changing the orientation from teacher/textbook-centered approaches to student-centered approaches.

##### **Status: completed**

Details: The course syllabus for MTHEL 206A was revamped in Winter 2019, and the Spring 2019 offering was delivered following the new syllabus. Among other changes, MTHEL 206A now familiarizes students with a variety of teaching techniques, introduces students to current curriculum expectations and evaluation philosophy, and explores successful classroom management strategies.

3. Addition of a second MTHEL course should be considered. For example, bringing the students back together to debrief their placements would be beneficial. In effect, the first MTHEL course is taken, the placements are done, but there is no opportunity for students to reflect on their teaching experience within their cohort. Having a mechanism whereby students could share, and reflect on how their co-op placements connected to the concepts taught in the first MTHEL course would be worthwhile and enrich the educational experience.

**Status: in progress**

Details: We have continued discussions about this possibility. Finding an appropriate term in which to offer a “MTHEL 206B” course so that each Mathematics/Teaching student could fit this course into their schedule is a challenge. The significant benefits may warrant finding a solution to this challenge. Alternatively, we have had discussions about offering an evening seminar as a program milestone in place of a course. As of December 2020, the offering of a “MTHEL 206B” is no longer a consideration. Alternatives such as a program milestone are still being considered.

4. The Teaching option [now known as Mathematics/Teaching] should be advertised as such in the Calendar (on first glance, it currently appears to be available only through the stand-alone Mathematics/Teaching program), so that more students recognize the opportunity to individualize or add extra value to their degree.

**Status: in progress**

Details: The opportunity to combine Mathematics/Teaching with most departmental honours plans in the Faculty of Mathematics is stated as a note within the Calendar. This note will be placed in a more prominent location within the Calendar effective Fall 2021.

5.
  - (i) Further increase in enrolment may be achieved through the use of statistics to show that there is a need for mathematics teachers.
  - (ii) In conjunction with this, broadening the placements to clearly include grades 7-10 and/or placements in community colleges may help address a need for more placement options.
  - (iii) Lastly, having an arrangement for direct admission into a Faculty of Education

would also provide additional motivation for students to consider adding the teaching option to their degree.

Status: (i) **completed**, (ii) **in progress**, (iii) **in progress**

Details:

- (i) The statistics showing the need for mathematics teachers have been sourced and are being shared with prospective Mathematics/Teaching students at program information sessions.
- (ii) It is necessary to increase the number of students in the program before the number of placements. Having said this, program personnel are in the process of connecting with potential future employers so that when program enrolment increases, the addition of placements may follow efficiently.
- (iii) We agree that direct admission into a Faculty of Education may provide additional motivation for students to choose Mathematics/Teaching. It would however also restrict the possible choices of subjects that students could select as a second teachable. Discussions, both internally and with potential Faculties of Education, will continue.

### Updated Implementation Plan

|    | Recommendations  | Proposed Actions  | Responsibility for Leading and Resourcing (if applicable) the Actions | Timeline for addressing Recommendations   |
|----|--|---|---|---|
| 1. | Succession planning  |   |   | Completed   |
| 2. | MTHEL206A course modification  |   |   | Completed   |
| 3. | Addition of MTHEL206B  | Continue discussions  | Director, Mathematics/<br>Teaching                                    | Ongoing; decision to be made by end of 2020   |
| 4. | Promotion of Mathematics/Teaching in the Course Calendar   | Changes to Calendar have been requested   | Director, Mathematics/<br>Teaching                                    | Seeking final approval April 2020, for Fall 2021 Calendar   |
| 5. | (i) Use of statistics<br>(ii) Broadening placements<br>(iii) Partnership with a Faculty of Education | (i) Continue to update stats and share with prospective M/T students<br>(ii) Continue to connect with prospective employers<br>(iii) Continue discussions | Director, Mathematics/<br>Teaching                                    | (i) Completed<br>(ii) Bring on new employers as is needed to meet enrolment growth<br>(iii) Ongoing; decision to be made by end of 2020 |

The Department Chair/Director, in consultation with the Dean of the Faculty shall be responsible for monitoring the Implementation Plan.



Date of next program review: \_\_\_\_\_

2022-23

Date

Signatures of Approval:

12/12/2019

Chair/Director

Date

AFIW Administrative Dean/Head (For AFIW programs only)

Date

Jan 21, 2020

Faculty Dean

Date

**Note:** AFIW programs fall under the Faculty of ARTS; however, the Dean does not have fiscal control nor authority over staffing and administration of the program.

May 26, 2020

Associate Vice-President, Academic  
(For undergraduate and augmented programs)

Date

Associate Vice-President, Graduate Studies and Postdoctoral Affairs  
(For graduate and augmented programs)

Date

## Checklist for SUC/SGRC Reviewer Feedback Quality Assurance Office

**Two-Year Progress Report: Math / Teaching**

**Name of Reviewer: Cristina Vanin**

**Date: 1/25/2021**

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### **Does the Two-Year Progress Report:**

- |  |  |                                    |
|--|--|------------------------------------|
| 1. Clearly describe progress achieved on the various action items in the implementation plan?  | <input checked="" type="checkbox"/> <b>Yes</b> | <input type="checkbox"/> <b>No</b> |
| 2. Explain convincingly any circumstances that would have altered the original implementation plan?  | <input checked="" type="checkbox"/> <b>Yes</b> | <input type="checkbox"/> <b>No</b> |
| 3. For items that are behind schedule, propose an amended implementation schedule that is reasonable and credible?   | <input checked="" type="checkbox"/> <b>Yes</b> | <input type="checkbox"/> <b>No</b> |
| 4. Address significant developments or initiatives that have arisen since the program review process, or that were not contemplated by the program review process? | <input checked="" type="checkbox"/> <b>Yes</b> | <input type="checkbox"/> <b>No</b> |

### **General Comments**

**I appreciate the clear feedback that the program provided to the questions that I raised about the two-year progress report.**