

Request for Calendar Change Form

Tracking No:
(Senate Secretary's Office
use only)

Date:

To	Secretary of Senate	
From	Name(Dean):	Faculty
	John O'Meara	Education
	Department the change relates to	
	Undergraduate Studies in Education	
	Contact Person	
	Paul Berger	

Is the proposed calendar change Undergraduate

Instructions:

1. In all cases please complete and attach section 1 and 2
2. If the calendar change affect other departments/schools/faculties complete and attach section 3
3. If the answer to any of the questions below is yes, explain. Attach separate sheets with reference to the question

- | | | |
|--|---------------------------------|---|
| 1. Do the proposed changes affect other departments/ schools/faculties in terms of their calendar change? | Yes
<input type="checkbox"/> | No
<input checked="" type="checkbox"/> |
| 2. Is a transition plan needed for student in progress? | Yes
<input type="checkbox"/> | No
<input checked="" type="checkbox"/> |
| 3. Are the proposed changes likely to affect student enrollment in your department/school/faculty? | Yes
<input type="checkbox"/> | No
<input checked="" type="checkbox"/> |
| 4. Are the proposed changes likely to affect student enrollment in other departments/schools/faculties at Lakehead University? | Yes
<input type="checkbox"/> | No
<input checked="" type="checkbox"/> |
| 5. Will the proposed changes require additional teaching space and/or teaching staff and/or equipment and/or other resources? | Yes
<input type="checkbox"/> | No
<input checked="" type="checkbox"/> |
| 6. Will the proposed changes affect existing teaching loads within your department/school/faculty? | Yes
<input type="checkbox"/> | No
<input checked="" type="checkbox"/> |
| 7. Will the proposed changes increase demand for teaching support services such as the library, computing services and technical staff ? | Yes
<input type="checkbox"/> | No
<input checked="" type="checkbox"/> |
| 8. Will the proposed change require direct or in-kind support from outside the academic unit? | Yes
<input type="checkbox"/> | No
<input checked="" type="checkbox"/> |
| 9. Do the proposed changes include change in course(s) which is/are required core course(s) for a major? | Yes
<input type="checkbox"/> | No
<input checked="" type="checkbox"/> |
| 10. Do the proposed changes include a change in course which is | Yes | No |

- service/required course(s) in another program? Yes No
11. Do the proposed changes include change in course(s) which is/are open elective available to any student in any program? Yes No
12. Do the proposed changes include change in course(s) which is/are elective in a major i.e. restricted to students in a major? Yes No

Signatures:

Date approved by faculty council
09/11/2012

Section 1

Description of the Proposed Calendar Change:

Removing Math Competency Exams from the Math Methods Courses for P/J and J/I and creating mandatory non-credit courses for the exams.

Rationale of the Proposed Calendar Change(s):

(Corresponding to Section 2 where required)

The PJ math methods course ED 4050 currently includes a high-stakes mathematics exam to test students on the mathematics they need to know to teach in the Primary and Junior divisions. This change removes the exam from the methods course to create a non-credit compulsory stand-alone course (EDUC 0450), similar to the Faculty of Natural Resources Management courses Writing Across the Curriculum. A robust body of research demonstrates that to teach mathematics successfully in the Primary and Junior divisions, teachers must know the mathematics they will teach. The increasing number of students who fail the PJ Mathematics Content Exam in September has meant an increasing amount of work for the PJ mathematics instructors who have typically created, invigilated and graded the exam, then met individually with each student who fails, and then repeated this for the March exam which is written only by those who were not successful in September. The increasing burden created by a task that is not directly related to the mandate of the methods course led to piloting a new strategy in 2012/2013. An exam coordinator (contract lecturer) was hired to invigilate the exam, help grade it, and meet with students who failed it. This has proven to be a great success. There has been an increase in the number of students opting to take the non-credit math skills upgrading course through the Department of Professional Development in Education; this means their math skills are significantly more likely to increase compared to others who try to address their math difficulties alone, with a conventional tutor, or not at all. It is thus more likely for them to succeed in the March writing of the Math Content Exam and their increasing mathematics competence means they get more out of their methods course. This is already being felt by ED 4050 instructors. We believe this change is occurring because more students have met to review their unsuccessful exams at an earlier date, and that this is because a third party (the exam Coordinator rather than methods course instructor) has conducted the meetings. Previously, some students may have tried to 'hide' their difficulties by not meeting with their instructor to discuss the failed exam; the exam coordinator is outside the methods course and therefore may be less intimidating to students who are struggling. In an ideal world, students would come to the PJ program with a solid understanding of the math they will teach in the Primary and Junior grades. In fact we know this is not the case for many students. The Lakehead emphasis on mathematical competency has begun to be noticed by

school boards in southern Ontario. Anecdotal evidence suggests that Lakehead graduates are sought after because of their preparation to teach math, including their understanding of the math they will teach. Lakehead has the only Faculty of Education in Canada with compulsory high-stakes math exams; the dedication and energy required for this is not insignificant, but the benefits are great. Paradoxically, the math content exam is also used in recruiting students to the Lakehead Bachelor of Education programs. At the Ontario Universities Fair Education faculty have been observed engaging prospective students about how they feel about math, and describing how we are committed to giving our students the background and tools needed to be effective math teachers. As many prospective Primary Junior students are math-averse or math-phobic, this assurance that we take mathematical understanding seriously and that we have a course built into the concurrent program (ED 2010), and remedial help as well, to make sure they are ready to teach, becomes a draw.

The JI math methods course ED 4151 currently includes a high-stakes mathematics exam written in March to test students on the mathematics they need to know to teach in the junior division. This change removes the exam from the methods course to create a non-credit compulsory stand-alone course (EDUC 0451), similar to the Faculty of Natural Resources Management courses Writing Across the Curriculum. A robust body of research demonstrates that to teach mathematics successfully in the Junior division, teachers must know the mathematics they will teach. Grounds for moving the exam out of the math methods course mirrors the reasoning set out in the ED 0450 calendar change: students are more likely to address their weakness in math and seek remediation if the exam coordinator is not their math methods course instructor. Offering the exam in early September and March, instead of just in March, also increases the chance for remediation, and will reduce student anxiety levels; rather than worrying all year about the exam, the majority of students will have passed it early, and the rest will know they need to improve - with many taking 'Math for Teaching JI' offered through the Department of Professional Development in Education. A decrease in student anxiety and increase in student mathematical competency will improve learning in the math methods course, leading to more successful students. As a pilot in 2012/13, an exam coordinator (contract lecturer) was hired to create and invigilate a pilot exam, help grade it, and meet with students who failed it. This was successful with almost 30 students volunteering to take the pilot exam on Saturday September 8th. In an ideal world, students would come to the JI program with a solid understanding of the math they will teach in the Junior grades. In fact we know this is not the case for many students. The Lakehead emphasis on mathematical competency has begun to be noticed by school boards in southern Ontario. Anecdotal evidence suggests that Lakehead graduates are sought after because of their preparation to teach math, including their understanding of the math they will teach. Lakehead has the only Faculty of Education in Canada with compulsory high-stakes math exams; the dedication and energy required for this is not insignificant, but the benefits are great.

Section 2

Existing Calendar Entries:
(Page reference based on hard copy or URL based on electronic version of calendar)

Proposed Calendar Entries/Addition/ Deletion
-If only addition, specify page number and placement in university calendar
-If only deletion, write Deleted

<http://mycoursecalendar.lakeheadu.ca/pg19.html> Adding Education 0450 and 0451
Mandatory Non Credit Math Exam Courses

c) Primary-Junior students are required to demonstrate mathematics proficiency in conjunction with the Mathematics methods courses, Education 4050 (Curriculum and Instruction in Mathematics, Primary-Junior), taken in the Professional Year. PJ students must pass, to a 75% level of competence, an examination set at the Ontario Gr. 6/7 level. Students who do not pass the initial sitting in the fall may retake the test the following March. Students who do not pass the Mathematics Content examination in March will not be recommended for teacher certification in the Province of Ontario. The PJ course, Education 4050, may only be repeated once. For more information contact the Department of Undergraduate Studies in Education.

Junior-Intermediate students must pass the three components of the mathematics methods course, Education 4151 (Curriculum and Instruction in Mathematics, Junior-Intermediate), taken during the Professional Year, namely the term work, the culminating project, and the final "mathematics for teaching examination" written in March. To demonstrate sufficient mathematical competence and thereby pass the course, students must score a minimum of 60% on that final examination.

Students who are not successful on the initial writing of the examination may rewrite an additional examination to be arranged by the instructor.

c) Primary-Junior students are required to demonstrate mathematics proficiency in Education 0450 (Mathematics Competency Exam, Primary-Junior) taken in the Professional Year. Students may write the exam in September and, if unsuccessful, again in March. Students must pass the competency exam at the 75% level to pass Education 0450. Students must pass Education 0450 in order to successfully complete the BEd and be recommended for teacher certification in the Province of Ontario. Students who do not pass Education 0450 may only repeat the course once, and this must be in the following academic year. A grade of "Pass" or "Fail" will appear on the student transcript for each registration in the course.

Note: Education 0450 is restricted to Professional Year students only

Junior-Intermediate students are required to demonstrate mathematics proficiency in Education 0451 (Mathematics Competency Exam, Junior-Intermediate) taken in the Professional Year. Students may write the exam in September and, if unsuccessful, again in March. Students must pass the competency exam at the 75% level to pass Education 0451. Students must pass Education 0451 in order to successfully complete the BEd and be recommended for certification in the Province of Ontario. Students who do not pass Education 0451 may only repeat the course once, and this must be in the following academic year. A grade of "Pass" or "Fail" will appear on the student transcript for each registration in the course.

Note: Education 0451 is restricted to Professional Year students only

Section 3

The Faculty(ies) affected by the proposed calendar change

All Concurrent Programs

I have been consulted regarding the attached calendar change and understand the academic and budgetary implication on my Dept./School/Faculty.

I agree to this calendar change proposal Yes No

Paul BERGER, Acting Chair Paul Berger - March 5, 2013

Name: J. O'Meara

Faculty: EDUC

Date: March 5/12

Signature of Dean

John O'Meara