

Request for Calendar Change Form

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

Date:

To From	Secretary of Senate Name(Dean):	Faculty
	Andrew P. Dean	SES
	Department the change relates to	
	Mathematical Sciences	
	Contact Person	
	Adam Van Tuyl	

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 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	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
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	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Signatures:	Date approved by faculty council			
	<input style="width: 150px; height: 20px;" type="text"/>			

Section 1
Description of the Proposed Calendar Change:
Replace Math 4101 and Math 4221 with four half year courses
Rationale of the Proposed Calendar Change(s):
(Corresponding to Section 2 where required)
<div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>1</p> <p>Math 4101 (Measure and Integration) and Math 4221 (Topology) are two full year courses currently in our calendar. Because they are full year courses, we do not have the resources to run these courses. We wish to split each year course into two half year courses, which will enable us to run these courses on a rotating basis.</p> </div>

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

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<http://mycoursecalendar.lakeheadu.ca/pg180.html>

Mathematics 4101 Measure and Integration
Credit Weight: 1.0
Description: The classical Lebesgue theory.
Offering: 3-0; 3-0

[Delete Math 4101 and replace with the following two courses]

Math 4www Measure Theory
Credit Weight: 0.5
Prerequisite(s): Math 3233

Description:
Measure spaces, measurable functions, measures, the integral, integrable functions, the Lebesgue dominated convergence theorem, modes of convergence, Egoroff's theorem, the Hahn and Jordan decomposition theorems, the Radon-Nikodym theorem, Lebesgue spaces, and the Reisz representation theorem for Lebesgue spaces.

Offering: 3-0 or 3-0

Math 4yyy Introduction to Functional Analysis
Credit Weight: 0.5
Prerequisite(s): Math 3233

Description:
This course covers normed vector spaces, bounded operators, Baire category, the Banach-Steinhaus theorem, the open mapping theorem, the closed graph theorem, the Hahn-Banach theorems, Hilbert spaces, the Riesz representation theorem, and compact operators.

Offering: 3-0 or 0-3

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<http://mycoursecalendar.lakeheadu.ca/pg180.html>

Mathematics 4221 Topology
Credit Weight: 1.0
Prerequisite(s): Mathematics 3231 and 3233
Description: Topological spaces, continuous mappings, metric spaces, separation axioms, metrizable, compactness, product spaces, elements of homotopy theory and homology

[Delete Math 4221 and replace with the following two courses]

Mathematics 4xxx Point-Set Topology
Credit Weight: 0.5
Co-requisite: Math 3233

theory.

Offering: 3-0; 3-0

Description:

Topological spaces; neighbourhoods, bases, and sub-bases; product spaces and weak topologies; nets and filters; convergence; separation axioms, including Urysohn's lemma and Tietze's extension theorem; compact and locally compact spaces, including Tychonoff's theorem and compactifications; metrizability; and connectedness.

Offering: 3-0 or 3-0

Mathematics 4zzz Introduction to Fourier Analysis

Credit Weight: 0.5

Prerequisite(s): Math 3233

Description:

Fourier analysis on the circle, Dirichlet kernel, Fejer's theorem, convergence of Fourier series.

Offering: 3-0 or 3-0

Section 3

The Faculty(ies) affected by the proposed calendar change

Science and Environmental Studies

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

Name:

Adam Van Tuyl

Faculty:

Dept. of Mathematical Science, Faculty of Science and Env't. Studies

Date:

26/10/2010

Signature of Dean

I agree to this calendar change proposal Yes No

Name:

Andrew P. Dean

Faculty:

Science and Environmental Studies

Date:

Signature of Dean