

Request for Calendar Change Form

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

To Secretary of Senate
From 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 | 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
15/11/2011

Section 1
Description of the Proposed Calendar Change: Replacing Math 4361 and Math 4382
Rationale of the Proposed Calendar Change(s): (Corresponding to Section 2 where required)
1 RATIONALE: Math 4361 (Topics in Actuarial Mathematics) and Math 4382 (Topics in the Mathematics of Finance) are two courses that used to be part of our Math Finance Program. This program was deleted, so these courses are no longer needed. We are replacing these two full year courses with four half year courses. The new courses better reflect the strengths of the faculty, and are intended to increase our list of electives at the third and fourth year.

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

1

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

Mathematics 4361 Topics in Actuarial Mathematics

Credit Weight: 1.0
Prerequisite(s): Mathematics 2333

Description: Mathematics of compound interest, mathematics of life contingencies, risk theory, mathematics of demography, mathematics of graduation and mortality table construction. The course content may change from year to year depending on Parts 4 and 5 of the Society of Actuaries examinations.

Offering: 3-0; 3-0

[Delete course and replace with following two courses]

Math 3AAA Geometry of Curves and Surfaces

Credit Weight: 0.5
Prerequisite(s): Mathematics 2131 or Mathematics 3012

Description: Planar curves, including the Jordan curve theorem and the isoperimetric inequality; space curves, including the Frenet frame, indicatrices and total curvature, knots and links; regular surfaces; first and second fundamental forms; tensor notation; Gauss' equations and Christoffel symbols; geodesics; the Gauss-Bonnet theorem and applications.

Offering: 3-0; or 3-0

Math 3BBB Mathematical Problem Solving

Credit Weight: 0.5
Prerequisite(s): Mathematics 2232

Description: This course is intended to help students develop techniques to solve problems from various mathematical fields. Problems will be drawn from probability, algebra, geometry, combinatorics, and other branches of mathematics. Proofs will tend to involve combining techniques such as induction, proof by contradiction, and counting arguments.

Offering: 3-0; or 3-0

2

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

html

Mathematics 4382 Topics in the Mathematics of Finance

[Delete course and replace with following two courses]

Credit Weight: 1.0

Prerequisite(s): Permission of the Chair of the Department

Description: Content will vary from year to year.

SpecialTopic: Y

Offering: 3-0; 3-0

Math 3CCC Theory of Cryptology

Credit Weight: 0.5

Prerequisite(s): Mathematics 1271 or Mathematics 3071

Description: A mathematical introduction to the theory of cryptography and cryptoanalysis.

Offering: 3-0; or 3-0

Math 4XXX Galois Theory

Credit Weight: 0.5

Prerequisite(s): Mathematics 2234

Description: An introduction to Galois Theory; field extensions; splitting fields; the Galois group; Fundamental Theorem of Galois Theory; insolvability of the quintic.

Offering: 3-0; or 3-0

== UPDATE THE MINOR IN MATH =====

3

<http://mycoursecalendar.lakeheadu.ca/pg551.html>

7. Minor in Mathematics

(c) One FCE from Mathematics 2232, 2234, 3032, 3050, 3111, 3113, 3131, 3133, 3171, 3211, 3213, 3231, 3233, 3331, 3333, 3351, 3371, 4101, 4151, 4211, 4213, 4221

7. Minor in Mathematics

(c) One FCE from Mathematics 2232, 2234, 3032, 3050, 3111, 3113, 3131, 3133, 3171, 3211, 3213, 3231, 3233, 3331, 3333, 3351, 3371, 3AAA, 3BBB, 3CCC, 4101, 4151, 4211, 4213, 4221, 4XXX

Section 3

The Faculty(ies) affected by the proposed calendar change

Science and Environmental Sciences (Mathematical Sciences)

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:

Department of Mathematical Sciences

Date:

07/11/2011

Signature of Dean

I agree to this calendar change proposal

Yes

No

Name:

A.P. Dean

Faculty:

Science and Environmental Sciences

Date:



Signature of Dean