

## Request for Calendar Change Form

Tracking No:  
 (Senate Secretary's Office  
 use only)  
 Date:  
 30/09/2011

To From	Secretary of Senate Name(Dean): Dr. A.P. Dean Department the change relates to Mathematical Sciences Contact Person Adam Van Tuyl	Faculty Science and Env't. Studies
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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 checked="" type="checkbox"/>	No <input 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 checked="" type="checkbox"/>	No <input 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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Yes	No
	<input type="checkbox"/>	<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?	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No
	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Signatures: \_\_\_\_\_ Date approved by faculty council \_\_\_\_\_

<b>Section 1</b>
<b>Description of the Proposed Calendar Change:</b> Changing Math 2331 (Probability) and Math 2333 (Statistics) into third year courses
<b>Rationale of the Proposed Calendar Change(s):</b> (Corresponding to Section 2 where required)
<p>=====</p> <p>Rationale for Calendar Change</p> <p>=====</p> <p>Math 2331 and 2333 are required courses for our honours programs in mathematics. Although they have a second year number, the majority of our students take these courses in third year. We wish to change these courses into third year courses to reflect this reality. In addition, for students in our three-year program, they will now have the option of taking these courses to fulfill their requirement of one FCE of math courses at the third or fourth year level.</p> <p>The content of the course will not change. (Some grammar changes were also made to the course description.)</p>
<p>=====</p> <p>Explanations for Questions with a YES</p> <p>=====</p> <p>1. Math 2331 and 2333 are required courses in the following programs: computer science (including one BEd program), economics, biology, bioinformatics, along with our program.</p> <p>9. Math 2231 and 2333 are required courses for our honours programs, and some of the above programs:</p> <p>10. Math 2331 and 2333 are required service for some of the above programs.</p>



**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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CALENDAR ENTRY

1

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

Mathematics 2331 Introduction to Mathematical Probability

Credit Weight: 0.5

Prerequisite(s): Mathematics 1172

Description: A mathematical introduction to the theory and application of probability. Topics may include distributions and their properties, limit theorems, expectation and simulations.

Offering: 3-1; 0-0

Notes: Only one of Mathematics 2321 and 2331 can be taken for credit.

Mathematics 2333 Introduction to Mathematical Statistics

Credit Weight: 0.5

Prerequisite(s): Mathematics 2331

Description: A mathematical introduction to statistics, using the probability theory developed in Math. 2331. Topics include point and interval estimation, test of hypothesis, non-parametric methods, goodness of fit, experimental design, analysis of variance and covariance, regression and correlation.

Offering: 0-0; 3-1

Notes: Only one of Mathematics 2321 and 2333 can be taken for credit.

Mathematics 3XXX Introduction to Mathematical Probability

Credit Weight: 0.5

Prerequisite(s): Mathematics 1172

Description: A mathematical introduction to the theory and application of probability. Topics may include distributions and their properties, limit theorems, expectation and simulations.

Offering: 3-1; 0-0

Notes: Students who have received credit for Math 2331 cannot receive credit for Math 3XXX

Mathematics 3YYY Introduction to Mathematical Statistics

Credit Weight: 0.5

Prerequisite(s): Mathematics 3XXX

Description: A mathematical introduction to statistics, using the probability theory developed in Math 3XXX. Topics include point and interval estimations, tests of hypothesis, non-parametric methods, goodness of fit, experimental design, analysis of variance and covariance, regression and correlation.

Offering: 0-0; 3-1

Notes: Students who have received credit for Math



2333 cannot receive credit for Math 3YYY

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MATHEMATICS PROGRAMS

2

<http://mycoursecalendar.lakeheadu.ca/pg550.html>

3. BA (Mathematics Major)  
Four Year Non-Direct Entry program

4. Honours BA (Mathematics)  
Four Year program

Third Year:  
(a) Mathematics 2331, 2333, 3231, 3233

3. BA (Mathematics Major)  
Four Year Non-Direct Entry program

4. Honours BA (Mathematics)  
Four Year program

Third Year:  
(a) Mathematics 3XXX, 3YYY, 3231, 3233

3

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

2. BSc (Mathematics Major)  
Four Year Non-Direct Entry program

3. Honours BSc (Mathematics)  
Four Year program

Third Year:  
(a) Mathematics 2331, 2333, 3231, 3233

7. Minor in Mathematics

(b) One FCE from Mathematics 1281, 2050, 2070, 2111, 2131, 2255, 2275, 2331, 2333, 3012, 3071, 4030

2. BSc (Mathematics Major)  
Four Year Non-Direct Entry program

3. Honours BSc (Mathematics)  
Four Year program

Third Year:  
(a) Mathematics 3XXX, 3YYY, 3231, 3233

7. Minor in Mathematics

(b) One FCE from Mathematics 1281, 2050, 2070, 2111, 2131, 2255, 2275, 3XXX, 3YYY, 3012, 3071, 4030

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COMPUTER SCIENCE PROGRAMS

4

<http://mycoursecalendar.lakeheadu.ca/pg277.html>

1. Honours BSc (Computer Science)  
Cooperative Program

1. Honours BSc (Computer Science)  
Cooperative Program



2. BSc (Computer Science) - Co-op  
Four Year Non-Direct Entry program

3. BSc (Computer Science Major)  
Three year program

4. HBSc (Computer Science Major)  
Four Year program

5. BSc (Computer Science Major)  
Four Year Non-Direct Entry program

6. Specialization in Game Programming

(a) Business Option

Second Year (Fall and Winter):  
(a) Mathematics 2255, 2275, 2331, 2333

(b) Science Option

Second Year (Fall and Winter):  
(a) Mathematics 2111, 2255, 2275 and 2331

2. BSc (Computer Science) - Co-op  
Four Year Non-Direct Entry program

3. BSc (Computer Science Major)  
Three year program

4. HBSc (Computer Science Major)  
Four Year program

5. BSc (Computer Science Major)  
Four Year Non-Direct Entry program

6. Specialization in Game Programming

(a) Business Option

Second Year (Fall and Winter):  
(a) Mathematics 2255, 2275, 3XXX, 3YYY

(b) Science Option

Second Year (Fall and Winter):  
(a) Mathematics 2111, 2255, 2275 and 3XXX

5

<http://mycoursecalendar.lakeheadu.ca/pg827.html>

#### COMPUTER SCIENCE

6. BSc, BEd (Computer Science Major) I/S  
Four Year program

Second Year:  
(b) Mathematics 2111, 2255, 2275, 2331

#### COMPUTER SCIENCE

6. BSc, BEd (Computer Science Major) I/S  
Four Year program

Second Year:  
(b) Mathematics 2111, 2255, 2275, 3XXX

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#### ECONOMICS PROGRAMS

6

<http://mycoursecalendar.lakeheadu.ca/pg703.html>

8. Honours BSc (Resource and  
Environmental Economics)  
Four Year program

Second Year:  
(d) Mathematics 2331, 2333

8. Honours BSc (Resource and Environmental  
Economics)  
Four Year program

Second Year:  
(d) Mathematics 3XXX, 3YYY



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BIOLOGY PROGRAMS

7

<http://mycoursecalendar.lakeheadu.ca/pg273.html>

1. BSc (Biology Major)  
Three Year program
2. Honours BSc (Biology Major)  
Four Year program
3. BSc (Biology Major)  
Four Year Non-Direct Entry program

Second Year:  
(c) Mathematics 2321 or the combination of  
Mathematics 2331 and 2333

1. BSc (Biology Major)  
Three Year program
2. Honours BSc (Biology Major)  
Four Year program
3. BSc (Biology Major)  
Four Year Non-Direct Entry program

Second Year:  
(c) Mathematics 2321 or the combination of  
Mathematics 3XXX and 3YYY

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BIOINFORMATICS PROGRAM

8

<http://mycoursecalendar.lakeheadu.ca/pg687.html>

1. Honours BSc (Bioinformatics Major)  
Four Year program

Third Year:  
(d) Mathematics 2111, 2331, 2333

Bioinformatics Core Courses  
Mathematics 2331 - Introduction to  
Mathematical Probability  
Mathematics 2333 - Introduction to  
Mathematical Statistics

1. Honours BSc (Bioinformatics Major)  
Four Year program

Third Year:  
(d) Mathematics 2111, 3XXX, 3YYY

Bioinformatics Core Courses  
Mathematics 3XXX - Introduction to Mathematical  
Probability  
Mathematics 3YYY - Introduction to Mathematical  
Statistics



**Section 3**

The Faculty(ies) affected by the proposed calendar change

Departments: Mathematics, Computer Science, Biology, Economics, Bioinformatics,

Faculties: Science and Environmental Studies, Education

**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



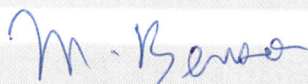
Name:  
Adam Van Tuyl (Chair)

Faculty:  
Mathematical Sciences

Date:  
Sept 28, 2011

Signature of Dean

I agree to this calendar change proposal      Yes       No



Name:  
Maurice Benson (Chair)

Faculty:  
Computer Science

Date:  
Oct 11/2011

Signature of Dean

I agree to this calendar change proposal      Yes       No



Name:   
Livio Di Matteo (Chair)

Faculty:  
Economics

Date:  
Oct 6, 2011

Signature of Dean

I agree to this calendar change proposal      Yes       No

Name:  
Rob Mawhinney (Program Director)

Faculty:  
Bioinformatics

Date:  
Sept. 30, 2011

Signature of Dean

I agree to this calendar change proposal      Yes       No

Name:  
David Law (Chair)

Faculty:  
Biology

Date:  
2011-09-30

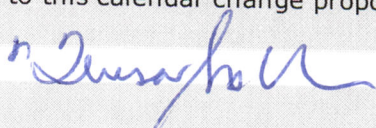
Signature of Dean



I agree to this calendar change proposal

Yes

No



Name:

T. Socha (Chair of Undergraduate Studies) and J. O'Meara (Dean)

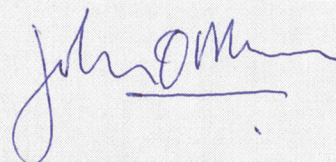
Faculty:

Faculty of Education

Date:

Oct. 12/11

Signature of Dean



I agree to this calendar change proposal

Yes

No

Name:

A.P. Dean (Dean)

Faculty:

Science and Env't. Studies.

Date:

Oct. 13 / 11

Signature of Dean

