

(807) 343-8762

MEMORANDUM

kromito@lakeheadu.ca

Date: December 7, 2011

To: Dr. Andrew P. Dean, Dean Faculty of Science and Environmental Studies

From: Dr. M. Benson, Chair Department of Computer Science

Subject: Calendar changes for Computer Science Co-op work term prerequisites

The attached changes were approved at our Department meeting of December 1, 2011.

M. Benson

approved Faculty Dec 19/11
M. Benson

Request for Calendar Change Form

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

To	Secretary of Senate	
From	Name(Dean):	Faculty
	Dr. Andrew P. Dean	Science And Environmental Studies
	Department the change relates to	
	Computer Science	
	Contact Person	
	Dr. M. Benson	

Is the proposed calendar change Select...

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 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

Section 1
Description of the Proposed Calendar Change: Tidy regulations for academic approval for co-op work terms.
Rationale of the Proposed Calendar Change(s): (Corresponding to Section 2 where required)
1 <input type="checkbox"/> Place regulations for academic approval into descriptions of co-op work term listings instead of between year levels in program listing.
2 <input type="checkbox"/> Change co-op work term descriptions to indicated requirements for academic approval for a co-op work term

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
<p>1</p> <p>Page No. (Print) or URL (Electronic) http://mycoursecalendar.lakeheadu.ca/pg277.html</p> <p>Existing Entry Computer Science Programs Apprenticeship and Internship Options Apprenticeship This option is available for the first year Computer Science Co-op students (as the optional Spring/Summer work term). Computer Science 1990 is offered throughout the year as an entry level work term for Computer Science students and qualified students who wish to gain on-the-job training in Computer Science. Internship This option offers an extended work term (normally 8 months) for senior level students (Fourth or Fifth Year). This is suitable for Computer Science students who wish to gain extensive and in-depth experience in applications of Computer Science. The work terms are made of two or more consecutive work terms Computer Science 3990, 3992 (or 4990), 4992 (Winter, Spring/Summer, Fall). Applications must be made through the Office of Admissions and Recruitment as detailed in the Requirements for Admission to Undergraduate Degree Programs. The application will be carefully examined by the Department and Career and Co-operative Education Services. The acceptance of a student in these options depends highly on the demands from the employers as well as the student's academic qualifications and communication skills.</p> <p>1. Honours BSc (Computer Science) Cooperative Program Students applying for first year admission to Cooperative Computer Science will be judged for admission on the basis of academic credentials normally submitted to the Office of Admissions and Recruitment in the admission process. For more advanced applicants, university academic performance will also be considered. Departmental recommendations for work-term placements will be made in the first week of</p>	<p>Proposed Entry Computer Science Programs Apprenticeship and Internship Options Apprenticeship This option is available for the first year Computer Science Co-op students (as the optional Spring/Summer work term). Computer Science 1990 is offered throughout the year as an entry level work term for Computer Science students and qualified students who wish to gain on-the-job training in Computer Science. Internship This option offers an extended work term (normally 8 months) for senior level students (Fourth or Fifth Year). This is suitable for Computer Science students who wish to gain extensive and in-depth experience in applications of Computer Science. The work terms are made of two or more consecutive work terms Computer Science 3990, 3992 (or 4990), 4992 (Winter, Spring/Summer, Fall). Applications must be made through the Office of Admissions and Recruitment as detailed in the Requirements for Admission to Undergraduate Degree Programs. The application will be carefully examined by the Department and Career and Co-operative Education Services. The acceptance of a student in these options depends highly on the demands from the employers as well as the student's academic qualifications and communication skills.</p> <p>1. Honours BSc (Computer Science) Cooperative Program Students applying for first year admission to Cooperative Computer Science will be judged for admission on the basis of academic credentials normally submitted to the Office of Admissions and Recruitment in the admission process. For more advanced applicants, university academic performance will also be considered. Departmental recommendations for work-term</p>

each academic term which precedes a work term, and will be based on performance in the program to that point. Note that the first work period is optional, but that a student must obtain a positive recommendation from the department by the first required work term to remain registered in the program.

The University will provide employment counselling and contacts with participating employers for each student, prior to each work period, and will make all reasonable effort to obtain placement. However, the achievement of employment is the result of a resumé and interview process similar to that required for permanent employment of computer professionals. The ultimate success in placement depends on the employer/employee interaction.

There are three options in this program, Business, Scientific and Hardware. Students must choose one at the time of initial registration. For help in making this choice, contact the Chair of the Department.

Note:

Students in this program are required to take at least 5 FCEs outside the Departments of Computer Science and Mathematical Sciences.

(a) Business Option

Year-to-year continuation in the program requires an average of at least 70% in all Computer Science courses, and satisfactory completion of the work period assignments.

First Year (Fall and Winter):

(a) Mathematics 1171, 1172, 1271 and 1272; Computer Science 1411, 1431

(b) One FCE elective in Humanities or Social Sciences chosen from: History 1100, Philosophy 1100, or any combination of English 1011, 1031, 1111, 1112

(c) Business 1511, 1512

First Year (Spring/Summer):

At the discretion of the Department, some students may have the opportunity of a formal work period assignment (Computer Science 1990).

Second Year (Fall and Winter):

(a) Mathematics 2255, 2275, 2331, 2333

(b) Computer Science 2412, 2453, 2476 and 2477

(c) Business 2012 and 2033

Note:

Students interested in the Physics selections from the list of electives should take Mathematics 2131 and Physics 2211.

Second Year (Spring/Summer):

Optional formal work period assignment (Computer Science 2990)

placements will be made in the first week of each academic term which precedes a work term, and will be based on performance in the program to that point. Note that the first work period is optional, but that a student must obtain a positive recommendation from the department by the first required work term to remain registered in the program.

The University will provide employment counselling and contacts with participating employers for each student, prior to each work period, and will make all reasonable effort to obtain placement. However, the achievement of employment is the result of a resumé and interview process similar to that required for permanent employment of computer professionals. The ultimate success in placement depends on the employer/employee interaction.

There are three options in this program, Business, Scientific and Hardware. Students must choose one at the time of initial registration. For help in making this choice, contact the Chair of the Department.

Note:

Students in this program are required to take at least 5 FCEs outside the Departments of Computer Science and Mathematical Sciences.

(a) Business Option

Year-to-year continuation in the program requires an average of at least 70% in all Computer Science courses, and satisfactory completion of the work period assignments.

First Year (Fall and Winter):

(a) Mathematics 1171, 1172, 1271 and 1272; Computer Science 1411, 1431

(b) One FCE elective in Humanities or Social Sciences chosen from: History 1100, Philosophy 1100, or any combination of English 1011, 1031, 1111, 1112

(c) Business 1511, 1512

First Year (Spring/Summer):

At the discretion of the Department, some students may have the opportunity of a formal work period assignment (Computer Science 1990).

Second Year (Fall and Winter):

(a) Mathematics 2255, 2275, 2331, 2333

(b) Computer Science 2412, 2453, 2476 and 2477

(c) Business 2012 and 2033

Note:

Students interested in the Physics selections from the list of electives should take Mathematics 2131 and Physics 2211.

Second Year (Spring/Summer):

Optional formal work period assignment

Departmental approval must be obtained at the time of registration (co-operative) by all students at or beyond the third year level.

Third Year (Fall):

(a) Computer Science 3413, 3415, 3473

(b) Business 3213

(c) One half-course elective

Third Year (Winter):

Formal work period assignment (Computer Science 3990)

Third Year (Spring/Summer):

Formal work period assignment (Computer Science 3992)

Fourth Year (Fall and Winter):

(a) Computer Science 4411, 4433 and 4453

(b) Sociology 2455

(c) Business 4253 or 4273

(d) Mathematics 3331

(e) One FCE from List of Program Electives below

(f) Two half-course electives

Fourth Year (Spring/Summer):

Formal work period assignment (Computer Science 4990)

Fifth Year (Fall):

Formal work period assignment (Computer Science 4992)

Fifth Year (Winter):

(a) Computer Science 4413 and either Computer Science 4431 or 4432

(b) Mathematics 3333

(c) One half-course elective from List of Program Electives below

(d) One half-course elective

(b) Science Option

Year-to-year continuation in the program requires an average of at least 70% in all Computer Science courses, and satisfactory completion of the work period assignments.

First Year (Fall and Winter):

(a) Mathematics 1171, 1172, 1271 and 1272; Computer Science 1411, 1431

(b) One FCE elective in Humanities or Social Sciences chosen from: History 1100, Philosophy 1100, or any combination of English 1011, 1031, 1111, 1112

(c) Physics 1101 or an elective (not from Computer Science or Mathematics) approved by the Department

First Year (Spring/Summer):

At the discretion of the Department, some students may have the opportunity of a formal work period assignment (Computer Science 1990).

Second Year (Fall and Winter):

(a) Mathematics 2111, 2255, 2275 and 2331

(b) Computer Science 2412, 2453, 2476 and 2477

(Computer Science 2990)

Third Year (Fall):

(a) Computer Science 3413, 3415, 3473

(b) Business 3213

(c) One half-course elective

Third Year (Winter):

Formal work period assignment (Computer Science 3990)

Third Year (Spring/Summer):

Formal work period assignment (Computer Science 3992)

Fourth Year (Fall and Winter):

(a) Computer Science 4411, 4433 and 4453

(b) Sociology 2455

(c) Business 4253 or 4273

(d) Mathematics 3331

(e) One FCE from List of Program Electives below

(f) Two half-course electives

Fourth Year (Spring/Summer):

Formal work period assignment (Computer Science 4990)

Fifth Year (Fall):

Formal work period assignment (Computer Science 4992)

Fifth Year (Winter):

(a) Computer Science 4413 and either Computer Science 4431 or 4432

(b) Mathematics 3333

(c) One half-course elective from List of Program Electives below

(d) One half-course elective

(b) Science Option

Year-to-year continuation in the program requires an average of at least 70% in all Computer Science courses, and satisfactory completion of the work period assignments.

First Year (Fall and Winter):

(a) Mathematics 1171, 1172, 1271 and 1272; Computer Science 1411, 1431

(b) One FCE elective in Humanities or Social Sciences chosen from: History 1100, Philosophy 1100, or any combination of English 1011, 1031, 1111, 1112

(c) Physics 1101 or an elective (not from Computer Science or Mathematics) approved by the Department

First Year (Spring/Summer):

At the discretion of the Department, some students may have the opportunity of a formal work period assignment (Computer Science 1990).

Second Year (Fall and Winter):

(c) Two half-course electives

Note:

Students interested in the Physics selections from the list of electives should take Mathematics 2131 and Physics 2211.

Science option students interested in expanding their business background may take Business 1511, 1512, or another Business course with permission of the Faculty of Business Administration.

Second Year (Spring/Summer):

Optional formal work period assignment (Computer Science 2990)

Departmental approval must be obtained at the time of registration (co-operative) by all students at or beyond the third year level.

Third Year (Fall):

(a) Computer Science 3413, 3415, 3473

(b) Two half-course electives

Third Year (Winter):

Formal work period assignment (Computer Science 3990)

Third Year (Spring/Summer):

Formal work period assignment (Computer Science 3992)

Fourth Year (Fall and Winter):

(a) Computer Science 4411, 4433 and 4453

(b) Sociology 2455

(c) Mathematics 3371

(d) Three half-courses from List of Program Electives below

(e) Two half-course electives (One of the electives must be Mathematics 2333, if not already taken.)

Fourth Year (Spring/Summer):

Formal work period assignment (Computer Science 4990)

Fifth Year (Fall):

Formal work period assignment (Computer Science 4992)

Fifth Year (Winter):

(a) Computer Science 4413, 4451 and either Computer Science 4431 or 4432

(b) One half-course from List of Program Electives below

(c) One half-course elective

(c) Hardware Option

Year-to-year continuation in the program requires an average of at least 70% in all Computer Science courses, and satisfactory completion of the work period assignments.

First Year (Fall and Winter):

(a) Mathematics 1171 and 1172; Computer Science 1411, 1431; Physics 1101

(b) Mathematics 1271, 1272 or Chemistry 1110, 1130

(c) One FCE elective in Humanities or Social

(a) Mathematics 2111, 2255, 2275 and 2331

(b) Computer Science 2412, 2453, 2476 and 2477

(c) Two half-course electives

Note:

Students interested in the Physics selections from the list of electives should take Mathematics 2131 and Physics 2211.

Science option students interested in expanding their business background may take Business 1511, 1512, or another Business course with permission of the Faculty of Business Administration.

Second Year (Spring/Summer):

Optional formal work period assignment (Computer Science 2990)

Third Year (Fall):

(a) Computer Science 3413, 3415, 3473

(b) Two half-course electives

Third Year (Winter):

Formal work period assignment (Computer Science 3990)

Third Year (Spring/Summer):

Formal work period assignment (Computer Science 3992)

Fourth Year (Fall and Winter):

(a) Computer Science 4411, 4433 and 4453

(b) Sociology 2455

(c) Mathematics 3371

(d) Three half-courses from List of Program Electives below

(e) Two half-course electives (One of the electives must be Mathematics 2333, if not already taken.)

Fourth Year (Spring/Summer):

Formal work period assignment (Computer Science 4990)

Fifth Year (Fall):

Formal work period assignment (Computer Science 4992)

Fifth Year (Winter):

(a) Computer Science 4413, 4451 and either Computer Science 4431 or 4432

(b) One half-course from List of Program Electives below

(c) One half-course elective

(c) Hardware Option

Year-to-year continuation in the program requires an average of at least 70% in all Computer Science courses, and satisfactory completion of the work period assignments.

First Year (Fall and Winter):

Sciences chosen from: History 1100, Philosophy 1100, or any combination of English 1011, 1031, 1111, 1112

First Year (Spring/Summer):

At the discretion of the Department, some students may have the opportunity of a formal work period assignment (Computer Science 1990).

Second Year (Fall and Winter):

(a) Mathematics 2111 and 2131

(b) Computer Science 2412, 2453, 2476 and 2477

(c) Physics 2211, 2311, 2331, 2332

Second Year (Spring/Summer):

Optional formal work period assignment (Computer Science 2990)

Departmental approval must be obtained at the time of registration (co-operative) by all students at or beyond the third year level.

Third Year (Fall):

(a) Mathematics 2255

(b) Computer Science 3415, 3473

(c) Physics 3231

(d) Sociology 2455

Third Year (Winter):

Formal work period assignment (Computer Science 3990)

Third Year (Spring/Summer):

Formal work period assignment (Computer Science 3992)

Fourth Year (Fall):

(a) Computer Science 4411 and a half-course Computer Science elective

(b) Physics 3211 and a half-course Physics elective

(c) One half-course elective

Fourth Year (Winter):

(a) Mathematics 2275

(b) Computer Science 4475 and a half-course Computer Science elective

(c) Physics 3611

(d) One half-course elective

Fourth Year (Spring/Summer):

Formal work period assignment (Computer Science 4990)

Fifth Year (Fall):

Formal work period assignment (Computer Science 4992)

Fifth Year (Winter):

(a) Computer Science 4453 and one half-course Computer Science elective

(b) Physics 3311

(c) Two half-course electives

(a) Mathematics 1171 and 1172; Computer Science 1411, 1431; Physics 1101

(b) Mathematics 1271, 1272 or Chemistry 1110, 1130

(c) One FCE elective in Humanities or Social Sciences chosen from: History 1100, Philosophy 1100, or any combination of English 1011, 1031, 1111, 1112

First Year (Spring/Summer):

At the discretion of the Department, some students may have the opportunity of a formal work period assignment (Computer Science 1990).

Second Year (Fall and Winter):

(a) Mathematics 2111 and 2131

(b) Computer Science 2412, 2453, 2476 and 2477

(c) Physics 2211, 2311, 2331, 2332

Second Year (Spring/Summer):

Optional formal work period assignment

(Computer Science 2990)

Third Year (Fall):

(a) Mathematics 2255

(b) Computer Science 3415, 3473

(c) Physics 3231

(d) Sociology 2455

Third Year (Winter):

Formal work period assignment (Computer Science 3990)

Third Year (Spring/Summer):

Formal work period assignment (Computer Science 3992)

Fourth Year (Fall):

(a) Computer Science 4411 and a half-course Computer Science elective

(b) Physics 3211 and a half-course Physics elective

(c) One half-course elective

Fourth Year (Winter):

(a) Mathematics 2275

(b) Computer Science 4475 and a half-course Computer Science elective

(c) Physics 3611

(d) One half-course elective

Fourth Year (Spring/Summer):

Formal work period assignment (Computer Science 4990)

Fifth Year (Fall):

Formal work period assignment (Computer Science 4992)

Fifth Year (Winter):

(a) Computer Science 4453 and one half-course Computer Science elective

(b) Physics 3311

(c) Two half-course electives

Page No. (Print) or URL (Electronic)
<http://mycoursecalendar.lakeheadu.ca/pg144.html>

Existing Entry		Proposed Entry	
Computer Science 1990 I Credit Weight: 0.5	Co-op Work Term	Computer Science 1990 Credit Weight: 0.5	Co-op Work Term I
Computer Science 2990 II Credit Weight: 0.5	Co-op Work Term	Prerequisite: Departmental recommendation as indicated in the Honours BSc (Computer Science) Cooperative Program.	
Computer Science 3990 III Credit Weight: 0.5	Co-op Work Term	Computer Science 2990 Credit Weight: 0.5	Co-op Work Term II
Computer Science 3992 IV Credit Weight: 0.5	Co-op Work Term	Prerequisite: Departmental recommendation as indicated in the Honours BSc (Computer Science) Cooperative Program.	
Computer Science 4990 V Credit Weight: 0.5	Co-op Work Term	Computer Science 3990 Credit Weight: 0.5	Co-op Work Term III
Computer Science 4992 VI Credit Weight: 0.5	Co-op Work Term	Prerequisite: Departmental recommendation as indicated in the Honours BSc (Computer Science) Cooperative Program.	
		Computer Science 3992 Credit Weight: 0.5	Co-op Work Term IV
		Prerequisite: Departmental recommendation as indicated in the Honours BSc (Computer Science) Cooperative Program.	
		Computer Science 4990 Credit Weight: 0.5	Co-op Work Term V
		Prerequisite: Departmental recommendation as indicated in the Honours BSc (Computer Science) Cooperative Program.	

Computer Science 4992 Co-op Work Term VI
Credit Weight: 0.5

Prerequisite: Departmental recommendation as indicated in the Honours BSc (Computer Science) Cooperative Program.

Section 3

The Faculty(ies) affected by the proposed calendar change

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:

Andrew P. Dean

Faculty:

SES

Date:

Dec. 21/11

Signature of Dean

