



Dean of Science Office

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## MEETING OF THE FACULTY COUNCIL OF THE FACULTY OF SCIENCE

A regular meeting of the Faculty Council of the Faculty of Science will be held on Wednesday, March 21, 2018 at 1 p.m. in C-2045.

### AGENDA

1. **Regrets**
2. **Adoption of the Minutes of December 6, 2017 and January 17, 2018**
3. **Business Arising from the Minutes:** None
4. **Correspondence:** None
5. **Reports of Standing Committees:**
  - A. **Undergraduate Studies Committee:**
    - a. Department of Computer Science, Paper 5.A.a (47 Pages)
      - i) Calendar change to Existing Regulations – 10.4.7 Computer Industry Internship Option (CIIO)
      - ii) Calendar change to Existing Course: Computer Science 2718
      - iii) Calendar change to Existing Courses: Computer Science 2002, 2003 and 3754
      - iv) Calendar change to Existing Course: Engineering 8814/Computer Science 4301
  - B. **Graduate Studies Committee:**
    - a. Department of Computer Science, special topics course, COMP 6919, Sensing with Mobile Devices, approved by the committee and presented to Faculty Council for information only, paper 5.B.a (6 pages)
    - b. Department of Physics and Physical Oceanography, special topics course PHYS 6819, Introduction to Quantum Field Theory, approved by the committee and presented to Faculty Council for information only, paper 5.B.b (6 pages)
    - c. SGS General Regulations 4.8 and 4.10 – Proposed Revisions, paper 5.B.c (7 pages).
  - C. **Nominating Committee:** None
  - D. **Library Committee:** None
6. **Report of Teaching Consultant**
7. **Reports of Delegates from Other Councils**
8. **Report of the Dean**
9. **Question Period**
10. **Adjournment**

A handwritten signature in blue ink that reads "Mary L. Courage".

Mary L. Courage, Ph.D.  
Interim Dean of Science



**Faculty of Science**

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**FACULTY OF SCIENCE  
FACULTY COUNCIL OF SCIENCE  
MINUTES OF MEETING OF DECEMBER 6, 2017**

A meeting of the Faculty Council of the Faculty of Science was held on Wednesday, December 6th, at 1:00 p.m. in room C-2045.

**FSC 2557**

**Present**

**Biochemistry**

Berry, M. Booth, V. Mulligan, M.

**Biology**

Chapman, T. Staveley, B.

**Chemistry**

Fridgen, T.

**Computer Science**

Bungay, S. Tang, J. Vardy, A.

**Earth Sciences**

Hanchar, J. Welford, K.

**Mathematics & Statistics**

Loredo-Osti, J. Merkli, M. Ou, C. Radford, C.  
Sullivan, S.

**Ocean Sciences**

Fletcher, G. Wroblewski, J.

**Physics & Physical Oceanography**

Curnoe, S. Evstigneev, M. Lagowski, J. Plumer, M.

**Psychology**

Neath, I. Thorpe, C.

**Dean of Science Office**

Barac, R. Foss, K. Foster, A. Harding, S. Jackson, G.  
MacKenzie, T.

**CITL**

Todd, A.

**Engineering**

Bazan, C.

**Registrar's Office**

Murray, M.

**Marine Institute**

Caines, S.

**FSC 2558**    **Regrets**  
Catto, N.       Clift, T.       Hillier, L.       Jones, I.       Mantyka, S.  
Poduska, K.

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**FSC 2559**    **Adoption of Minutes**  
**Moved:** Minutes of November 15 2017, meeting be adopted (Sullivan/Foster).  
**Carried.**

**FSC 2560**    **Business Arising:**    None

**FSC 2561**    **Correspondence:**    None

**FSC 2562**    **Reports of Standing Committees:**

**A.    Undergraduate Studies Committee:**

Report presented by Shannon Sullivan, Chair, Undergraduate Studies Committee.

a) i) **Moved:** Department of Biochemistry, calendar change, new dedicated lab courses, new non-lab courses and related changes to B.Sc. programs. (Sullivan/ Booth). **Carried.**

b) i) **Moved:** Department of Chemistry, course change, CHEM 2210 prerequisite change. (Sullivan/Fridgen). **Carried.**

c) i) **Moved:** Department of Mathematics and Statistics, course change, MATH 2130, prerequisite change. (Sullivan/Radford). **Carried.**

ii) **Moved:** Department of Mathematics and Statistics, course change, MATH 4300, description and prerequisite change. (Sullivan/Radford). **Carried.**

iii) **Moved:** Department of Mathematics and Statistics, course change, STAT 1510, prerequisite and related program changes. (Sullivan/Radford). **Carried.**

iv) **Moved:** Department of Mathematics and Statistics, course change, STAT 3410, renumber as STAT 2410. (Sullivan/Radford). **Carried.**

v) **Moved:** Department of Mathematics and Statistics, course change, STAT 2560, prerequisite change. (Sullivan/Radford). **Carried.**

vi) **Moved:** Department of Mathematics and Statistics, program change, Applied Mathematics and Computer Science Joint Major. (Sullivan/Radford). **Carried.**

vii) **Moved:** Department of Mathematics and Statistics, program change, Pure Mathematics Honours-Incorporating STAT 3410/2410 change. (Sullivan/Radford). **Carried.**

d) i) **Moved:** Department of Ocean Sciences, program change, Ocean Sciences Major. (Sullivan/Fletcher). **Carried.**

ii) **Moved:** Department of Ocean Sciences, program change, Ocean Sciences Minor. (Sullivan/Fletcher). **Carried.**

iii) **Moved:** Department of Ocean Sciences, new course, OCSC 499A/B. (Sullivan/Fletcher). **Carried.**

iv) **Moved:** Department of Ocean Sciences, new program, Ocean Sciences Honours. (Sullivan/Fletcher). **One Abstention. Carried.**

v) **Moved:** Department of Ocean Sciences, new course, OCSC 4200. (Sullivan/Fletcher). **Carried.**

vi) **Moved:** Department of Ocean Sciences, new course, OCSC 4300. (Sullivan/Fletcher).

**Amendment to the motion:** The title of the new course, OCSC 4300, be changed to: "Climate Change and Global Marine Fisheries Dynamics" (Fletcher/ Wroblewski). **Amendment Carried.**

**The amended motion was carried.**

e) i) **Moved:** Department of Psychology, course change, PSYC 2100. (Sullivan/Neath). **Carried.**

ii) **Moved:** Department of Psychology, program change, Psychology (Co-operative) and Behavioural Neuroscience (Co-operative). (Sullivan/Neath). **Carried.**

iii) **Moved:** Department of Psychology, program change, Behavioural Neuroscience. (Sullivan/Neath). **Carried.**

f) i) **Moved:** Faculty of Science – course deletions: SC 1000, 1001, 1150 and 1151. (Sullivan/Foster). **Carried.**

ii) **Moved:** Revision of Faculty of Science General Regulations. (Sullivan/Foster). **Carried.**

**B. Graduate Studies Committee:**

Report presented by J.C. LoredO-Osti, Chair, Graduate Studies Committee:

a) **Moved:** Department of Physics and Physical Oceanography, calendar changes, M.Sc. Degree. (LoredO-Osti/Curnoe). **Carried.**

**C. Nominating Committee: None**

**D. Library Committee:**

The library is conducting an online survey to assist with determining the journal subscription needs of various disciplines within the Faculty of Science. Faculty members will be invited to complete the survey, which will ask members to select and rank the most relevant journals for their discipline. Currently, the library tracks the number of times an article is downloaded in a journal, and if it is more expensive to purchase journals versus individual article downloads, they would end the subscription with the journal. The results of this survey will assist the library to make more informed decisions.

**FSC 2563 Report of Teaching Consultant: None**

**FSC 2564 Reports of Delegates from Other Councils: None**

**FSC 2565 Report of the Dean: None**

**FSC 2566 Question Period:**

Any Foster thanked Shannon Sullivan for all the work he completed on the General Regulation calendar changes for the Faculty of Science. This work started several years ago, and was a much needed update.

**FSC 2567 Adjournment**

The meeting adjourned at 2:10 p.m.



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**FACULTY OF SCIENCE  
FACULTY COUNCIL OF SCIENCE  
MINUTES OF MEETING OF JANUARY 17, 2017**

A meeting of the Faculty Council of the Faculty of Science was held on Wednesday, January 17th, at 1:00 p.m. in room C-2045.

**FSC 2568**

**Present**

**Biochemistry**

Berry, M. Mulligan, M.

**Biology**

Jones, I. Staveley, B.

**Chemistry**

Bottaro, C. Flinn, C. Kerton, F.

**Computer Science**

Bungay, S.

**Earth Sciences**

Hanchar, J.

**Mathematics & Statistics**

Loredo-Osti, J. Pike, D. Sullivan, S.

**Ocean Sciences**

Fletcher, G.

**Physics & Physical Oceanography**

Lagowski, J. Morrow, M.

**Psychology**

Neath, I.

**Dean of Science Office**

Barac, R. Foss, K. Foster, A. Harding, S. Jackson, G.  
MacKenzie, T. Zedel, L.

**CITL**  
Todd, A.

**Marine Institute**  
Caines, S.

**Graduate Students**  
Adekinle, A.

**Faculty of Medicine**  
Kendall, E.

**FSC 2569**     **Regrets**  
Fang, C.         Mantyka, S.

**FSC 2570**     **Adoption of Minutes**  
The minutes of December 6, 2017 were not attached to the Faculty Council Agenda, so the adoption of the minutes will occur at the next faculty council meeting.

**FSC 2571**     **Business Arising:** None

**FSC 2572**     **Correspondence:** None

**FSC 2573**     **Reports of Standing Committees:**

**A.     Undergraduate Studies Committee:** None

**B.     Graduate Studies Committee:**  
Report presented by J.C. Loredo-Osti, Chair, Graduate Studies Committee:

- a) **Moved:** Department of Biochemistry, course proposal and calendar entry, BIOC 7000, Graduate Skills Course (Loredo-Osti/Berry).  
**Carried.**
- b) J.C. Loredo-Osti, Chair, Graduate Studies Committee, presented the special topics course for Ocean Science, OCSC 7500, Immunology and Diseases of Aquatic Organisms, for information purposes only.
- c) J.C. Loredo-Osti, Chair, Graduate Studies Committee, presented the special topics course for Physics and Physical Oceanography, PHYS 6366, Analysis of Data from Autonomous Underwater Vehicles, for information purposes only.
- d) J.C. Loredo-Osti, Chair, Graduate Studies Committee, presented the special topics course for Physics and Physical Oceanography, PHYS 6014, Understanding Nuclear Magnetic Resonance, for information purposes only.

**C. Nominating Committee: None**

**D. Library Committee: None**

**FSC 2574 Report of Teaching Consultant:**

The Brown Bag sessions have started again for the Winter 2018 semester and the first session is on “Writing Courses in Sciences”, which takes place on Monday, January 22, 2018. Also, the awards season is starting and the call for the Dean of Science Distinguished Teacher Award is coming soon. The nomination deadline is February 16, 2018.

**FSC 2575 Reports of Delegates from Other Councils: None**

**FSC 2576 Report of the Dean:**

Dr. Courage informed Faculty Council members that there would be an additional \$6 million dollar University budget shortfall for the current fiscal year. In late November, the University was notified that a special payment to the pension fund that is normally paid by the Province will now have to be paid by Memorial. To date, it is not known how the University will deal with this shortfall or how it will affect individual faculties. The Integrated Planning Committee (IPC) consultation with the Faculty of Science took place on Monday, January 15<sup>th</sup> to seek feedback and advice on how to find savings for the budget cuts.

**FSC 2577 Question Period:**

There was some discussion regarding the additional budget shortfall, with three main themes evident:

1. The University’s autonomy is linked to its financial control, and it is losing its autonomy as a result of the budget cuts. Tuition should be raised and the University needs to make a stronger and more vigorous case for this to the government.
2. The University should develop a strong and articulate public relations campaign for the general public and the government that would focus on student success and that highlights the important role that the University plays in education, research, and the provincial economy.
3. As we had very short notice for the consultation, the Faculty of Science should request a follow up meeting with the Integrated Planning Committee. Alternatively, the Faculty of Science should host its own session to discuss the budget and invite the IPC members to attend.

**FSC 2578 Adjournment**

The meeting adjourned at 1:35 p.m.





Office of the Registrar

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**February 12, 2018**

**TO:** All Members of Faculty Council, Faculty of Science

**FROM:** Maria Murray, Secretary, Committee on Undergraduate Studies  
Faculty of Science

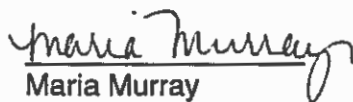
**SUBJECT:** **Proposals for Calendar Changes**

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At a meetings held on January 23, 2018, the Faculty of Science Committee on Undergraduate Studies agreed that the following items should be forwarded to Faculty Council for approval:

**1. Department of Computer Science**

- (a) Calendar Change to Existing Regulations – 10.4.7 Computer Industry Internship Option (CIIO)
- (b) Calendar Change to Existing Course: Computer Science 2718
- (c) Calendar Changes to Existing Courses: Computer Science 2002, 2003 and 3754
- (d) Calendar Change to Existing Course: Engineering 8814/Computer Science 4301

  
Maria Murray



Summary of Calendar Change to Existing Courses  
Department of Computer Science

## SUMMARY PAGE FOR SENATE

### Approval Form

#### Course Number and Title

Section 10.4.7.1, 10.4.7.4, and 10.4.7.5

#### Abbreviated Course Title

N/A

#### Calendar Changes

#### 10.4.7 Computer Industry Internship Option (CIIO):

##### 10.4.7.1 Admission Requirements

In order to be considered for admission to the CIIO, an applicant:

1. must be a declared Computer Science Major;
- 2. must be registered as a full-time student at the time of application;**
- 3. 2. must have successfully completed Computer Science 1000, 1001, 1002, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008 and 6 credit hours at the 3000 level;**
- 4. 3. must have at least 15 credit hours remaining after the internship in order to satisfy degree requirements, 3 of which must be in Computer Science; and**
- 5. 4. is expected to return to University as a full-time student after the internship.**

In addition to meeting the above, applicants are admission is also subject to academic performance.

**10.4.7.2 Internship Duration:** *no change*

**10.4.7.3 Internship Guidelines:** *no change*

##### ~~10.4.7.4 Expectation of Work~~

~~Within two weeks of starting the internship, students are required to submit a list of their internship objectives to Co-operative Education. They are also required to submit a report to Co-operative Education due the last day of classes of each semester in which they are working. A progress report is required in semesters where the internship is continuing into the next semester. The progress report need only discuss the activities in that particular semester. A final report is required in the student's final internship semester. The final report must discuss the entire internship. Both reports will include a description of the student's internship projects and activities as well as the student's internship objectives and accomplishments. A completed Employer Evaluation Form should be submitted to Co-operative Education at the end of each semester.~~

Summary of Calendar Change to Existing Courses  
Department of Computer Science

**10.4.7.5 10.4.7.4 Registration, Assessment of Performance, and Assignment of Grades:**  
Students must register for the course Computer Science 3700 every semester during their internship.

Computer Science 3700 is a non-credit course open only to students who have been accepted into the Internship Program.

During the internship, the employer and intern will complete student performance evaluations every four months and will submit them to Co-operative Education. The final assessment of total work performed is the responsibility of Co-operative Education, and will be based upon both input from the employer and the intern's ~~final internship report(s)~~.

The Internship evaluation shall consist of two components:

1. **On-the-job Student Performance:** Job performance shall be assessed by Co-operative Education in consultation with the Department using information gathered during the internship and input from the employer. Evaluation of the on-the-job student performance will result in one of the following classifications: PASS WITH DISTINCTION, PASS, FAIL.
2. ~~The Final Internship Report(s):~~ Evaluation of the ~~final~~ internship report(s) will result in one of the following classifications: PASS WITH DISTINCTION, PASS, FAIL.

The evaluation of the on-the-job student performance and the ~~final~~ internship report(s) are recorded separately on the transcript.

Overall evaluation of the internship will result in one of the following final grades being awarded:

1. **PASS WITH DISTINCTION:** indicates outstanding performance in both the ~~final~~ internship report(s) and the on-the-job student performance. PASS WITH DISTINCTION has been awarded to each of the ~~final~~ internship report(s) and the on-the-job student performance.
2. **PASS:** indicates that performance meets expectations in both the ~~final~~ internship report(s) and on-the-job student performance. The student meets the requirements of a passing mark in the ~~final~~ internship report(s) and on-the-job student performance.
3. **FAIL:** indicates failing performance in either the ~~final~~ internship report(s) or on-the-job student performance or both.

Also, the following will be noted in the transcript of the intern:

1. Requirements for the Computer Industry Internship Option have been completed.  
Internship Duration: - months.
2. A grade of NC (No Credit) for Computer Science 3700 will be awarded in all semesters of the Internship Option prior to the final Semester.

**Summary of Calendar Change to Existing Courses  
Department of Computer Science**

**The succeeding four sections should be re-numbered accordingly.**

**Secondary Calendar Changes**

None.

**Calendar Entry After Changes**

**10.4.7 Computer Industry Internship Option (CIIO):**

**10.4.7.1 Admission Requirements**

In order to be considered for admission to the CIIO, an applicant:

1. must be a declared Computer Science Major;
2. must be registered as a full-time student at the time of application;
3. must have successfully completed Computer Science 1000, 1001, 1002, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008 and 6 credit hours at the 3000 level;
4. must have at least 15 credit hours remaining after the internship in order to satisfy degree requirements, 3 of which must be in Computer Science; and
5. is expected to return to University as a full-time student after the internship.

In addition to the above, admission is also subject to academic performance.

**10.4.7.2 Internship Duration: *no change***

**10.4.7.3 Internship Guidelines: *no change***

**10.4.7.4 Registration, Assessment of Performance, and Assignment of Grades:**

Students must register for the course Computer Science 3700 every semester during their internship.

Computer Science 3700 is a non-credit course open only to students who have been accepted into the Internship Program.

During the internship, the employer and intern will complete student performance evaluations every four months and will submit them to Co-operative Education. The final assessment of total work performed is the responsibility of Co-operative Education, and will be based upon both input from the employer and the intern's report(s).

The Internship evaluation shall consist of two components:

1. **On-the-job Student Performance:** Job performance shall be assessed by Co-operative Education in consultation with the Department using information gathered during the internship and input from the employer. Evaluation of the on-the-job student performance will result in one of the following classifications: PASS WITH DISTINCTION, PASS, FAIL.

**Summary of Calendar Change to Existing Courses  
Department of Computer Science**

- 2. **Internship Report(s):** Evaluation of the internship report(s) will result in one of the following classifications: **PASS WITH DISTINCTION, PASS, FAIL.**

The evaluation of the on-the-job student performance and the internship report(s) are recorded separately on the transcript.

Overall evaluation of the internship will result in one of the following final grades being awarded:

- 1. **PASS WITH DISTINCTION:** indicates outstanding performance in both the internship report(s) and the on-the-job student performance. **PASS WITH DISTINCTION** has been awarded to each of the internship report(s) and the on-the-job student performance.
- 2. **PASS:** indicates that performance meets expectations in both the internship report(s) and on-the-job student performance. The student meets the requirements of a passing mark in the internship report(s) and on-the-job student performance.
- 3. **FAIL:** indicates failing performance in either the internship report(s) or on-the-job student performance or both.

Also, the following will be noted in the transcript of the intern:

- 1. Requirements for the Computer Industry Internship Option have been completed. Internship Duration: - months.
- 2. A grade of NC (No Credit) for Computer Science 3700 will be awarded in all semesters of the Internship Option prior to the final Semester.

**The succeeding four sections should be re-numbered accordingly.**

**Rationale**

The Computer Industry Internship Option (CIIO) has continued to evolve since it started in 1997. The Expectation of Work has changed and the student's evaluation is based on several reports submitted during the Internship rather than one report. As well, the admission requirements will now require applicants to be full-time students at the time of application. This is a national standard for co-operative education and co-operative internship programs.

**Consultations Sought From**

**Comments Received**

Department of Biochemistry	Yes/No
Department of Biology	Yes/No
Department of Chemistry	Yes
Department of Earth Sciences	Yes/No

Summary of Calendar Change to Existing Regulations  
Department of Computer Science

**Consultations Sought From**

**Comments Received**

Department of Economics	Yes/No
Department of Geography	Yes/No
Department of Mathematics and Statistics	Yes
Department of Ocean Sciences	Yes/No
Department of Physics and Physical Oceanography	Yes
Department of Psychology	Yes/No
Faculty of Business Administration	Yes/No
Faculty of Education	Yes
Faculty of Engineering and Applied Science	Yes
Department of Computer and Electrical Engineering	Yes/No
Faculty of Humanities and Social Sciences	Yes/No
Faculty of Medicine	Yes
Faculty of Science	Yes/No
School of Human Kinetics and Recreation	Yes
School of Music	Yes/No
School of Nursing	Yes/No
School of Pharmacy	Yes
School of Social Work	Yes/No
Grenfell Campus	Yes
Marine Institute	Yes

**Library Report Received** Yes

**Signature: Dean, Associate Vice-President (Academic) or Vice-President**

Name \_\_\_\_\_

**FOR OFFICE USE ONLY**

**APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES**

Chair: \_\_\_\_\_

Secretary: \_\_\_\_\_

Date: \_\_\_\_\_





Summary of Calendar Change to Existing Courses  
Department of Computer Science

**SUMMARY PAGE FOR SENATE**

**Approval Form**

**Course Number and Title**

2718 Development Tools, Work Flows and Concepts

**Abbreviated Course Title**

Dev Tools, Work Flows & Cncpt

**Calendar Change**

**2718 Development Tools, Work Flows and Concepts** covers tools, work flows and concepts used in software development in a concentrated introductory set of topics. The essential work flows (with their underlying concepts) used to edit, build, test, combine with existing software and find existing software are introduced. The tools covered include text editors, programming language translators, file management tools, debuggers, scripting tools, source control tools, and building, testing and deployment tools. The architecture and use of an Integrated Development Environment are discussed.

LH: 3

PR: COMP 2500 or COMP 2510 or COMP 2710 or COMP 2001

**Secondary Calendar Changes**

None.

**Calendar Entry After Changes**

**2718 Development Tools, Work Flows and Concepts** covers tools, work flows and concepts used in software development in a concentrated introductory set of topics. The essential work flows (with their underlying concepts) used to edit, build, test, combine with existing software and find existing software are introduced. The tools covered include text editors, programming language translators, file management tools, debuggers, scripting tools, source control tools, and building, testing and deployment tools. The architecture and use of an Integrated Development Environment are discussed.

LH: 3

PR: COMP 2500 or COMP 2510 or COMP 2710 or COMP 2001

**Summary of Calendar Change to Existing Courses  
Department of Computer Science**

**Rationale**

With the introduction of the new Computer Science undergraduate curriculum in Fall 2016, adjustments will be required to the prerequisites for elective courses. The current prerequisites for COMP 2718 do not include courses from the new curriculum. To allow students in the new curriculum to complete COMP 2718, the new course COMP 2001 should be added to the list of potential prerequisites.

**Consultations Sought From**

**Comments Received**

Department of Biochemistry	Yes/No
Department of Biology	Yes/No
Department of Chemistry	Yes
Department of Earth Sciences	Yes/No
Department of Economics	Yes/No
Department of Geography	Yes/No
Department of Mathematics and Statistics	Yes
Department of Ocean Sciences	Yes/No
Department of Physics and Physical Oceanography	Yes
Department of Psychology	Yes/No
Faculty of Business Administration	Yes/No
Faculty of Education	Yes
Faculty of Engineering and Applied Science	Yes
Department of Computer and Electrical Engineering	Yes/No
Faculty of Humanities and Social Sciences	Yes/No
Faculty of Medicine	Yes
Faculty of Science	Yes/No
School of Human Kinetics and Recreation	Yes
School of Music	Yes/No
School of Nursing	Yes/No
School of Pharmacy	Yes
School of Social Work	Yes/No
Grenfell Campus	Yes
Marine Institute	Yes/No

**Library Report Received**

Yes

**Signature: Dean, Associate Vice-President (Academic) or Vice-President**

Name

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Summary of Calendar Change to Existing Courses  
Department of Computer Science

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**FOR OFFICE USE ONLY**

**APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES**

Chair: \_\_\_\_\_

Secretary: \_\_\_\_\_

Date: \_\_\_\_\_

# Proposal Calendar Change to Existing Courses

## Executive Summary

With the introduction of the new Computer Science undergraduate curriculum in Fall 2016, students are no longer required to complete MATH 2320 for the major in Computer Science. This requirement has been replaced by COMP 1002, which has a uni-directional credit restriction with MATH 2320 (students who have completed MATH 2320 cannot obtain subsequent credit for COMP 1002). However, in joint programs, the COMP 1002 requirement is replaced by MATH 2320. Two courses in the new Computer Science program (COMP 2002 and COMP 2003) have COMP 1002 as a prerequisite. For both of those courses, MATH 2320 is a sufficient prerequisite in place of COMP 1002. To accommodate students in joint programs who will have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the COMP 1002 prerequisite allowing students to register for those courses with MATH 2320 instead of COMP 1002. This prerequisite change will affect a third Computer Science course, COMP 3754.

## Resource Implications: Instructional Costs

None.

## Consultations

Distributed to the Faculties of Business Administration, Education, Engineering and Applied Science, Humanities and Social Sciences, Medicine, Science, Schools of Human Kinetics and Recreation, Music, Nursing, Pharmacy, Social Work, Grenfell Campus, and Marine Institute.

## Library Holdings and/or Other Resources Required

To be requested.

The costs, if any, associated with this change/these changes can be met from within the existing budget allocation or authorized new funding for the Department of Computer Science.

Signature of Unit Head (if appropriate): 

Date: Nov 20, 2017

Signature of Dean/Associate Vice-President (Academic)/Vice-President:  
\_\_\_\_\_

Date:  
\_\_\_\_\_

Summary of Calendar Change to Existing Courses  
Department of Computer Science

**SUMMARY PAGE FOR SENATE**

**Approval Form**

**Course Number and Title**

2002 Data Structures and Algorithms

**Abbreviated Course Title**

Data Strctrs & Algorithms

**Calendar Change(s)**

**2002 Data Structures and Algorithms** covers fundamental data structures, algorithm design techniques. A problem-driven course, it focuses on computational problem solving from designing an efficient algorithm to implementing it using appropriate data structures.

CR: COMP 2711

LH: 3

PR: COMP 1001, and COMP 1002 or Mathematics 2320

**Secondary Calendar Changes**

None.

**Calendar Entry After Changes**

**2002 Data Structures and Algorithms** covers fundamental data structures, algorithm design techniques. A problem-driven course, it focuses on computational problem solving from designing an efficient algorithm to implementing it using appropriate data structures.

CR: COMP 2711

LH: 3

PR: COMP 1001, and COMP 1002 or Mathematics 2320

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**Course Number and Title**

2003 Computer Architecture

**Abbreviated Course Title**

Computer Architecture

Summary of Calendar Change to Existing Courses  
Department of Computer Science

**Calendar Change(s)**

**2003 Computer Architecture** introduces computer architecture at the digital logic implementation level, at the instruction set level, and at the level where programming languages are translated into the underlying machine instructions.

CR: COMP 3724

LH: 3

PR: COMP 1001, and COMP 1002 or Mathematics 2320

**Secondary Calendar Changes**

None.

**Calendar Entry After Changes**

**2003 Computer Architecture** introduces computer architecture at the digital logic implementation level, at the instruction set level, and at the level where programming languages are translated into the underlying machine instructions.

CR: COMP 3724

LH: 3

PR: COMP 1001, and COMP 1002 or Mathematics 2320

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**Course Number and Title**

3754 Introduction to Information and Intelligent Systems

**Abbreviated Course Title**

Intro Info/Intelligent Systms

**Calendar Change(s)**

**3754 Introduction to Information and Intelligent Systems** introduces students to application areas that are away from usual number-based and text-based processing. Students will learn the basic concepts and become aware of the historical developments and social and ethical issues related to the application areas such as intelligent systems and information management. This exposure will help students to become knowledgeable about managing large volumes of data and dealing with problems that are well defined but whose algorithmic solutions are not feasible or problems that are fuzzily defined.

CR: COMP 2007

**Summary of Calendar Change to Existing Courses  
Department of Computer Science**

LH: 3

PR: COMP 2711 or COMP 2002, and COMP 2742 or COMP 1002 or Mathematics 2320

**Secondary Calendar Changes**

None.

**Calendar Entry After Changes**

**3754 Introduction to Information and Intelligent Systems** introduces students to application areas that are away from usual number-based and text-based processing. Students will learn the basic concepts and become aware of the historical developments and social and ethical issues related to the application areas such as intelligent systems and information management. This exposure will help students to become knowledgeable about managing large volumes of data and dealing with problems that are well defined but whose algorithmic solutions are not feasible or problems that are fuzzily defined.

CR: COMP 2007

LH: 3

PR: COMP 2711 or COMP 2002, and COMP 2742 or COMP 1002 or Mathematics 2320

**Rationale**

With the introduction of the new Computer Science undergraduate curriculum in Fall 2016, students are no longer required to complete MATH 2320 for the major in Computer Science. This requirement has been replaced by COMP 1002, which has a uni-directional credit restriction with MATH 2320 (students who have completed MATH 2320 cannot obtain subsequent credit for COMP 1002). However, in joint programs, the COMP 1002 requirement is replaced by MATH 2320. Two courses in the new Computer Science program (COMP 2002 and COMP 2003) have COMP 1002 as a prerequisite. For both of those courses, MATH 2320 is a sufficient prerequisite in place of COMP 1002. To accommodate students in joint programs who will have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the COMP 1002 prerequisite allowing students to register for those courses with MATH 2320 instead of COMP 1002. This prerequisite change will affect a third Computer Science course, COMP 3754.

**Consultations Sought From**

**Comments Received**

Department of Biochemistry

Yes/No

Department of Biology

Yes/No

Department of Chemistry

Yes

Department of Earth Sciences

Yes/No

Department of Economics

Yes/No

Summary of Calendar Change to Existing Courses  
Department of Computer Science

**Consultations Sought From**

**Comments Received**

Department of Geography	Yes/No
Department of Mathematics and Statistics	Yes
Department of Ocean Sciences	Yes/No
Department of Physics and Physical Oceanography	Yes
Department of Psychology	Yes/No
Faculty of Business Administration	Yes/No
Faculty of Education	Yes
Faculty of Engineering and Applied Science	Yes
Department of Computer and Electrical Engineering	Yes/No
Faculty of Humanities and Social Sciences	Yes/No
Faculty of Medicine	Yes
Faculty of Science	Yes/No
School of Human Kinetics and Recreation	Yes
School of Music	Yes/No
School of Nursing	Yes/No
School of Pharmacy	Yes
School of Social Work	Yes/No
Grenfell Campus	Yes
Marine Institute	Yes

**Library Report Received** Yes

**Signature: Dean, Associate Vice-President (Academic) or Vice-President**

Name \_\_\_\_\_

**FOR OFFICE USE ONLY**

**APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES**

Chair: \_\_\_\_\_

Secretary: \_\_\_\_\_

Date: \_\_\_\_\_





**Department of Computer Science**

St. John's, NL Canada A1B3X5  
Tel: 709 864 8628 Fax: 709 864 2009  
compsci@mun.ca www.mun.ca/computerscience

## **RESPONSES TO CONSULTATION**

1. **Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;**
2. **COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and**
3. **To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the prerequisites for COMP 2002, COMP 2003, COMP 3754.**

Chemistry

**Subject** Re: Calendar Changes for Computer Science Programs  
**From** Travis Fridgen <chemhead@mun.ca>  
**To** <compsci@mun.ca>  
**Cc** Chris Flinn <cgflinn@mun.ca>  
**Date** 2017-10-31 05:53



Hi Minglun,

These changes have no effect on Chemistry programs and we support the changes.

Take care,

Travis

On 30/10/2017 4:05 PM, CS General wrote:

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
- To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the prerequisites for COMP 2002, COMP 2003, COMP 3754.

Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
Department Head

--  
Travis D. Fridgen BSc, BEd, PhD  
Professor and Head  
Department of Chemistry  
Memorial University  
St. John's, NL, A1B 3X7  
[chemhead@mun.ca](mailto:chemhead@mun.ca)  
709-864-3470  
<http://www.chem.mun.ca/zfac/tdf.php?>

**Subject** RE: Calendar Changes for Computer Science Programs  
**From** Collett, Meghan <mcollett@mun.ca>  
**To** compsci@mun.ca <compsci@mun.ca>  
**Date** 2017-11-16 09:20



Hello Dr. Gong,

Thank you very much for the opportunity to provide feedback on these proposals.

These three proposals will not have an impact on the programs in the Faculty of Education.

Thank you,

Meghan

Meghan Collett, B.Sc., M.Sc. | Coordinator of Undergraduate Programs

Faculty of Education  
 Memorial University of Newfoundland  
 St. John's, Newfoundland, Canada A1B 3X8  
 G.A.Hickman Building | Room ED 2020  
 Tel: 709 864-7554 |  
 Fax: 709 864-2623

[www.mun.ca/educ](http://www.mun.ca/educ)

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-----Original Message-----

**From:** CS General [mailto:[compsci@mun.ca](mailto:compsci@mun.ca)]  
**Sent:** Monday, October 30, 2017 4:08 PM  
**To:** Biochemistry Head <[biohead@mun.ca](mailto:biohead@mun.ca)>; Marino, Paul <[pmarino@mun.ca](mailto:pmarino@mun.ca)>; [chemhead@mun.ca](mailto:chemhead@mun.ca);  
[earthscihead@mun.ca](mailto:earthscihead@mun.ca); Locke, Wade <[wlocke@mun.ca](mailto:wlocke@mun.ca)>; [geog@mun.ca](mailto:geog@mun.ca); [math-head@mun.ca](mailto:math-head@mun.ca); Fletcher, Garth  
 <[fletcher@mun.ca](mailto:fletcher@mun.ca)>; [physicshead@mun.ca](mailto:physicshead@mun.ca); [psychology.head@mun.ca](mailto:psychology.head@mun.ca); [licheng@mun.ca](mailto:licheng@mun.ca); Faculty of Humanities  
 and Social Sciences <[hss@mun.ca](mailto:hss@mun.ca)>; Coady, Peggy <[pacoady@mun.ca](mailto:pacoady@mun.ca)>; Collett, Meghan <[mcollett@mun.ca](mailto:mcollett@mun.ca)>;  
[enrconsult@mun.ca](mailto:enrconsult@mun.ca); [lrobinson@grenfell.mun.ca](mailto:lrobinson@grenfell.mun.ca); [ssedean@grenfell.mun.ca](mailto:ssedean@grenfell.mun.ca); [thennessey@grenfell.mun.ca](mailto:thennessey@grenfell.mun.ca);  
 Rohr, Linda <[lerohr@mun.ca](mailto:lerohr@mun.ca)>; [miugconsultations@mi.mun.ca](mailto:miugconsultations@mi.mun.ca); [deanofmedicine@mun.ca](mailto:deanofmedicine@mun.ca); Sutherland, Ian D  
 <[isutherland@mun.ca](mailto:isutherland@mun.ca)>; DeanNurse <[DeanNurse@mun.ca](mailto:DeanNurse@mun.ca)>; [pharminfo@mun.ca](mailto:pharminfo@mun.ca); Dean of Science <[deansci@mun.ca](mailto:deansci@mun.ca)>;  
[adeanugradswk@mun.ca](mailto:adeanugradswk@mun.ca); Cleyle, Susan <[scleyle@mun.ca](mailto:scleyle@mun.ca)>  
**Subject:** Calendar Changes for Computer Science Programs

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
- To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the prerequisites for COMP 2002, COMP 2003, COMP 3754.

Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
 Department Head

--  
Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009  
-----

**Subject** Re: Calendar Changes for Computer Science Programs  
**From** Engineering Consult <engrconsult@mun.ca>  
**To** <compsci@mun.ca>  
**Cc** Andrew Fisher <adfisher@mun.ca>, Howard Heys <hheys@mun.ca>, Jayde Edmunds <edmundsj@mun.ca>  
**Date** 2017-11-15 14:21



Dear Dr. Gong,

Thank you for the opportunity to comment on your proposed changes to the Computer Industry Internship Option and to the courses COMP 2002, 2003, 2718 and 3754.

In its meeting on Wed. Nov. 15, the Committee on Undergraduate Studies of the Faculty of Engineering and Applied Science found that these changes will have no impact on our programs.

Yours sincerely,

---  
Dr. Glyn George, Chair  
Committee on Undergraduate Studies  
Faculty of Engineering and Applied Science  
Memorial University of Newfoundland  
St. John's NL A1B 3X5

On 2017-10-30 16:05, CS General wrote:

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
- To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the prerequisites for COMP 2002, COMP 2003, COMP 3754.

Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
Department Head

Grenfell

**Subject** RE: Calendar Changes for Computer Science Programs  
**From** Hennessey, Todd <THENNESSEY@grenfell.mun.ca>  
**To** compsci@mun.ca <compsci@mun.ca>  
**Date** 2017-11-03 13:46



Thanks for sending this, the School of Fine Arts has no feedback on these proposed changes.

TODD HENNESSEY, PhD (Birmingham) | DEAN

School of Fine Arts  
Grenfell Campus, Memorial University  
Corner Brook, Newfoundland  
709.637.6277  
[www.grenfell.mun.ca](http://www.grenfell.mun.ca)

-----Original Message-----

**From:** CS General [mailto:compsci@mun.ca]  
**Sent:** October 30, 2017 4:05 PM  
**To:** [biohead@mun.ca](mailto:biohead@mun.ca); [pmarino@mun.ca](mailto:pmarino@mun.ca); [chemhead@mun.ca](mailto:chemhead@mun.ca); [earthscihead@mun.ca](mailto:earthscihead@mun.ca); [wlocke@mun.ca](mailto:wlocke@mun.ca); [geog@mun.ca](mailto:geog@mun.ca); [math-head@mun.ca](mailto:math-head@mun.ca); [fletcher@mun.ca](mailto:fletcher@mun.ca); [physicshead@mun.ca](mailto:physicshead@mun.ca); [psychology.head@mun.ca](mailto:psychology.head@mun.ca); [lichenq@mun.ca](mailto:lichenq@mun.ca); [HSS@mun.ca](mailto:HSS@mun.ca); [pacoady@mun.ca](mailto:pacoady@mun.ca); [mcollett@mun.ca](mailto:mcollett@mun.ca); [enqrconsult@mun.ca](mailto:enqrconsult@mun.ca); Robinson, Laura <lrobinson@grenfell.mun.ca>; Dean - School of Science and the Environment <ssedean@grenfell.mun.ca>; Hennessey, Todd <THENNESSEY@grenfell.mun.ca>; [lerohr@mun.ca](mailto:lerohr@mun.ca); [miugconsultations@mi.mun.ca](mailto:miugconsultations@mi.mun.ca); [deanofmedicine@mun.ca](mailto:deanofmedicine@mun.ca); [isutherland@mun.ca](mailto:isutherland@mun.ca); [deanNurse@mun.ca](mailto:deanNurse@mun.ca); [pharminfo@mun.ca](mailto:pharminfo@mun.ca); [deansci@mun.ca](mailto:deansci@mun.ca); [adeanugradswk@mun.ca](mailto:adeanugradswk@mun.ca); [scleyle@mun.ca](mailto:scleyle@mun.ca)  
**Subject:** Calendar Changes for Computer Science Programs

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
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Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
Department Head

--  
Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009

-----  
This electronic communication is governed by the terms and conditions at  
<http://www.grenfell.mun.ca/campus-services/Pages/information-technology-services/electronic-communications-disclaimer.aspx>

HRP

**Subject** Re: Calendar Changes for Computer Science Programs  
**From** Rohr, Linda <lerohr@mun.ca>  
**To** compsci@mun.ca <compsci@mun.ca>  
**Date** 2017-11-06 13:28



Hi,  
 I have reviewed the proposals from Computer Science and have no concerns.  
 Linda

Linda E. Rohr PhD  
 Associate Professor & Associate Dean Undergraduate Studies  
 Human Kinetics and Recreation, Memorial University  
 t: 709.864.6202 f: 709.864.7531 e: lerohr@mun.ca  
 PE 2025

---

**From:** CS General <compsci@mun.ca>  
**Reply-To:** "compsci@mun.ca" <compsci@mun.ca>  
**Date:** Monday, October 30, 2017 at 3:05 PM  
**To:** Biochemistry Head <biohead@mun.ca>, "Marino, Paul" <pmarino@mun.ca>, "chemhead@mun.ca" <chemhead@mun.ca>, "earthscihead@mun.ca" <earthscihead@mun.ca>, "Locke, Wade" <wlocke@mun.ca>, "geog@mun.ca" <geog@mun.ca>, "math-head@mun.ca" <math-head@mun.ca>, "Fletcher, Garth" <fletcher@mun.ca>, "physicshead@mun.ca" <physicshead@mun.ca>, "psychology.head@mun.ca" <psychology.head@mun.ca>, "licheng@mun.ca" <licheng@mun.ca>, Faculty of Humanities and Social Sciences <hss@mun.ca>, "Coady, Peggy" <pacoady@mun.ca>, "Collett, Meghan" <mcollett@mun.ca>, "engrconsult@mun.ca" <engrconsult@mun.ca>, "Irobinson@grenfell.mun.ca" <Irobinson@grenfell.mun.ca>, "ssedean@grenfell.mun.ca" <ssedean@grenfell.mun.ca>, "thennessey@grenfell.mun.ca" <thennessey@grenfell.mun.ca>, Linda Rohr <lerohr@mun.ca>, "miugconsultations@mi.mun.ca" <miugconsultations@mi.mun.ca>, "deanofmedicine@mun.ca" <deanofmedicine@mun.ca>, "Sutherland, Ian D" <isutherland@mun.ca>, DeanNurse <DeanNurse@mun.ca>, "pharminfo@mun.ca" <pharminfo@mun.ca>, Dean of Science <deansci@mun.ca>, adeanugradswk <adeanugradswk@mun.ca>, "Cleyle, Susan" <scleyle@mun.ca>  
**Subject:** Calendar Changes for Computer Science Programs

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
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Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
 Department Head

--

Math

**Subject** RE: Fwd: Calendar Changes for Computer Science Programs  
**From** Math Consult <mathconsult@mun.ca>  
**To** <compsci@mun.ca>  
**Date** 2017-10-31 11:48



Logical proposals.

Tara

**From:** Chris Radford [mailto:cradford@mun.ca]  
**Sent:** October-31-17 11:15 AM  
**To:** mathconsult@mun.ca  
**Subject:** Fwd: Fwd: Calendar Changes for Computer Science Programs

----- Forwarded Message -----

**Subject:**Fwd: Calendar Changes for Computer Science Programs

**Date:**Tue, 31 Oct 2017 09:59:09 -0230

**From:**Math Head <math-head@mun.ca>

**To:**Chris Radford <cradford@mun.ca>

----- Forwarded Message -----

**Subject:**Calendar Changes for Computer Science Programs

**Date:**Mon, 30 Oct 2017 16:05:11 -0230

**From:**CS General <compsci@mun.ca>

**Reply-To:**compsci@mun.ca

**To:**blochead@mun.ca, pmarino@mun.ca, chemhead@mun.ca, earthscihead@mun.ca, wlocke@mun.ca, geog@mun.ca, math-head@mun.ca, fletcher@mun.ca, physicshead@mun.ca, psychology.head@mun.ca, licheng@mun.ca, HSS@mun.ca, pacoady@mun.ca, mcollett@mun.ca, engrconsult@mun.ca, lrobinson@grenfell.mun.ca, ssedean@grenfell.mun.ca, thennessey@grenfell.mun.ca, lerohr@mun.ca, miugconsultations@mi.mun.ca, deanofmedicine@mun.ca, isutherland@mun.ca, deanNurse@mun.ca, pharminfo@mun.ca, deansci@mun.ca, adeanugradswk@mun.ca, scleyle@mun.ca



Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
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Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
Department Head

--

Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009

-----



**Subject** RE: Calendar Changes for Computer Science Programs  
**From** MIUG Consultations <MIUGconsultations@mi.mun.ca>  
**To** compsci@mun.ca <compsci@mun.ca>  
**Date** 2017-11-09 14:36

Dear Minglun,

Thank you for the opportunity to review and comment on the proposals to revise your Computer Industry Internship Option (CIIO), COMP 2718, and to include MATH 2320 as an "OR" prereq to COMP 2002, COMP 2003 and COMP 3754. These revisions will have no impact on Marine Institute programs and we are happy to support them.

Regards,  
Bev

Bev Fleet  
Chair, Undergraduate Studies Committee  
Marine Institute, Memorial University  
TEL: 709-778-0369  
FAX: 709-778-0535  
[Bev.Fleet@mi.mun.ca](mailto:Bev.Fleet@mi.mun.ca)

-----Original Message-----

From: CS General [mailto:[compsci@mun.ca](mailto:compsci@mun.ca)]  
Sent: Monday, October 30, 2017 4:05 PM  
To: [biohead@mun.ca](mailto:biohead@mun.ca); [pmarino@mun.ca](mailto:pmarino@mun.ca); [chemhead@mun.ca](mailto:chemhead@mun.ca); [earthscihead@mun.ca](mailto:earthscihead@mun.ca); [wlocke@mun.ca](mailto:wlocke@mun.ca); [geog@mun.ca](mailto:geog@mun.ca); [math-head@mun.ca](mailto:math-head@mun.ca); [fletcher@mun.ca](mailto:fletcher@mun.ca); [physicshead@mun.ca](mailto:physicshead@mun.ca); [psychology.head@mun.ca](mailto:psychology.head@mun.ca); [licheng@mun.ca](mailto:licheng@mun.ca); [HSS@mun.ca](mailto:HSS@mun.ca); [pacoady@mun.ca](mailto:pacoady@mun.ca); [mcollett@mun.ca](mailto:mcollett@mun.ca); [enrconsult@mun.ca](mailto:enrconsult@mun.ca); [lrobinson@grenfell.mun.ca](mailto:lrobinson@grenfell.mun.ca); [ssdean@grenfell.mun.ca](mailto:ssdean@grenfell.mun.ca); [thennessey@grenfell.mun.ca](mailto:thennessey@grenfell.mun.ca); [lerohr@mun.ca](mailto:lerohr@mun.ca); MIUG Consultations <[MIUGconsultations@mi.mun.ca](mailto:MIUGconsultations@mi.mun.ca)>; [deanofmedicine@mun.ca](mailto:deanofmedicine@mun.ca); [isutherland@mun.ca](mailto:isutherland@mun.ca); [deanNurse@mun.ca](mailto:deanNurse@mun.ca); [pharminfo@mun.ca](mailto:pharminfo@mun.ca); [deansci@mun.ca](mailto:deansci@mun.ca); [adeanugradswk@mun.ca](mailto:adeanugradswk@mun.ca); [scleyle@mun.ca](mailto:scleyle@mun.ca)  
Subject: Calendar Changes for Computer Science Programs

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
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Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
Department Head

--  
Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009  
-----

**Subject** FW: Calendar Changes for Computer Science Programs  
**From** <cvaridy@mun.ca>  
**To** <compsci@mun.ca>  
**Date** 2017-11-08 10:57



- COMP-2320.pdf (~110 KB)
- COMP-2718.pdf (~68 KB)
- COMP-CIIO.pdf (~147 KB)

The Faculty of Medicine is supportive regarding the calendar changes to existing courses and existing regulations as outlined in your proposal.

Regards

Cathy Vardy, MD, FRCPC  
Vice Dean and Professor of Pediatrics  
Faculty of Medicine  
Health Sciences Centre, M2M319  
Memorial University of NL

Tel: 709-864-6417  
Fax: 709-864-6336

-----Original Message-----

From: Steele, Dr. Margaret: Dean of Medicine  
Sent: Monday, October 30, 2017 9:23 PM  
To: Vardy, Cathy <cvaridy@mun.ca>  
Subject: FW: Calendar Changes for Computer Science Programs

Could you please review Cathy  
Thanks margaret

-----Original Message-----

From: CS General [mailto:[compsci@mun.ca](mailto:compsci@mun.ca)]  
Sent: Monday, October 30, 2017 4:07 PM  
To: Steele, Dr. Margaret: Dean of Medicine <[DeanofMedicine@med.mun.ca](mailto:DeanofMedicine@med.mun.ca)>  
Subject: Fwd: Calendar Changes for Computer Science Programs

Resending (correction to email address)

---  
Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009  
-----

----- Original Message -----

Subject: Calendar Changes for Computer Science Programs  
Date: 2017-10-30 16:05  
From: CS General <[compsci@mun.ca](mailto:compsci@mun.ca)>  
To: [biohead@mun.ca](mailto:biohead@mun.ca), [pmarino@mun.ca](mailto:pmarino@mun.ca), [chemhead@mun.ca](mailto:chemhead@mun.ca), [earthscihead@mun.ca](mailto:earthscihead@mun.ca), [wlocke@mun.ca](mailto:wlocke@mun.ca), [geog@mun.ca](mailto:geog@mun.ca),  
[math-head@mun.ca](mailto:math-head@mun.ca), [fletcher@mun.ca](mailto:fletcher@mun.ca), [physicshead@mun.ca](mailto:physicshead@mun.ca), [psychology.head@mun.ca](mailto:psychology.head@mun.ca), [licheng@mun.ca](mailto:licheng@mun.ca),  
[HSS@mun.ca](mailto:HSS@mun.ca), [pacoady@mun.ca](mailto:pacoady@mun.ca), [mcollett@mun.ca](mailto:mcollett@mun.ca), [enqrconsult@mun.ca](mailto:enqrconsult@mun.ca), [lrobinson@grenfell.mun.ca](mailto:lrobinson@grenfell.mun.ca),  
[ssedean@grenfell.mun.ca](mailto:ssedean@grenfell.mun.ca), [thennessey@grenfell.mun.ca](mailto:thennessey@grenfell.mun.ca), [lerohr@mun.ca](mailto:lerohr@mun.ca), [miugconsultations@mi.mun.ca](mailto:miugconsultations@mi.mun.ca),  
[deanofmedicine@mun.ca](mailto:deanofmedicine@mun.ca), [isutherland@mun.ca](mailto:isutherland@mun.ca), [deanNurse@mun.ca](mailto:deanNurse@mun.ca), [pharminfo@mun.ca](mailto:pharminfo@mun.ca), [deansci@mun.ca](mailto:deansci@mun.ca),  
[adeanugradswk@mun.ca](mailto:adeanugradswk@mun.ca), [scleyle@mun.ca](mailto:scleyle@mun.ca)  
Reply-To: [compsci@mun.ca](mailto:compsci@mun.ca)

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
- To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the prerequisites for COMP 2002, COMP 2003, COMP 3754.

Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
Department Head

--  
Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009  
-----

**Subject** Calendar change  
**From** Phillips, Leslie <lphillip@mun.ca>  
**To** compsci@mun.ca <compsci@mun.ca>  
**Date** 2017-10-31 17:08



Hi Folks,

The School of Pharmacy is not impacted by the proposed calendar changes for Computer Science.

Thanks,  
Leslie

DR. LESLIE PHILLIPS  
ASSOCIATE DEAN UNDERGRADUATE STUDIES  
PROFESSOR | MUN SCHOOL of PHARMACY  
Joint Appointment | MUN FACULTY of MEDICINE/Psychiatry  
Clinical Pharmacotherapy Specialist | EASTERN HEALTH

Health Sciences Centre  
300 Prince Phillip Dr | St. John's, NL | A1B 3V6  
Ph: 709-777-8299  
Fax: 709-777-7044

-----Original Message-----

**From:** CS General [<mailto:compsci@mun.ca>]

**Sent:** October-30-17 4:08 PM

**To:** Biochemistry Head; Marino, Paul; [chemhead@mun.ca](mailto:chemhead@mun.ca); [earthscihead@mun.ca](mailto:earthscihead@mun.ca); Locke, Wade; [geog@mun.ca](mailto:geog@mun.ca); [math-head@mun.ca](mailto:math-head@mun.ca); Fletcher, Garth; [physicshead@mun.ca](mailto:physicshead@mun.ca); [psychology.head@mun.ca](mailto:psychology.head@mun.ca); [lcheng@mun.ca](mailto:lcheng@mun.ca); Faculty of Humanities and Social Sciences; Coady, Peggy; Collett, Meghan; [engrconsult@mun.ca](mailto:engrconsult@mun.ca); [lrobinson@grenfell.mun.ca](mailto:lrobinson@grenfell.mun.ca); [ssedean@grenfell.mun.ca](mailto:ssedean@grenfell.mun.ca); [thennessey@qre](mailto:thennessey@qre); Rohr, Linda; [miugconsultations@mi.mun.ca](mailto:miugconsultations@mi.mun.ca); [deanofmedicine@mun.ca](mailto:deanofmedicine@mun.ca); Sutherland, Ian D; DeanNurse; [pharminfo@mun.ca](mailto:pharminfo@mun.ca); Dean of Science; adeanugradswk; Cleyle, Susan

**Subject:** Calendar Changes for Computer Science Programs

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
  
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
  
- To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the prerequisites for COMP 2002, COMP 2003, COMP 3754.

Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong

Department Head

--

Department of Computer Science

Memorial University of Newfoundland

St. John's, NL A1B 3X5

Phone: (709) 864-8652

Fax: (709) 864-2009

Physics

**Subject** Re: Calendar Changes for Computer Science Programs  
**From** Ivan Saika-Voivod <saika@mun.ca>  
**To** CS General <compsci@mun.ca>  
**Cc** rgouldng Goulding <rgoulding@mun.ca>, Physics Head <physicshead@mun.ca>  
**Date** 2017-10-31 11:39



Dear Minglun,

Thank you for the opportunity to provide feedback on these three proposals:

- Computer Industry Internship Option (CIIO)
- COMP 2718 prerequisites
- MATH 2320 as a prerequisite for COMP 2002, COMP 2003, COMP 3754.

The Department of Physics and Physical Oceanography is supportive of all of them.

Best regards,  
Ivan

Ivan Saika-Voivod, Associate Professor  
Chair, Undergraduate Studies Committee  
Department of Physics and Physical Oceanography, Memorial University of Newfoundland  
St. John's, NL, Canada, A1B 3X7  
Phone: (709) 864-8886 Fax: (709) 864-8739 Room C3026

On 2017-10-30, at 4:35 PM, Physics Head wrote:

Hi Ivan and Rick,  
Looks like housecleaning for CS. I have no problems with these changes.  
Jolanta

On 2017-10-30, 4:05 PM, "CS General" <compsci@mun.ca> wrote:

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
- To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an  $^3$ or $^2$  clause will be added to the prerequisites

Enclosed are the proposals for these Calendar Changes to Existing  
Courses for your review. We would appreciate receiving any comments by  
November 27, 2017.

Regards,

Minglun Gong  
Department Head

--

Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009

-----

<COMP-2320.pdf> <COMP-2718.pdf> <COMP-CIIO.pdf>



Library

**Subject** RE: Calendar Changes for Computer Science Programs  
**From** Ambi, Allison <aambi@mun.ca>  
**To** compsci@mun.ca <compsci@mun.ca>  
**Date** 2017-10-31 09:50



Hello Minglun,  
The proposed calendar changes will have no impact on library resources.  
Alison

Alison Ambi  
709 864 7125  
Interim Head, Collections

Subject Librarian:  
Earth Sciences  
Computer Science  
Mathematics and Statistics  
Physics and Physical Oceanography  
Psychology

QEII Library  
Memorial University of Newfoundland  
[www.library.mun.ca](http://www.library.mun.ca)

-----Original Message-----

**From:** Cleyle, Susan  
**Sent:** October-31-17 9:22 AM  
**To:** Ambi, Alison <aambi@mun.ca>; Pitcher-March, Jackie <jpmarch@mun.ca>  
**Subject:** FW: Calendar Changes for Computer Science Programs

-----Original Message-----

**From:** CS General [mailto:[compsci@mun.ca](mailto:compsci@mun.ca)]  
**Sent:** Monday, October 30, 2017 4:08 PM  
**To:** Biochemistry Head <[biohead@mun.ca](mailto:biohead@mun.ca)>; Marino, Paul <[pmarino@mun.ca](mailto:pmarino@mun.ca)>; chemhead@mun.ca;  
[earthscihead@mun.ca](mailto:earthscihead@mun.ca); Locke, Wade <[wlocke@mun.ca](mailto:wlocke@mun.ca)>; geog@mun.ca; math-head@mun.ca; Fletcher, Garth  
<[fletcher@mun.ca](mailto:fletcher@mun.ca)>; physicshead@mun.ca; psychology.head@mun.ca; licheng@mun.ca; Faculty of Humanities  
and Social Sciences <[hss@mun.ca](mailto:hss@mun.ca)>; Coady, Peggy <[pacoady@mun.ca](mailto:pacoady@mun.ca)>; Collett, Meghan <[mcollett@mun.ca](mailto:mcollett@mun.ca)>;  
[enrconsult@mun.ca](mailto:enrconsult@mun.ca); lrobinson@grenfell.mun.ca; ssedean@grenfell.mun.ca; thennessey@grenfell.mun.ca;  
Rohr, Linda <[lerohr@mun.ca](mailto:lerohr@mun.ca)>; miugconsultations@mi.mun.ca; deanofmedicine@mun.ca; Sutherland, Ian D  
<[isutherland@mun.ca](mailto:isutherland@mun.ca)>; DeanNurse <[DeanNurse@mun.ca](mailto:DeanNurse@mun.ca)>; pharminfo@mun.ca; Dean of Science <[deansci@mun.ca](mailto:deansci@mun.ca)>;  
adeanugradswk <[adeanugradswk@mun.ca](mailto:adeanugradswk@mun.ca)>; Cleyle, Susan <[scleyle@mun.ca](mailto:scleyle@mun.ca)>  
**Subject:** Calendar Changes for Computer Science Programs

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
- To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the prerequisites for COMP 2002, COMP 2003, COMP 3754.

Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
Department Head

--

Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009  
-----

*Original Request*

**roundcube**  
open source webmail software



**Subject** Calendar Changes for Computer Science Programs  
**From** CS General <compsci@mun.ca>  
**To** <biohead@mun.ca>, <pmarino@mun.ca>, <chemhead@mun.ca>, <earthscihead@mun.ca>, <wlocke@mun.ca>, <geog@mun.ca>, <math-head@mun.ca>, <fletcher@mun.ca>, <physicshead@mun.ca>, <psychology.head@mun.ca> <biohead@mun.ca>, <pmarino@mun.ca>, <chemhead@mun.ca>, <earthscihead@mun.ca>, <wlocke@mun.ca>, <geog@mun.ca>, <math-head@mun.ca>, <fletcher@mun.ca>, <physicshead@mun.ca>, <psychology.head@mun.ca>, <llicheng@mun.ca>, <HSS@mun.ca>, <pacoady@mun.ca>, <mcollett@mun.ca>, <engrconsult@mun.ca>, <lrobinson@grenfell.mun.ca>, <ssedean@grenfell.mun.ca>, <thennessey@grenfell.mun.ca>, <ferohr@mun.ca>, <mlugconsultations@ml.mun.ca>, <deanofmedicine@mun.ca>, <lsutherland@mun.ca>, <deanNurse@mun.ca>, <pharminfo@mun.ca>, <deansci@mun.ca>, <adeanugradswk@mun.ca>, <scleyle@mun.ca>  
**Reply-To** <compsci@mun.ca>  
**Reply-To** <compsci@mun.ca>  
**Date** 2017-10-30 16:05

- COMP-2320.pdf (~110 KB)
- COMP-2718.pdf (~68 KB)
- COMP-CIIO.pdf (~147 KB)

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;
- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and
- To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the prerequisites for COMP 2002, COMP 2003, COMP 3754.

Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
Department Head

--  
Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009  
-----

**Subject** Fwd: Calendar Changes for Computer Science Programs  
**From** CS General <compsci@mun.ca>  
**To** <deanofmedicine@med.mun.ca>  
**Reply-To** <compsci@mun.ca>  
**Reply-To** <compsci@mun.ca>  
**Date** 2017-10-30 16:07



- COMP-2320.pdf (~110 KB)
- COMP-2718.pdf (~68 KB)
- COMP-CIIO.pdf (~147 KB)

Resending (correction to email address)

-----  
Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009  
-----

----- Original Message -----

**Subject:** Calendar Changes for Computer Science Programs

**Date:** 2017-10-30 16:05

**From:** CS General <compsci@mun.ca>

**To:** [biohead@mun.ca](mailto:biohead@mun.ca), [pmarino@mun.ca](mailto:pmarino@mun.ca), [chemhead@mun.ca](mailto:chemhead@mun.ca), [earthscihead@mun.ca](mailto:earthscihead@mun.ca), [wlocke@mun.ca](mailto:wlocke@mun.ca), [geoq@mun.ca](mailto:geoq@mun.ca), [math-head@mun.ca](mailto:math-head@mun.ca), [fletcher@mun.ca](mailto:fletcher@mun.ca), [physicshead@mun.ca](mailto:physicshead@mun.ca), [psychology.head@mun.ca](mailto:psychology.head@mun.ca), [licheng@mun.ca](mailto:licheng@mun.ca), [HSS@mun.ca](mailto:HSS@mun.ca), [pacoady@mun.ca](mailto:pacoady@mun.ca), [mcollett@mun.ca](mailto:mcollett@mun.ca), [enqrconsult@mun.ca](mailto:enqrconsult@mun.ca), [lrobinson@grenfell.mun.ca](mailto:lrobinson@grenfell.mun.ca), [ssedean@grenfell.mun.ca](mailto:ssedean@grenfell.mun.ca), [thennessey@grenfell.mun.ca](mailto:thennessey@grenfell.mun.ca), [lerohr@mun.ca](mailto:lerohr@mun.ca), [miugconsultations@mi.mun.ca](mailto:miugconsultations@mi.mun.ca), [deanofmedicine@mun.ca](mailto:deanofmedicine@mun.ca), [isutherland@mun.ca](mailto:isutherland@mun.ca), [deanNurse@mun.ca](mailto:deanNurse@mun.ca), [pharminfo@mun.ca](mailto:pharminfo@mun.ca), [deansci@mun.ca](mailto:deansci@mun.ca), [adeanugradswk@mun.ca](mailto:adeanugradswk@mun.ca), [scleyle@mun.ca](mailto:scleyle@mun.ca)

**Reply-To:** [compsci@mun.ca](mailto:compsci@mun.ca)

Hello,

The Department of Computer Science is proposing calendar changes for:

- Computer Industry Internship Option (CIIO) to reduce the number of reports submitted by students, and that applicants be full-time students at the time of application;

- COMP 2718 to include an additional prerequisite course (one of the new courses from the new program which began in Fall 2016); and

- To accommodate students in joint programs who have completed MATH 2320 instead of COMP 1002, an "or" clause will be added to the prerequisites for COMP 2002, COMP 2003, COMP 3754.

Enclosed are the proposals for these Calendar Changes to Existing Courses for your review. We would appreciate receiving any comments by November 27, 2017.

Regards,

Minglun Gong  
Department Head

--  
Department of Computer Science  
Memorial University of Newfoundland  
St. John's, NL A1B 3X5  
Phone: (709) 864-8652  
Fax: (709) 864-2009  
-----

# Proposal Calendar Change to Existing Course ENGI 8814 / COMP 4301 Computer Vision

## Executive Summary

This is a proposal to add a lab component to this cross-listed course. The proposal is to include six labs, 3 hours each, to give students hands on training using computer vision tools. The proposal is a reflection of the already existing practice of giving students unofficial labs outside the lectures.

## Resource Implications: Instructional Costs

This course is offered in common classes with the graduate course ENGI 9805. Similar changes are proposed for ENGI 9805. No extra instructional costs will be incurred. The instructor is already giving labs to students as an optional help. The labs are conducted in the general lab EN 3000. The software used is Matlab which is already installed on the computers in the lab.

## Consultations

Evidence of consultation (for the ENGI 8814 course) begins on page 2.

## Library Holdings and/or Other Resources Required

The Library report is below.

The costs, if any, associated with these changes can be met from within the existing budget allocation or authorized new funding for the Department of Electrical and Computer Engineering in the Faculty of Engineering and Applied Science, which currently offers this course.

Signature of the Head of the Department of

Electrical and Computer  
Engineering:

\_\_\_\_\_

Date: \_\_\_\_\_

Computer Science



Date: Nov 20, 2017

Signature of the Dean of the Faculty of

Engineering and  
Applied Science

\_\_\_\_\_

Date: \_\_\_\_\_

Science

\_\_\_\_\_

Date: \_\_\_\_\_

ENGI 8814 / COMP 4301

Evidence of Consultation (original proposal for ENGI 8814)

E-mail sent 2017 June 26

From: Engineering Consult [mailto:enrconsult@mun.ca]  
Sent: Monday, June 26, 2017 11:28 AM  
To: Business Administration, Consultations <fba.ad.undergrad@mun.ca>;  
Hickey, Ruth B. <rbhickey@mun.ca>; Dean of Science <deansci@mun.ca>;  
Hicks, Sue <shicks@mun.ca>; Mellor, Judith <jmellor@mun.ca>; Grenfell,  
Campus <associatevpoffice@grenfell.mun.ca>; Hickey, Marie  
<mehickey@mun.ca>; HSS, Consultations <staceym@mun.ca>; Marine,  
Institute <miugconsultations@mi.mun.ca>; Medicine\_1 <cvardy@mun.ca>;  
Medicine\_2 <Sherry.caines@med.mun.ca>; Volk, Maureen <mvolk@mun.ca>;  
DeanNurse <DeanNurse@mun.ca>; Pharmacy, School of <pharminfo@mun.ca>;  
adeanugradswk <adeanugradswk@mun.ca>; Library Correspondence  
<univlib@mun.ca>  
Cc: Fisher, Andrew <adfisher@mun.ca>; Edmunds, Jayde  
<edmundsj@mun.ca>; Morgenstern, Marion <mmorgenstern@mun.ca>; Dennis  
Peters <dpeters@mun.ca>; Bruce, Regina <rbruce@mun.ca>; Taylor-  
Harding, Dianne <dtaylor@mun.ca>  
Subject: ENGI 8814 Consultation Request

The Department of Electrical and Computer Engineering in the Faculty of Engineering and Applied Science proposes a minor change to add six laboratory sessions to the existing elective course ENGI 8814 "Computer Vision". The proposal is attached.

We would appreciate receipt by August 09 of any comments that you may have on this proposal.

Yours sincerely,

--

Dr. Glyn George, Chair  
Committee on Undergraduate Studies  
Faculty of Engineering and Applied Science  
Memorial University of Newfoundland  
St. John's NL A1B 3X5

---

ENGI 8814 / COMP 4301

**Replies**

From the Calendar Editor (Office of the Registrar), 2017 June 27

From Bruce, Regina <rbruce@mun.ca>  
To Engineering Consult <enrconsult@mun.ca> ...  
Date Tue 09:17

Hi:

I am ok with this proposal My only thought is that, while I do see the importance of the lab component, with the heavy load that your students already have, is it possible that this course with be avoided with an added lab component?

Regard, Regina

Reply:

Some of the existing technical elective courses in Academic Term 8 also have laboratory components. Students in their final semester often choose technical electives based on career interest rather than quantity of contact time (lectures + labs). This Calendar change makes existing practice official. No change in enrolment due to this Calendar change is expected.

---

From the School of Nursing, 2017 June 27

Subject FW: ENGI 8814 Consultation Request  
From Gaudine, Alice <agaudine@mun.ca>  
To enrconsult@mun.ca <enrconsult@mun.ca>  
Date Tue 13:00

Hello,

I have no comments.

Alice

Alice Gaudine, PhD, RN  
Dean and Professor, School of Nursing  
Memorial University of Newfoundland  
St. John's, NL A1B 3V6

---

ENGI 8814 / COMP 4301

From the Faculty of Education, 2017 June 27

Subject Re: ENGI 8814 Consultation Request  
From Blake, Hayward <hblake@mun.ca>  
To engrconsult@mun.ca <engrconsult@mun.ca>  
Date Tue 14:48

To whom it may concern,

On behalf of the Faculty of Education, I have reviewed the rationale from the The Department of Electrical and Computer Engineering in the Faculty of Engineering and Applied Science and its proposal for a minor change to add six laboratory sessions to the existing elective course ENGI 8814 "Computer Vision". We support the rationale to do so.

Hayward

Hayward Blake  
Coordinator - Field Services and Admissions  
Faculty of Education

---

From the Faculty of Medicine, 2017 June 28

Subject RE: ENGI 8814 Consultation Request  
From cvaridy@mun.ca  
To engrconsult@mun.ca  
Date Today 12:32

Dear Dr. Glyn

The Faculty of Medicine supports the changes as outlined in your report.

Sincerely,

Cathy Vardy

Cathy Vardy, MD, FRCP(C)  
Vice Dean  
Faculty of Medicine

---



ENGI 8814 / COMP 4301

From the School of Pharmacy, 2017 June 28

Subject FW: ENGI 8814 Consultation Request  
From Phillips, Leslie <lphillip@mun.ca>  
To Engineering <enrconsult@mun.ca>  
Date Wed 16:54

Pharmacy has no concerns regarding the ENGI 8814 request.

Thanks,  
Leslie

DR. LESLIE PHILLIPS  
ASSOCIATE DEAN UNDERGRADUATE STUDIES  
PROFESSOR | MUN SCHOOL of PHARMACY

---

From the Faculty of Business Administration, 2017 June 30

Subject Re: ENGI 8814 Consultation Request  
From Associate Dean of Under Graduate Faculty of Business  
Administration <adundgradfba@mun.ca>  
To Engineering Consultations <enrconsult@mun.ca>  
Date Today 08:59

Hello:

Thank you for the opportunity to comment on this proposal. The Faculty  
of Business Administration has no concerns with the proposed changes.

--larry

---

ENGI 8814 / COMP 4301

From the Marine Institute, 2017 August 18

Subject RE: ENGI 8814 Consultation Request  
From MIUG Consultations <MIUGconsultations@mi.mun.ca>  
Sender Dawn King <Dawn.King@mi.mun.ca>  
To Engineering Consult <enrconsult@mun.ca>  
Date Fri 13:39

Glyn,

Apologies for the late reply and thank you for the opportunity to review and respond to the proposed change to the course ENGI 8814 Computer Vision.

This change will have no impact on the programs at the Marine Institute. We are happy to support these changes as presented.

All the best.

Derek Howse

Derek Howse  
Chair, Undergraduate Studies Committee  
Marine Institute, Memorial University

---

Library Report, received 2017 July 30

Subject RE: ENGI 8814 Consultation Request  
From Taylor-Harding, Dianne <dtaylor@mun.ca>Add contact  
To 'Engineering Consult' <enrconsult@mun.ca>Add contact  
Cc Ambi, Alison <aambi@mun.ca>Add contact  
Date Sun 15:28

Upon review of the proposed calendar description for course ENGI8814 Computer Vision, I have determined that the change will have no impact on the collections activities of the Memorial University Libraries. The Memorial University Libraries hold Research levels collections in Computer Vision; no additional library materials will be required to support this revised course.

Regards,  
Dianne Taylor-Harding,  
Collections Librarian for Reference,  
Queen Elizabeth II Library,  
Memorial University of Newfoundland

**ENGI 8814 / COMP 4301**

**[Library report here]**

**[Library report here]**

**SUMMARY PAGE FOR SENATE**

**Approval Form**

**Course Number and Title**            **ENGI 8814 / COMP 4301 Computer Vision**

**Abbreviated Course Title**        **Computer Vision**

**Calendar Changes**

On page 158 of the 2017-18 edition of the Calendar,

**ENGI 8814 Computer Vision** (same as Computer Science 4301) studies how to develop methods that enable a machine to "understand" or analyze images. The course introduces the fundamental problems in computer vision and the state-of-the-art approaches that address them. Topics include feature detection and matching, geometric and multi-view vision, structure from X, segmentation, object tracking and visual recognition.

**CR:** Computer Science 4301

**PR:** ENGI 7854 or Computer Science 3301 or permission of the instructor

**LH:** Six 3-hour sessions per semester

On page 549 of the 2017-18 edition of the Calendar,

**COMP 4301 Computer Vision** (same as Engineering 8814) studies how to develop methods that enable a machine to "understand" or analyze images. The course introduces the fundamental problems in computer vision and the state-of-the-art approaches that address them. Topics include feature detection and matching, geometric and multi-view vision, structure from X, segmentation, object tracking and visual recognition.

**CR:** Engineering 8814

**PR:** COMP 3301 or Engineering 7854 or permission of the instructor

**LH:** Six 3-hour sessions per semester

## ENGI 8814 / COMP 4301

### Calendar Entries after Changes

**ENGI 8814 Computer Vision** (same as Computer Science 4301) studies how to develop methods that enable a machine to "understand" or analyze images. The course introduces the fundamental problems in computer vision and the state-of-the-art approaches that address them. Topics include feature detection and matching, geometric and multi-view vision, structure from X, segmentation, object tracking and visual recognition.

CR: Computer Science 4301  
PR: ENGI 7854 or Computer Science 3301 or permission of the instructor  
LH: Six 3-hour sessions per semester

**COMP 4301 Computer Vision** (same as Engineering 8814) studies how to develop methods that enable a machine to "understand" or analyze images. The course introduces the fundamental problems in computer vision and the state-of-the-art approaches that address them. Topics include feature detection and matching, geometric and multi-view vision, structure from X, segmentation, object tracking and visual recognition.

CR: Engineering 8814  
PR: COMP 3301 or Engineering 7854 or permission of the instructor  
LH: Six 3-hour sessions per semester

### Rationale

After the recent Engineering accreditation visit, some comments were made to include more hands-on experiences for students in senior terms.

Currently, there is an already existing practice of giving unofficial labs for this course outside the lectures for interested students. The proposal is to include six official labs, 3 hours each, to give students hands-on training using software tools.

The prerequisite list for ENGI 8814 is also being updated to match the recently cross-listed course COMP 4301.

**ENGI 8814 / COMP 4301**

**Consultations Sought From**

**Comments Received**

Grenfell Campus	No
Marine Institute	Yes
Office of the Registrar (Calendar Editor)	Yes
Faculty of Business Administration	Yes
Faculty of Education	Yes
Faculty of Humanities and Social Sciences	No
Faculty of Medicine	Yes
School of Human Kinetics and Recreation	No
School of Music	No
School of Nursing	Yes
School of Pharmacy	Yes
School of Social Work	No

**Library Report Received** Yes

**Approved by Deans** Yes

Dr. G.F. Naterer (Engineering & Applied Science), Dr. M. Abrahams (Science)

---

**FOR OFFICE USE ONLY**

**APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES**

Chair:

Secretary:

Date:

**Kenny, Gail**

---

**From:** MathStat Graduate Officer <mathgrad@mun.ca>  
**Sent:** January-19-18 9:45 AM  
**To:** Kenny, Gail; JC LoredO-Osti  
**Subject:** Re: COMP 6919 - Special Topics Course

Hi Gail,

the course special topics course COMP-6919 has been approved with 10 votes in favour (Ron, Brian, Stephanie, Ken, Tom, Christina, Ivan, Rob, Carolyn and myself); none against.

Regards,  
-j

On 01/11/2018 02:26 PM, Kenny, Gail wrote:

> Hi JC,  
>  
> I have attached the paperwork for COMP 6919, Sensing with Mobile Devices, a special topics course proposal from the  
Computer Science Department, for review by the graduate studies committee.  
>  
> Gail  
>  
> Gail Kenny  
> Assistant to the Dean  
> Faculty of Science Office  
> Memorial University of Newfoundland  
> St. John's, NL A1B 3X7  
> gkenny@mun.ca  
>  
>





**Dean of Science Office**

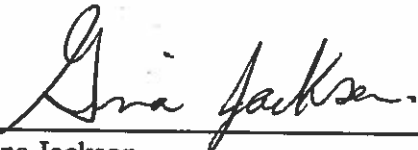
St. John's, NL Canada A1B 3X7  
Tel: 709 864 8153 Fax: 709 864 3316  
deansci@mun.ca www.mun.ca/science

January 19, 2018

**TO:** Registrar's Office  
**FROM:** Secretary, Faculty of Science Faculty Council  
**SUBJECT:** Special Topics Course

---

The special topics course, COMP 6919, Sensing with Mobile Devices, has been approved by the Faculty of Science Faculty Council Graduate Studies Committee. The Request for Approval of a Graduate Course forms are attached. If you require more information please let me know.

  
\_\_\_\_\_  
Gina Jackson  
Secretary, Faculty of Science Faculty Council

/gbk

cc: A. Williams, School of Graduate Studies  
R. Edwards, Department of Computer Science



# Request for Approval of a Graduate Course

JAN 11 2018

Received

School of Graduate Studies

Adobe Reader, minimum version 8, is required to complete this form. Download the latest version: <http://get.adobe.com/reader>. (1) Save the form by clicking on the diskette icon on the upper left side of the screen; (2) Ensure that you are saving the file in PDF format; (3) Specify where you would like to save the file, e.g. Desktop; (4) Fill in the required data and save the file; (5) Submit the completed form to:

School of Graduate Studies; Memorial University of Newfoundland; IIC-2012 (Bruneau Centre for Research and Innovation); St. John's, NL A1C 5S7 Canada Fax: 709.864.4702 eMail: [sgs@mun.ca](mailto:sgs@mun.ca)

To: Dean, School of Graduate Studies  
From: Faculty/School/Department/Program  
Subject:  Regular Course  Special/Selected Topics Course

Course No.: COMP 6919

Course Title: Sensing with Mobile Devices

I. To be completed for all requests:

A. Course Type:  Lecture course  Laboratory course  Directed readings  Lecture course with laboratory  Undergraduate course<sup>1</sup>  Other (please specify)

B. Can this course be offered by existing faculty?  Yes  No

C. Will this course require new funding (including payment of instructor, labs, equipment, etc.)?  Yes  No  
If yes, please specify:

D. Will additional library resources be required (if yes, please contact [munul@mun.ca](mailto:munul@mun.ca) for a resource consultation)?  Yes  No

E. Credit hours for this course: 3

F. Course description (reading list required):

Smart mobile devices have penetrated many aspects of the modern society and been woven into fabric of our everyday life. They pack a great deal of computational power and a rich set of sensors, and yet they are energy-efficient and ultra portable. They are capable of sensing our surroundings with precision and persistence, and we can capitalize on such capabilities to be

G. Method of evaluation:

	Written	Percentage	Oral
Class tests	30%		
Assignments	30%		
Other (specify): Project	40%		

Final examination:

Total 100%

<sup>1</sup> Must specify the additional work at the graduate level

II. To be completed for special/selected topics course requests only

For special/selected topics courses, there is no evidence of:

- |                                            |                              |
|--------------------------------------------|------------------------------|
|                                            | <b>Instructor's initials</b> |
| 1. duplication of thesis work              | Y.C.<br>_____                |
| 2. double credit                           | Y.C.<br>_____                |
| 3. work that is a faculty research product | Y.C.<br>_____                |
| 4. overlap with existing courses           | Y.C.<br>_____                |

Recommended for offering in the Fall Winter Spring 2019

Length of session if less than a semester:

III. This course proposal has been prepared in accordance with General Regulations governing the School of Graduate Studies

  
\_\_\_\_\_  
Course instructor

2018.12.19  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Approval of the head of the academic unit

Jan 3. 2018  
\_\_\_\_\_  
Date

IV. This course proposal was approved by the Faculty/School/Council

  
\_\_\_\_\_  
Secretary, Faculty/School/Council

Jan 19/18  
\_\_\_\_\_  
Date

## **COMP 6919** **Sensing with Mobile Devices**

### **Students Interested**

Graduate students who are interested in using modern mobile devices as sensory mechanisms to make sense of the context of user-initiated actions.

### **Rationale**

Smart mobile devices have become a prevalent part of modern society. They can extend our senses and augment our cognition when orchestrated correctly.

### **Objectives of the Course**

Smart mobile devices have penetrated many aspects of the modern society and been woven into fabric of our everyday life. They pack a great deal of computational power and a rich set of sensors, and yet they are energy-efficient and ultra portable. They are capable of sensing our surroundings with precision and persistence, and we can capitalize on such capabilities to be more situation-aware, informed, and foresighted. The course covers programming tools to obtain sensed data via smart mobile devices and algorithmic techniques to distill information and knowledge from thus acquired data. It further investigates avenues of using such knowledge to construct an intelligent ambience around users.

### **Background**

- Algorithms for machine learning, graph models, and applied computing problems
- Programming general computer systems and mobile devices

### **Representative Course Outline**

- Mobile data collection (10 hours)
  - Radios
  - Motion
  - Location
  - Sound
  - Images and videos
  - User interaction profiles
- Making sense of data (10 hours)
  - Signal sampling and processing
  - Machine learning fundamentals
  - Probabilistic state estimation
- Applications (10 hours)

- General gestures
- Activity recognition
- Augmented reality
- Indoor positioning
- Intelligent transportation systems
- From mobiles to other platforms (2 hours)
  - Aerial, ground, and underwater robots
  - Embedded systems

### **Labs**

The course has a series of weekly labs as tutorials on programming the iOS and Android OS mobile devices. They are not evaluated.

### **Method of Evaluation**

Assignments (×5)	30%
Midterm exam	30%
Project and report	30%
Project presentation	10%

### **Credit Restrictions**

N/A

### **Suggested texts/references**

- “Sensing and systems in pervasive computing: engineering context aware systems” by Dan Chalmers. ISBN-13: 978-0857298409, Springer 2011
- “IEEE Pervasive Computing”, IEEE Press, periodical

### **Instructors**

Y. Chen

### **Calendar Entry**

COMP-6919 investigates data that can be gathered using smart mobile devices and how to make sense of the data for the users. Students learn programming mobile platforms and knowledge generation out of sensed data.

## Kenny, Gail

---

**From:** JC Loredo-Osti <jcloredoosti@mun.ca>  
**Sent:** March-01-18 9:09 PM  
**To:** Kenny, Gail  
**Subject:** Re: Special Topics course - PHYS 6819

Hi Gail,

the course has been approved with 10 votes in favour (Cyr, Ron, Luke, Ivan, Ken, Stephanie, Carolyn, Yuanzhu, Brian and myself).

Best,  
-j

On 01/03/18 10:28 AM, Kenny, Gail wrote:

> Good morning JC,  
>  
> Please find attached the paperwork for PHYS 6819 for discussion by the Graduate Studies Committee. The course will  
be offered at the Grenfell campus in Fall 2018, if approved.  
>  
> Gail  
>  
> Gail Kenny  
> Assistant to the Dean  
> Faculty of Science Office  
> Memorial University of Newfoundland  
> St. John's, NL A1B 3X7  
> gkenny@mun.ca  
>  
>

--  
JC Loredo-Osti, Professor  
Department of Mathematics and Statistics Memorial University  
Phone: +(709) 864 8729

"Alas! all music jars when the soul's out of tune"  
--Miguel de Cervantes



# Request for Approval of a Graduate Course

School of Graduate Studies

Adobe Reader, minimum version 8, is required to complete this form. Download the latest version: <http://get.adobe.com/reader>. (1) Save the form by clicking on the diskette icon on the upper left side of the screen; (2) Ensure that you are saving the file in PDF format; (3) Specify where you would like to save the file, e.g. Desktop; (4) Fill in the required data and save the file; (5) Submit the completed form to:

School of Graduate Studies: Memorial University of Newfoundland; IIC-2012 (Bruneau Centre for Research and Innovation); St. John's, NL A1C 5S7 Canada Fax: 709.864.4702 eMail: [sgs@mun.ca](mailto:sgs@mun.ca)

To: Dean, School of Graduate Studies  
From: Faculty/School/Department/Program  
Subject:  Regular Course  Special/Selected Topics Course

Course No.: PHYS 6819

Course Title: Introduction to Quantum Field Theory

I. To be completed for all requests:

A. Course Type:  Lecture course  Lecture course with laboratory  
 Laboratory course  Undergraduate course<sup>1</sup>  
 Directed readings  Other (please specify)

B. Can this course be offered by existing faculty?  Yes  No

C. Will this course require new funding (including payment of instructor, labs, equipment, etc.)?  Yes  No  
If yes, please specify:

D. Will additional library resources be required (if yes, please contact [munul@mun.ca](mailto:munul@mun.ca) for a resource consultation)?  Yes  No

E. Credit hours for this course: 3.0

F. Course description (reading list required):

This course explores topics such as field quantization technique, development of Feynman calculus, Born and one-loop calculations, regularization of ultraviolet and infrared divergences, renormalization of the Quantum Electrodynamics, Lamb shift and anomalous magnetic dipole moments.

G. Method of evaluation:

	Percentage	
	Written	Oral
Class tests	30%	
Assignments	40%	
Other (specify):		
Final examination:	30%	

Total 100%

<sup>1</sup> Must specify the additional work at the graduate level

**II. To be completed for special/selected topics course requests only**

For special/selected topics courses, there is no evidence of:

- |                                            | Instructor's initials |
|--------------------------------------------|-----------------------|
| 1. duplication of thesis work              | <u>A. A.</u>          |
| 2. double credit                           | <u>A. A.</u>          |
| 3. work that is a faculty research product | <u>A. A.</u>          |
| 4. overlap with existing courses           | <u>A. A.</u>          |

Recommended for offering in the  Fall  Winter  Spring 20 18

Length of session if less than a semester:

**III. This course proposal has been prepared in accordance with General Regulations governing the School of Graduate Studies**

A. Aleksejevs  
 \_\_\_\_\_  
 Course Instructor

27/02/2018  
 \_\_\_\_\_  
 Date

*Janis Dapevici*  
 \_\_\_\_\_  
 Approval of the head of the academic unit

March 1, 2018  
 \_\_\_\_\_  
 Date

**IV. This course proposal was approved by the Faculty/School/Council**

\_\_\_\_\_  
 Secretary, Faculty/School/Council

\_\_\_\_\_  
 Date



# Physics 6819: An Introduction to Quantum Field Theory

**Classes:** Lectures, schedule: TBD

**Instructor:** Dr. Aleksandrs Aleksejevs, Ph. 639-2701, AS 3021  
email: [aaleksejevs@grenfell.mun.ca](mailto:aaleksejevs@grenfell.mun.ca)

## **Textbooks:**

*An Introduction to Quantum Field Theory*, M. Peskin and D. Schroeder,  
(Perseus Books Publishing)

**Description:** The students should be familiar with Dirac notation and basics of the quantum mechanics before taking this course. The course is focused on various techniques in Quantum Field Theory. After the completion, the students will be able to calculate observables for the arbitrary processes in Quantum Electrodynamics up to one-loop level.

## **Evaluation:**

Assignments: 40% (assignments are given on bi-weekly basis, no late submission of the assignment will be accepted)

Mid-term Test: 30% (in class 2-hour term test, problem based)

Final Take Home Exam: 30%.

## **Outline.**

### **I. The Dirac Field (~ 2 weeks)**

1. Elements of Classical Field Theory
2. The Dirac Equation and Dirac Bilinears
3. Quantization of the Dirac Field: The Dirac Propagator

## **II. Interacting Fields and Feynman Diagrams (~ 2 weeks)**

1. Perturbation Expansion of Correlation Functions
2. Wick's Theorem
3. Feynman Diagrams
4. Cross Sections and S-Matrix
5. Computing S-Matrix Elements from Feynman Diagrams
6. Feynman Rules for Quantum Electrodynamics

## **III. Elementary Processes (~ 2 weeks)**

1. Electron-positron Collisions: Trace Technology; Unpolarized Cross Section
2. Crossing Symmetry: Electron-Muon Scattering
3. Compton Scattering

## **IV. Radiative Corrections (~ 3 weeks)**

1. Electron Self-Energy and Vertex Correction
2. Regularization of the Ultraviolet and Infrared Divergences
3. Photon Self-Energy: Vacuum Polarization
4. Box Diagram for Electron-Muon Scattering
5. Soft Photon Bremsstrahlung and Removal of Infrared Divergence

## **V. Renormalization of Quantum Electrodynamics (~ 3 weeks)**

1. Multiplicative Renormalization: On-Shell Scheme
2. Renormalization Conditions and Ward-Takahashi Identity
3. Renormalization of the Charge, Mass and Wave Function
4. Lamb Shift:  $2S_{1/2} - 2P_{1/2}$  Splitting
5. Anomalous Magnetic Moment of Muon:  $(g-2)$

### **Important general University Policies:**

**It is the student's responsibility to familiarize themselves with University guidelines.**

**You can find them at University Calendar, School of Graduate Studies, Section 2**

**Student Code of Conduct.**

<http://www.mun.ca/student/conduct/>

**Accommodations for Students with Disabilities**

<http://www.mun.ca/blundon/accommodations/>



**School of Graduate Studies**

Office of the Dean  
St. John's, NL Canada A1C 5S7  
Tel 709 864 2445 Fax 709 864 4702  
sgs@mun.ca www.mun.ca/sgs

March 2, 2018

**To:** Faculty/School Councils

**From:** Dean, School of Graduate Studies

**Re:** Draft changes to calendar language for comprehensive examinations (4.8) and evaluation of theses (4.10)

---

Dear colleagues,

Before putting a motion to SGS Academic Council Executive and SGS Academic Council, we seek feedback on the attached calendar language changes. How you decide to solicit feedback is up to you, but we ask that all comments be sent to SGS (c/o Annette Williams, [awilliam@mun.ca](mailto:awilliam@mun.ca)) on or before April 27, 2018.

**Summary of changes**

1. All references to candidate(s) changed to student(s)
2. All uses of "his/her" either eliminated or changed to their or students
3. Adding or delegate into 4.8.1.1 for consistency
4. All references to "field", "area", "sub-disciplines", "chosen field" changed to research area(s)

**Rationale**

The first three sets of changes reflect the ongoing and necessary work of updating calendar language.

The last set of changes results from the fact that PhD comprehensive examination structures vary widely across the university. Thus, use of terms such as "sub-disciplines" (particularly in section 4.8.2.3), where such disciplinary boundaries or distinctions do not inform the structure or content of comprehensive exams, can be confusing, misleading, and/or problematic to both students and comprehensive examination committees. We have therefore changed all the diction concerning subject areas to "research area(s)."

Corresponding changes are also made to the section on evaluation of theses for consistency.

As usual, nothing in these changes prevents academic units from writing their own comprehensive examination procedures using whatever terms they deem appropriate to their own research area(s). These changes are to ensure that the SGS regulations reflect general practices.

We seek faculty council feedback on these changes: namely, does the revised text still adequately reflect your practice?

  
Dr. Aimée Surprenant

## 4.8 Comprehensive Examinations

### 4.8.1 Master's Comprehensive Examination

1. The composition of the Comprehensive Examination Committee is specified in the Degree and Departmental regulations, and the Committee is appointed by the Dean. The Dean of Graduate Studies or delegate may exercise the right to attend. All members of the Committee including the Chairperson, but excluding the Dean of Graduate Studies or delegate, shall be voting members.
2. In this examination the ~~candidates~~ students must demonstrate an advanced knowledge of the academic discipline as defined by the academic unit in which they are students. Therefore, in order to be eligible to sit the examination, all course requirements must normally be completed.
3. In cases where there are multiple parts to a comprehensive exam, including written and oral parts, a ~~candidate~~ student must satisfy all parts of the examination to obtain a pass. The requirements to advance to a later part of the examination are specified in the Degree and Departmental regulations or by the appropriate academic unit.
4. Members of the Comprehensive Examination Committee shall decide the results of the comprehensive examination as indicated in a.-d. below:
  - a. The category of 'pass with distinction' will be awarded to ~~candidate~~ students who demonstrate superior knowledge of their ~~chosen~~ research field. This category requires unanimous support of the Comprehensive Examination Committee.
  - b. The category of 'pass' will be awarded to ~~candidate~~ students who demonstrate an acceptable knowledge of their ~~chosen~~ research area(s) and requires a simple majority vote.
  - c. The category of 're-examination' selects those ~~candidate~~ students with an understanding of their research area(s) that lacks sufficient depth and scope as indicated by a simple majority of the Comprehensive Examination Committee. Only one such re-examination is possible and students in this category are not eligible for the award of 'pass with distinction'. If a re-examination is to be held, it must be conducted not less than one month and not more than six months after the first examination. The decision of the voting members of the Committee following this re-examination can only be 'pass' or 'fail' decided by simple majority. Failure will lead to immediate termination of the ~~candidate~~ student's program. There is no option for further re-examination.
  - d. Students awarded a 'fail' are deemed, by unanimous vote of the Comprehensive Examination Committee, to be unable to demonstrate an adequate understanding of their research area(s). The ~~candidate~~ student's program is terminated. A simple majority vote will default to the award of 're-examination'.
5. The Chairperson of the Comprehensive Examination Committee shall report to the Head of the academic unit who shall report to the Dean. The result of the comprehensive examination(s) shall be reported to the ~~candidate~~ student by the Dean.

### 4.8.2 Ph.D. and Psy.D. Comprehensive Examination

1. The ~~candidate~~ student shall submit to a comprehensive examination, which may be written or oral or both as determined by the academic unit. ~~Candidates~~ Students shall

normally take the examination no later than the end of the seventh semester in the doctoral program. Unless an extension is approved by the Dean of Graduate Studies, failure to take the examination at this time will result in the termination of the ~~candidate~~ student's program.

2. This examination, whether written or oral, shall be conducted by a Committee appointed by the Dean of Graduate Studies on the recommendation of the academic unit. It shall consist of the Head of the academic unit (or delegate) who shall be the Chairperson, the ~~candidate~~ student's Supervisor [or, where a Supervisor has not yet been appointed, the Graduate Officer or Chair of the Graduate Studies (or equivalent) Committee], the Dean of Graduate Studies (or delegate), and at least three other members, the total voting members to be an odd number. All members of the Committee including the Chairperson, but excluding the Dean of Graduate Studies or delegate, shall be voting members.
3. In this examination, the ~~candidate~~ student must demonstrate a mastery of those ~~sub-disciplines~~ subjects appropriate to his/her ~~the~~ student's research area, as defined by the academic unit in which he or she is a student. Therefore, in order to be eligible to sit the examination, all course requirements must normally be completed. The ~~sub-disciplines~~ research area(s) upon which the ~~candidate~~ student will be examined should be made known to the ~~candidate~~ student no later than three months prior to the examination. The ~~candidate~~ student must further be able to relate the specialization of his/her ~~the~~ research to the larger context of these ~~sub-disciplines~~ research areas.
4. In cases where there are multiple parts to a comprehensive exam, including written and oral parts, a ~~candidate~~ student must satisfy all parts of the examination to obtain a pass. The requirements to advance to a later part of the examination are specified in the Degree and Departmental regulations or by the appropriate academic unit.
5. Members of the Comprehensive Examination Committee shall decide the results of the comprehensive examination as indicated in a.-d. below:
  - a. The category of 'pass with distinction' will be awarded to ~~candidates~~ students who demonstrate superior knowledge of their ~~chosen-field~~ research area(s). This category requires unanimous support of the Comprehensive Examination Committee.
  - b. The category of 'pass' will be awarded to ~~candidates~~ students who demonstrate an acceptable knowledge of their ~~chosen~~ research area and requires a simple majority vote.
  - c. The category of 're-examination' selects those ~~candidate~~ students with an understanding of their ~~research area(s)~~ research area(s) that lacks sufficient depth and scope as indicated by a simple majority of the Comprehensive Examination Committee. Only one such re-examination is possible and students in this category are not eligible for the award of 'pass with distinction'. If a re-examination is to be held, it must be conducted not less than one month and not more than six months after the first examination. The decision of the voting members of the Committee following this re-examination can only be 'pass' or 'fail' decided by simple majority. Failure will lead to immediate termination of the candidate's program. There is no option for further re-examination.

- d. Students awarded a 'fail' are deemed, by unanimous vote of the Comprehensive Examination Committee, to be unable to demonstrate an adequate understanding of their research area(s). The candidate's program is terminated. A simple majority vote will default to the award of 're-examination'.
6. The Chairperson of the Comprehensive Examination Committee shall report to the Head of the academic unit who shall report to the Dean. The result of the comprehensive examination(s) shall be reported to the candidate student by the Dean.

## 4.10 Theses and Reports

### 4.10.1 Thesis/Report Guide Supplement

The Guidelines for Theses and Reports, available at ([www.mun.ca/sgs/go/guid\\_policies/theses.php](http://www.mun.ca/sgs/go/guid_policies/theses.php)), approved by the Academic Council of the School of Graduate Studies, provides the details for the examination process, general form and style of the thesis/report, required forms, number of copies, etc., required under this regulation.

### 4.10.2 Submission

1. Candidates Students must submit the thesis/report at least four months before the University Convocation at which the award of the Degree is expected (see **University Diary** in current edition of **University Calendar** for exact date). The School of Graduate Studies does not accept any responsibility for completing the prescribed procedure in time for the nearest Convocation unless theses or reports are submitted by the prescribed dates in any current academic year.
2. A thesis/report may not be submitted until the candidate student has fulfilled:
  - a. All course requirements, if any
  - b. All language requirements, if any
  - c. The comprehensive examination, if required, and
  - d. All other academic requirements of the academic unit concerned.

### 4.10.3 Evaluation of Master's Theses and Reports

1. Final examiners for the thesis/report will be appointed by the Dean on the recommendation of the academic unit. There will be two examiners for a Master's thesis. Examiners shall normally be those who have completed a graduate degree at the doctoral level, including a thesis, in the discipline or cognate area. Those serving as examiners shall not have been involved in the preparation of the thesis/report.
2. Examination of the thesis/report will result in one of the following recommendations by each examiner. The thesis/report is:
  - a. acceptable without modifications; or
  - b. acceptable, modifications are required but the thesis does not have to be re-examined\*; or
  - c. unacceptable, the thesis/report requires modification and re-examination\*\*; or
  - d. totally unacceptable, the thesis/report is failed.\*\*\*

\*Modifications may include corrections of typographical errors and errors in nomenclature, improvement in phrasing, or rewriting of sections of the thesis/report. Modifications may be indicated in the text or listed separately;

\*\*Modifications might include (but are not limited to) the rectification of one or more of the following deficiencies: (1) misinterpretation and/or misuse of the matter covered, omission of relevant materials, unfounded conclusions, illogicality of argument, improper analysis of data and the like, (2) bad writing, (3) unacceptable physical presentation. A detailed list of problems should be included with the report;

\*\*\*A detailed list of the reason(s) for failure must be included in the report.

3. If all examiners recommend that the thesis/report is totally unacceptable, then the thesis will be failed, and shall not be re-examined.



4. If an examiner recommends that the thesis/report is unacceptable, and this recommendation is accepted by the Dean, then the student may apply to the Dean for permission to resubmit the thesis for re-examination in one of the following ways:
  - . to submit a modified thesis/report to the original examiners.
  - a. to submit a modified thesis/report to new examiners.
  - b. to submit the original thesis/report to an Examination Board to be appointed by the Dean.
5. If a thesis/report is re-examined, the candidate student will not be awarded a pass unless all examiners find the thesis acceptable.
6. Under no circumstances may a thesis/report be re-examined more than once.

#### 4.10.4 Evaluation of Ph.D. and Psy.D. Theses

Candidates Students for the Degree of Doctor of Philosophy and the Degree of Doctor of Psychology must submit a written dissertation deemed acceptable by the University, and demonstrate their ability to defend their work in a public oral examination. For this reason, the final decision on whether a candidate student will be recommended for the award of the degree is made only at the conclusion of the oral examination (see **The Examination Process**).

##### 1. Responsibilities of the Thesis Examining Board

The work of each candidate student will be assessed by a Thesis Examining Board. Its first responsibility is to determine whether the thesis successfully demonstrates the candidate student's competence to undertake independent research work. The Board must be satisfied that the work contributes significantly to knowledge in the field of study; that the contribution is of high scholarly merit; that the candidate student is aware of the pertinent published literature; that it is written in a satisfactory style; and that it is free from typographical and other mechanical errors. The second responsibility of the Board is to conduct a final oral examination of the candidate student and to then recommend to the Dean of Graduate Studies whether the candidate student should be awarded the Degree.

##### 2. Composition of the Thesis Examining Board

The members of the Thesis Examining Board will be appointed by the Dean on the recommendation of the Head of the academic unit who will have consulted with the supervisory committee. The Board shall consist of four members. Normally these will be the candidate student's Supervisor (who serves on the Board in a non-voting capacity), two examiners from within the University, and one from outside the University. However, when circumstances warrant, a second external examiner may be substituted for one of the internal examiners with permission of the Dean. Examiners shall normally be those who have completed a graduate degree at the doctoral level, including a thesis, in the discipline or cognate area. Members of the supervisory committee other than the Supervisor are ineligible for appointment to the Board. Those serving as examiners shall not have been involved in the preparation of the thesis/report.

##### 3. The Examination Process

- a. The voting members of the Board shall submit written reports on the thesis containing an assessment of the quality of the written work and a recommendation as to whether the candidate student should be permitted to proceed to an oral examination and defence of the work. An examiner may recommend:
  - i. that the candidate student be allowed to proceed to the oral defence of the thesis\* ; or
  - ii. that the candidate student not be allowed to proceed to the oral defence at this time\*\* ; or
  - iii. that the candidate student should be failed.

\*Any suggested corrections or revisions should be outlined in the examiner's report. It is understood that it will be the responsibility of the Supervisory Committee to discuss the suggested changes with the candidate student, to determine which should be incorporated in the thesis before its final submission.

\*\* This recommendation reflects the examiner's opinion that further research, re-analysis of data, or thorough rewriting of the material is required. The thesis may, however, be re-submitted for examination.

- b. If all examiners recommend that the candidate student should be failed, then the thesis shall not be re-examined.
- c. If an examiner recommends that the candidate student not be allowed to proceed to the oral defence, and this recommendation is accepted by the Dean, then the student may apply to the Dean for permission to resubmit the thesis for re-examination in one of the following ways:

- i. to submit a modified thesis to the original examiners.
- ii. to submit a modified thesis to new examiners.
- iii. to submit the original thesis to an Examination Board to be appointed by the Dean.
- d. No candidate student will be permitted to re-submit a thesis more than once. In case of a re-submitted thesis an examiner may recommend only:
  - i. that the candidate student be allowed to proceed to the oral defence of the thesis; or
  - ii. that the candidate student should be failed.
- e. After receiving the reports from all three voting members of the Board the Dean will consider the recommendations and determine whether an oral defence of the thesis will be scheduled.
- f. The Final Oral Examination and Defence of Thesis will take place at a time and place to be determined by the Dean of Graduate Studies and will be chaired by the Dean or-his/her (or delegate). The presence of all members of the Examining Board is normally required.
- g. Following the defence, the Board will meet *in camera* to render a final assessment of the thesis and the candidate student's ability to defend his/her their work. The Board may recommend one of the following outcomes:
  - i. Passed with distinction (Awarded to candidate students who demonstrate superior knowledge of their chosen-field research area; this category requires unanimous support of the Board. A simple majority vote will result in a recommendation of 'passed'.)
  - ii. Passed\*
  - iii. Passed Subject to Conditions\*\*
  - iv. Re-examination required\*\*\*
  - v. Failed\*\*\*\*

\*This recommendation may have attached to it the requirement that the candidate complete certain specified revisions to the satisfaction of the Supervisory Committee, the Head of the academic unit and the Dean. These revisions must have been specified in the written appraisal submitted prior to the Oral Examination.

\*\*This recommendation is made if there are revisions beyond those specified in the written appraisal submitted prior to the Oral Examination. This recommendation must have the conditions attached and cannot include the option of re-examination.

\*\*\*The members of the Thesis Examination Board may attach to this recommendation a list of any requirements which they feel are appropriate.

\*\*\*\*Re-examination not permitted.
- h. If the members of the Board are unanimous in their recommendation, the Chair of the Examination may accept this recommendation and inform the candidate of the decision. In any other case, however, the delivering of any final decision shall be deferred pending further consultation within the School of Graduate Studies.
- i. No candidate shall be permitted more than two Oral Examinations.

#### 4.10.5 Time Limit for Revision

The final version of Master's, Ph.D., and Psy.D. theses/reports found acceptable with or without corrections shall be submitted to the School of Graduate Studies within 6 months of the date on which the thesis/report and the student's examiners' reports are returned to the student's academic unit. If a corrected thesis/report is not submitted within 6 months the student is considered to have withdrawn from the program. After this time, the student must apply to be readmitted.

Master's, Ph.D., and Psy.D. theses/reports requiring re-examination shall be resubmitted to the School of Graduate Studies within 12 months of the date on which the thesis/report and the examiner's reports are returned to the student. Students requiring resubmission and re-examination of theses/reports must maintain their registration during this period. Failure to resubmit the revised thesis/report within 12 months will result in termination of the student's program.

**Note:**

Please refer to *Registration for regulations governing program registration.*

#### 4.10.6 Prepublication

Publication of material before submission of the thesis/report for examination is permitted. The School of Graduate Studies and Supervisor should be informed of such publication.