



**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, January 18, 2017, at 1 p.m. in C-2045.

**AGENDA**

1. **Regrets**
2. **Adoption of the Minutes of December 7, 2016**
3. **Business Arising from the Minutes:** None
4. **Correspondence:** None
5. **Reports of Standing Committees:**
  - A. **Undergraduate Studies Committee:** None
  - B. **Graduate Studies Committee:**
    - a. Department of Chemistry, calendar changes, 5.B.a (4 pages).
  - C. **Nominating Committee:** None
  - D. **Library Committee:** None
6. **Reports of Chair in Teaching & Learning and Teaching Consultant**
7. **Reports of Delegates from Other Councils**
8. **Presentation by Gordon Deveau (NSERC) and Paula Clark (RDC)**
9. **Report of the Dean**
10. **Question Period**
11. **Adjournment**

A handwritten signature in blue ink, appearing to read "Mary Courage".

Mary Courage  
Interim Dean of Science



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**FACULTY OF SCIENCE  
FACULTY COUNCIL OF SCIENCE  
MINUTES OF MEETING OF DECEMBER 7, 2016**

A meeting of the Faculty Council of the Faculty of Science was held on Wednesday, December 7, 2016, at 1:00 p.m. in room C-2004.

**FSC 2476**

**Present**

**Biochemistry**

Berry, M. Booth, V.

**Biology**

Jones, I. Purchase, C. Roncal, J. Staveley, B.

**Chemistry**

Bottaro, C. Flinn, C. Fridgen, T. Katz, M. Kerton, F.  
Kozak, C.

**Computer Science**

Bungay, S. Penã-Castillo, L.

**Earth Sciences**

Hanchar, J.

**Mathematics & Statistics**

Booth, I. Dyer, D. Haynes, R. Loredó-Ostí, J.C. Mantyka, S.  
Radford, C. Sullivan, S.

**Ocean Sciences**

Fletcher, G. Mercier, A.

**Physics & Physical Oceanography**

Evstigneev, M. Morrow, M. Munroe, J. Plumer, M.

**Psychology**

Thorpe, C.



**Reports of Standing Committees:****A. Undergraduate Studies Committee:**

Report presented by Shannon Sullivan, Chair, Undergraduate Studies Committee

- a. **Moved:** Department of Physics & Physical Oceanography, calendar change, PHYS 3800 (Sullivan/Plumer). **Carried.**
- b. Department of Earth Sciences, calendar changes, four separate motions. **Moved:** Require a minimum grade of 55% in EASC 1000 and EASC 1002 for all Earth Sciences courses that have these courses as prerequisites (Sullivan/Hanchar). **Carried.**  
**Moved:** Add PHYS 2820 to the prerequisite listing for EASC 4179 (Sullivan/Morrill). **Carried.**  
**Moved:** Replace CHEM 1010 and CHEM 1011 by CHEM 1050 and CHEM 1051, respectively, in existing Earth Sciences degree requirements and course prerequisites (Sullivan/Morrill). **Carried.**  
**Moved:** Revise course description of EASC 2916 and include a credit restriction and minor wording changes (Sullivan/Morrill). **Carried.**
- c. **Moved:** Department of Mathematics & Statistics, calendar changes, MATH 3000 (Sullivan/Radford). **Carried.**
- d. **Moved:** Department of Mathematics & Statistics, proposal for new course, MATH 109A/B (Sullivan/Radford). **Carried.**
- e. **Moved:** Faculty of Science, proposal for joint Bachelor of Science and Bachelor of Arts degree program (Sullivan/Foster). **Carried.**
- f. Department of Computer Science, three separate motions. **Moved:** Proposals for thirteen new courses (Sullivan/Bungay). **Carried.**  
**Moved:** Proposal for new major in Smart Systems (Sullivan/Bungay). **Carried.**  
**Moved:** Proposal for new major in Visual Computing & Games (Sullivan/Bungay). **Carried.**
- g. **Moved:** Department of Biology, calendar changes (Sullivan/Jones). **Carried.**
- h. **Moved:** Department of Ocean Sciences, calendar changes, amendment to the prerequisite for OCSC 2000 (Sullivan/Mercier). **Carried.**
- i. **Moved:** Department of Ocean Sciences, calendar changes, amendment to the minor program in Sustainable Aquaculture and Fisheries Ecology (Sullivan/Mercier). **Carried.**
- j. **Moved:** Department of Earth Sciences, proposal for a new joint major program in Marine Biology (Sullivan/Mercier). **Carried.**

**B. Graduate Studies Committee:**

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

- a. **Moved:** Department of Earth Sciences, proposal for new course, EASC 6801, Palaeobiology of Early Animal Life (Loredo-Osti/Hanchar). **Carried.**

b. Department of Earth Sciences, special topics course, EASC 6917, Methods for Locating and Re-Locating Microseismic Events, presented to Council for information only.

C. **Nominating Committee:** None

D. **Library Committee:** None

**FSC 2482      Response to the Committee on Elections and Committees Regarding Composition of Senate**

Feedback was requested from the departments in the Faculty of Science on the composition of Senate. From the scenarios provided by the Committee on Elections and Committees, the general response from departments was to either remain with the existing allocation of eight seats or adopt Scenario 1 which would reduce the number of seats by Science faculty to seven. The proposed motion by Dr. Abrahams as a response to the Committee on Elections and Committees was: The Faculty of Science prefers senate representation approximate proportional representation and that other mechanisms be pursued to fill vacant senate seats. For that reason, our preference for the distribution of senate seats is to retain the existing allocation, or scenario 1 (Abrahams/Foster). **Carried.** General discussion ensued on the number of seats that the Science Faculty has and in comparison to other units on campus.

**FSC 2483      Reports of Chair in Teaching & Learning and Embedded Teaching Consultant:**

There was no report from the Chair in Teaching & Learning.

Report by Amy Todd, Embedded Teaching Consultant.

A new subset of the Faculty of Science webpage will be launched next week highlighting teaching in the Faculty of Science. The new teaching component will allow us space to showcase teaching within our faculty, including ongoing projects and award recipients. This component will be echoed down within the departmental webpages, where departments are encouraged to highlight excellence around teaching and learning that is occurring within their own departments.

**FSC 2484      Reports of Delegates from Other Councils:      None**

**FSC 2485      Report of the Dean**

Presented by Mark Abrahams, Dean.

Much of the Dean's time has been spent providing support to Memorial's Ocean Frontier Institute and hiring permanent staff for that facility. One offer has been made, and announcements will be made once we have final decisions. It is expected that permanent staff will be in place for January 1, 2017.

A delegation from the Department of Computer Science and the Dean met with the Minister of Education, Dale Kirby, to discuss what we could do to promote computer literacy within the K-12 school system. The meeting was very positive, and the Department of Computer Science will now work with the task force, Chaired by Alice Collins, on substantive actions to assist the Department of Education.

Dr. Gosine, in his role as VPR *Pro Tempore*, will be seeking to further decentralize grant applications. This has been successfully done for NSERC Discovery Grants. Dr. Gosine plans to follow a similar approach with Research Tools and Instrument Grants and potentially also student awards. It was asked if additional resources would be required. It was noted that downloading RTI grant applications would reduce the workload as much of the work is done prior to submission to RGCS. Downloading university student research awards to the Faculty level will enable the Dean's Office to more easily make decisions on faculty student awards in a timely manner. The Dean was asked whether allocations of awards and grants would be proportional to the academic unit's share of tri-agency awards. His understanding was that this would be the case.

Planning for the retendering process for the Core Sciences Facility has been proceeding intensively for the last five months, and the tender should have gone out earlier this week to be awarded early in the new year.

This will be the last Science Council meeting for Dr. Abrahams for some time as he moves over to the Interim AVPR role. Dr. Mary Courage will be Acting Dean of Science. However, Dr. Abrahams will continue to be involved in the work of the Faculty of Science including the ongoing reviews of the Bonne Bay Marine Station and the Interdisciplinary Graduate Programs. He will also continue to develop Chairs associated with the Skinner Foundation as well as fundraising for the Core Sciences Facility. As AVPR, Dr. Abrahams will also remain on the Steering Committee for the Core Sciences Facility and the Executive Committee for the Ocean Frontier Institute.

Dr. Abrahams wished everyone a safe and happy holiday and looks forward to seeing everyone in the New Year.

**FSC 2486**      **Question Period:**      **None**

**FSC 2487**      **Adjournment**  
The meeting adjourned at 1:55 p.m.

**Kenny, Gail**

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**From:** MathStat Graduate Officer <mathgrad@mun.ca>  
**Sent:** December-07-16 11:42 AM  
**To:** Kenny, Gail  
**Subject:** Fwd: Proposed Calendar Change for Chemistry Doctoral Program  
**Attachments:** Chemistry PhD Calendar Changes November 2016.pdf

Hi Gail,

these calendar changes have been approved by with committee with 11 votes in favour (Cyr, Carolyn, Ron, Yuanzhu, Brian, Alison, Mary, Ivan, Bob, Stephanie, Christina and myself). The motion can be submitted for the approval of the Faculty Council.

Thanks,

-j

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

**Subject:**Fwd: Proposed Calendar Change for Chemistry Doctoral Program

**Date:**Mon, 28 Nov 2016 12:56:26 -0330

**From:**JC LoredO-Osti <jcloredoosti@mun.ca>

**To:**Brian E. Staveley <bestave@mun.ca>, Christina Bottaro <cbottaro@mun.ca>, JC LoredO-Osti <jcloredoosti@mun.ca>, Gail Kenny <gkenny@mun.ca>, Len Zedel <zedel@mun.ca>, Ron Haynes <rhaynes@mun.ca>, Rob Bertolo <rbertolo@mun.ca>, Ivan Booth <ibooth@mun.ca>, Stephanie H. Curnoe <curnoe@mun.ca>, Cyr Couturier <Cyr.Couturier@mi.mun.ca>, Carolyn Walsh <cwalsh@play.psych.mun.ca>, Tom Chapman <tomc@mun.ca>, Courage, Mary <mcourage@mun.ca>, Yuanzhu Chen <yzchen@mun.ca>, Alison Malcolm <amalcolm@mun.ca>, A. Kurt Gamperl <kgamperl@mun.ca>

Dear all,

attached is a request from Chemistry to remove C-6002 (Doctoral seminar) as a requirement for the Ph.D. programme.

Please, let me know your decision at your earliest convenience,

-j

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

**Subject:** Proposed Calendar Change for Chemistry Doctoral Program

**Date:** Mon, 28 Nov 2016 11:27:25 -0330

**From:** Christina Bottaro <cbottaro@mun.ca>

**To:** 'JC LoredO-Osti' <jcloredoosti@mun.ca>, 'Gail Kenny' <gkenny@mun.ca>

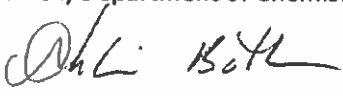
MEMORANDUM

To: Dr. Aimée Surprenant Dean of Graduate Studies

From: Dr. Christina Bottaro, Deputy Head (Graduate and Research) Department of Chemistry

Date: November 22, 2016

Subject: Proposed Modifications to the Regulations Governing the Degree of Doctor of Philosophy in Chemistry: Elimination of requirement to complete Chemistry 6002



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The Department of Chemistry has agreed that Chemistry 6002 (Doctoral Seminar) no longer serves the needs of our doctoral students. The department proposes the elimination of this course from our program requirements.

Rationale: The Doctoral Seminar (Chemistry 6002) was introduced to evaluate the ability of our students to give seminars in a formal environment and to demonstrate that they can become conversant in an area of academic inquiry beyond their own research program. As our doctoral program has evolved, we have found that this exercise has less and less merit because the students now have numerous opportunities to demonstrate their competence in giving scientific talks. Formally, graduate students give seminars in graduate courses, and most students now undergo their comprehensive examination in an oral format. Both are administered in a rigorous way and evaluated as part of the students' grades. Our students also have many more opportunities to give talks and seminars at local conferences and colloquia as well as national and international conferences. In this context, the requirement to give a Doctoral Seminar offers little value to the department or the student. Doctoral students will continue to give their departmental Doctoral Research Seminar (C6003)

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## 32.5 Chemistry

- [www.mun.ca/science](http://www.mun.ca/science)
- [www.mun.ca/chem](http://www.mun.ca/chem)
- **Professor and Head of the Department**
  - T. Fridgen

### 32.5.1 Program of Study

The Degree of Doctor of Philosophy in Chemistry is offered as full-time or part-time study. A Master's Degree in Chemistry or related area from a recognized university is normally required for entry into the Ph.D. program. Students holding a Bachelor's Degree (Honours or equivalent) in Chemistry may be considered for direct admission into the Ph.D. program. Students currently registered in the Memorial University of Newfoundland's Chemistry M.Sc. program for a minimum of three semesters may request transfer into a Ph.D. program. The transfer should be supported by the Supervisor and the Supervisory Committee and subsequent to satisfactory presentation of a written progress report and Ph.D. research proposal.

1. Upon recommendation of their supervisor, candidates will write American Chemical Society (ACS) placement test(s) in the first two weeks of their initial semester of registration in order to determine an appropriate course program.
2. Candidates will be assigned a Supervisory Committee consisting of the Supervisor and at least two other appropriate faculty members appointed by the Dean on recommendation of the Chemistry Deputy Head (Graduate Studies).
3. The program of a candidate must be arranged by the Supervisor in consultation with the Supervisory Committee and the student before the second semester of registration. It is the responsibility of the Supervisory Committee to meet at least annually with the student, to provide guidance at all stages of the candidate's program, and, in consultation with the student, to prepare annual written progress reports for submission to the Dean of Graduate Studies.
4. Candidates holding a Master's Degree from a recognized university are normally required to successfully complete a minimum of 6 credit hours of graduate Chemistry courses with a minimum grade of B and to present ~~a Departmental seminar on a topic not directly related to the candidate's research (Chemistry 6002) as well as~~ a seminar describing the candidate's research (Chemistry 6003). Courses taken towards a Master's Degree may not be repeated. Candidates not holding a Master's Degree must successfully complete at least 12 credit hours of graduate Chemistry courses with a minimum grade of B in addition to Chemistry ~~6002 and~~ 6003.
5. Candidates are required to attend Departmental seminars.
6. Candidates must pass a comprehensive examination, as described in the **General Regulations**, according to one of the following descriptions:
  - a. A three-hour written part covering topics in Organic Chemistry, and, subsequent to the written examination at the discretion of the comprehensive examination committee, an oral exam designed to explore areas of perceived deficiency.
  - b. A paper on a research topic selected by the student in consultation with his/her supervisor and the examination committee, and subsequently, an oral examination designed to explore general areas of Analytical, Inorganic and/or Physical Chemistry and areas of chemistry related to the research topic.
7. Candidates must submit and successfully defend a thesis deemed acceptable by two internal and one external examiner as outlined in the **General Regulations**.

### 32.5.2 Courses

- 6002 Doctoral Seminar
- 6003 Doctoral Research Seminar
- 6110 Analytical Chemistry II
- 6150 Advanced Spectroscopic Techniques
- 6151 Analytical Separations and Organic Mass Spectrometry
- 6152 Electroanalytical Techniques
- 6153 Techniques in Sampling, Trace Analysis and Chemometrics
- 6154 Business Management and Good Laboratory Practice
- 6155 Computers in Instrumental Analysis and Basic Electronics (*same as Med 6070*)
- 6156 Analytical Method Development and Sampling
- 6160 Laboratory Projects in Sampling, Electroanalysis and Trace Analysis
- 6161 Laboratory Projects in Analytical Separations and Spectroscopic Techniques

- 6190-9 Selected Topics in Analytical Chemistry
- 6201 Bioinorganic Chemistry
- 6202 Main Group Chemistry
- 6204 Mechanisms in Catalysis
- 6205 Photochemistry of Transition Metal Complexes
- 6206 Green Chemistry
- 6210 Organometallic Chemistry
- 6290-9 Selected Topics in Inorganic Chemistry
- 6300 Quantum Chemistry I
- 6301 Quantum Chemistry II
- 6302 Molecular Spectroscopy
- 6304 Computational Chemistry I
- 6310 Electronic Structure Theory
- 6323 Chemical Thermodynamics I
- 6324 Chemical Thermodynamics II
- 6340 Biophysical Chemistry
- 6350 Electrochemical Kinetics
- 6360 Solid State Chemistry
- 6370 Nanoscale Phenomena
- 6380 Adsorption on Surfaces
- 6381 Surface and Interface Science
- 6382-9 Selected Topics in Physical Chemistry
- 6390-8 Selected Topics in Physical Chemistry
- 6399 Chemical Kinetics and Dynamics
- 6401 Organic Spectroscopic Analysis I
- 6402 Organic Spectroscopic Analysis II
- 6421 Natural Products Chemistry
- 6460 Organic Synthesis
- 6470 Physical Organic Chemistry
- 6490-9 Selected Topics in Organic Chemistry
- 6590-9 Selected Topics in Theoretical and Computational Chemistry
- 6600 Applications of Inorganic and Organometallic Chemistry to Toxicology