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, October 19, 2016, at 1 p.m. in C-2045.

AGENDA

1. Regrets

2. Adoption of the Minutes of September 21, 2016

3. Business Arising from the Minutes

4. Correspondence:
   a. Letter from Senate Committee on Undergraduate Studies regarding Date for Submission of Calendar Changes for 2017-2018, paper 4.a (1 page).

5. Reports of Standing Committees:
   A. Undergraduate Studies Committee:
      a. Department of Physics and Physical Oceanography, calendar changes for 17 Physics courses, paper 5.A.a (84 pages).
      c. Department of Computer Science, proposal for new course, COMP 1401, Computing at the Movies, paper 5.A.c (38 pages).
      e. Response to Senate Committee on Undergraduate Studies re: Proposal for Blended Learning Definition, paper 5.A.e (6 pages).

   B. Graduate Studies Committee:
      a. Department of Biochemistry, calendar changes including new courses, paper 5.B.a (15 pages).
      c. Department of Computer Science, proposal for new course, COMP 6933, cross-listed with MATH 6203, Nonlinear and Linear Optimization, paper 5.B.c (6 pages).
      d. Department of Computer Science, proposal for new course, COMP 6907, Data Mining Techniques and Methodologies, paper 5.B.d (4 pages).
      e. Department of Mathematics and Statistics, proposal for new course, MATH 6203, cross-listed with COMP 6933, Nonlinear and Linear Optimization, paper 5.B.e (7 pages).
C. Nominating Committee:
   a. Approval of committee matrix, paper 5.C.a (3 pages)

D. Library Committee: None

6. Reports of Chair in Teaching & Learning and Embedded DELTS Teaching Consultant

7. Reports of Delegates from Other Councils

8. Dean of Science Distinguished Teacher Award, for information only, paper 8 (3 pages).


10. Question Period

11. Adjournment

Mark Abrahams
Dean of Science
FACULTY OF SCIENCE
FACULTY COUNCIL OF SCIENCE
MINUTES OF MEETING OF SEPTEMBER 21, 2016

A meeting of the Faculty Council of the Faculty of Science was held on Wednesday, September 21, 2016, at 1:00 p.m. in room C-2045.

FSC 2442 Present
Biochemistry
Booth, V. Mulligan, M.E.

Chemistry
Fridgen, T.

Computer Science
Byrne, R.

Mathematics & Statistics
D. Dyer Haynes, R. Loredo-Osti, J.C. Radford, C. Sullivan, S.

Physics & Physical Oceanography
Curnoe, S. Lagowski, J. Morrow, M. Munroe, J. Plumer, M. Yethiraj, A.

Psychology
Neath, I.

Dean of Science Office
Abrahams, M. Foss, K. Foster, A. Harding, S. Mackenzie, T.
Newhook, R. Rideout, J. Zedel, L.

Economics
Kundhi, G.

Geography
Catto, N. Finnis, J.

CITL
Todd, A.
Regrettably,
Karen Dobbin-Williams  Collins Onodenalore
Garth Fletcher  Mary Stordy

Adoption of Minutes
Moved: Minutes of the April 27, 2016, meeting be adopted (Sullivan/Neath).
Carried. Two abstentions.

Business Arising: None

Correspondence:
Representatives from other academic councils were welcomed by the Dean and
invited to introduce themselves.

Reports of Standing Committees:
A. Undergraduate Studies Committee:
Shannon Sullivan, Chair, Undergraduate Studies Committee, reminded
members of Faculty Council that calendar changes for the 17/18 academic
year should be presented to departmental committees by the end of
October to ensure they are included on the December agenda of Senate.
He also advised that he and Andy Foster (Associate Dean, Undergraduate
and Administration) are drafting a revision of the Calendar section on
undergraduate degree regulations for the Faculty of Science. The current
section contains inconsistencies, obsolete language, and lack of clarity that
require correction. The draft will be circulated when complete.

B. Graduate Studies Committee:
Report presented by J.C. Loredo-Osti, Chair, Graduate Studies
Committee. He reminded members that calendar changes for graduate
programs should be presented to departmental committees earlier than undergraduate programs since they need to be included on the October agenda of Faculty Council to ensure they are approved for the 17/18 calendar.

a. Department of Computer Science, special topics course, COMP 6917, Complex Networks, presented to Faculty Council for information only.

b. Department of Earth Sciences, special topics course, EASC 6930, Seafloor Hydrothermal Processes, presented to Faculty Council for information only.

c. Department of Psychology, special topics course, PSYC 6116, Human Depth Perception: Normal and Abnormal Development, presented to Faculty Council for information only.

C. Nominating Committee:

a. Moved: Committee matrix be approved as presented with approval of completed matrix to be sought at the October meeting of Faculty Council (Foster/Sullivan). Carried.

D. Library Committee: None

FSC 2448 Reports of Chair in Teaching & Learning and Embedded DELTS Teaching Consultant:
Report presented by Amy Todd, Embedded Teaching Consultant, and Danny Dyer, Chair in Teaching and Learning

Faculty of Science Brown Bag Sessions are being introduced and will focus on fostering a teaching community in the faculty. The aim is to maintain an open, flexible environment with discussions that are community led. The first session will be September 27, 2016, hosted by speakers from Psychology and Mathematics and Statistics who will briefly discuss their department specific writing courses. Future sessions will occur approximately once a month and will be hosted within our various departments.

The Faculty of Science had success in the Teaching and Learning Framework competition. Little detail was provided here at the Dean elaborated on this point in his report.

There are new professional development opportunities on campus this Fall, mainly the re-emergence of a TA training program offered in October by SGS and CITL. Students from the Faculty of Science are registered for nearly half of the seats available. Also, the Program in Graduate Supervision offered by SGS and CITL has now moved out of the pilot stage and is offered this semester starting October 7th.

The Embedded Teaching Consultant will be contacting Department Heads again this Fall to set up meetings with the purpose of revisiting her role in their department and the services that can be offered, including, but not limited to, program development and curriculum mapping, specialized sessions for their
faculty and instructional staff, aiding in course re-design, and general instructional troubleshooting for their faculty and staff.

FSC 2449  **Reports of Delegates from Other Councils:**
Report presented by Alison Ambi, representative from the Library Council.

Council was reminded that feedback is required by October 3, 2016, about the Taylor & Francis journals. The Library is not aware yet of the amount of money it will have to save but decisions will have to be made on which journals will be maintained and input for these decisions is critical. It is hoped that the Faculty of Science representative to the Library Council will soon be determined so that a meeting can be arranged in the near future. The Associate Dean (Undergraduate and Administration) confirmed that the first meeting of the Library Committee is being scheduled and the representative should be appointed within a week.

FSC 2450  **Co-op Education Representation on Senate**
Presented by the Dean.

The Dean sought a motion to recommend alteration of Senate bylaws so that Academic Staff Members in Co-operative Education (ASM-CEs) could be considered eligible to be elected as Senate representatives for the Faculty of Science (Fridgen/Newhook). Discussion included whether there were historical reasons for having tenured vs. permanent faculty as members of Senate, whether ASM-CEs should be granted a voice on Senate through Co-operative Education or should be eligible to be voted for a seat on Senate through their Faculty or School, and the fact that decisions have been made in the past that ASM-CEs should have been involved with. **Carried. Two Opposed. Four Abstentions.**

FSC 2451  **Report of the Dean**
Presented by Mark Abrahams, Dean.

The Dean welcomed everyone back to Science council and the beginning of the 2016-2017 academic year. He particularly welcomed new faculty and student representatives to Science council and looks forward to working with them through this upcoming academic year.

Much has happened since the last meeting. At the last meeting the Dean advised Science Council that difficult financial times were ahead. This will likely continue for the remainder of his term as Dean. Difficult decisions had to be made but were done so to insure the quality of a Memorial University Science degree is maintained and enhanced. There were cuts to a number of areas but perhaps the most obvious was the closure of the Mathematics Learning Centre. The goal of this Centre was to assist students in the successful completion of Mathematics 1090 by having students successfully complete three non-credit foundation courses prior to attempting Math 1090. Those same students will now be provided with a modified form of Math 1090 that is taught over two semesters,
rather that within a single academic term. The Dean appreciates the efforts of the Faculty in the Mathematics & Statistics Department for developing and implementing this course.

Other challenges faced were all tenders received for the major construction component came in significantly beyond estimates provided by cost consultants, as well as independent assessments of the tender. As the building will not be pursued at any cost, the tender is being revised with the goal of having it come back within budget. It means that the building will have some changes in building material and mechanical systems but should still meet requirements. It will also mean a delay in when the building will open.

Senate is looking at a proposal to change the level of representation for academic units, driven by the establishment of three new deans at the Grenfell campus. Currently, the Faculty of Science is represented by 9 of the 50 senate appointments, which is the same as the Faculty of Humanities and Social Sciences. The new proposal would reduce Science representation to six senators, and provide no less than two senators to smaller units. The Dean feels that is a dramatic under representation of the Faculty of Science, but is a difficult argument to make when the Faculty consistently fails to fill the senate positions that are currently allocated.

Lastly, Jan Hopkins decided to retire as the Faculty of Science Grants Facilitation Officer as of September 16, 2016. Those that have worked with Jan know her intense dedication and commitment to work on their behalf, and the Dean would like to extend thanks on everyone’s behalf and wish her all the best in the next phase of her life.

Despite these issues, it is the Dean’s belief that the future for the Faculty of Science is very bright. Reasons for this optimism are that the Federal Government has recognized the importance of the construction of the Core Science Facility and they are committing nearly $100M in funding towards its construction. They have also committed partial support for the construction of a new Animal Care facility. Both are critically important as we take first steps in renewing research infrastructure.

The Faculty was also very successful in the Teaching Learning Framework Competition. Both unit applications led by Michael Katz from Chemistry and Rick Goulding from Physics were successful. The Faculty of Science also participated in eight collaborative projects of which five were funded. University wide, 37 applications were submitted of which 14 were funded. The Dean thanks all involved who took the time to submit these applications as it speaks to their passion and enthusiasm about further improving the academic environment for students.
Finally, the Canada First Research Excellence Fund that was developed by Memorial, Dalhousie and UPEI was successful, and spectacularly so. The proposal received the largest award in this competition, $93.7M in federal funding plus $133M in partner support. There are a couple of reasons why this is so important. First, it is validation by an international expert panel that what we do as an institution in the area of ocean studies is world class. It also demonstrated that appropriately implemented, the funding provided by this opportunity can and should make us world leading. It proved that we can work effectively and constructively with our partners in Atlantic Canada to achieve our shared vision. And, it also affirmed that there should be no limits to what we dare to achieve.

**FSC 2452**  
*Question Period*

**FSC 2453**  
*Adjournment*  
The meeting adjourned at 1:41 p.m.
26 September 2016

TO: Deans and Department Heads (St. John’s Campus), Vice-President (Grenfell Campus and Marine Institute) Chairpersons and Secretaries, Academic Councils (Faculties/Schools/Grenfell Campus/Marine Institute)

FROM: Secretary, Senate Committee on Undergraduate Studies

SUBJECT: Date for Submission of Calendar Changes – 2017-2018

I am writing to advise you about deadlines for submission of changes for the 2017-2018 University Calendar. In order to meet deadlines for publication, all calendar changes, including changes to existing courses and programs and proposals for new courses and programs, must be presented to Senate for approval not later than the February meeting which is scheduled for 14 February 2017. As you know, items must go through a number of levels of approval from faculty/school/campus/institute undergraduate studies committees and academic councils, to the Senate Committee on Undergraduate Studies before being submitted to the Executive Committee of Senate for Senate. This means that submissions intended for next year’s calendar should be forwarded to your undergraduate studies committees as soon as possible. Meeting times for Senate, the Executive Committee of Senate and the Senate Committee on Undergraduate Studies are as follows and I have indicated the dates by which submissions must be received by the Senate Committee on Undergraduate Studies in order to be included on the Senate agenda for its meeting in February.

Senate: Meets 14 February 2017
Executive Committee of Senate: Meets 26 January 2017
Senate Committee on Undergraduate Studies: Meets 5 January 2017; items to be considered at this meeting must be received by the Secretary of the Committee no later than Tuesday, 13 December 2016, and must be approved without revisions at that meeting. Any calendar changes requiring revisions or further consultation cannot meet publication deadlines.

In order to expedite the approval process, Senate asks that the Senate Committee on Undergraduate Studies seek uniformity in submissions from various academic units and, to that end, four individual forms are available for submission of calendar changes. These forms have been designed to provide guidance regarding the information that is required for approval of academic proposals and must be used by academic units for any changes being submitted for the University Calendar. When preparing calendar changes, special attention should be given to the Executive Summary, Library Holdings and Consultation sections of the forms.

The forms are available in both Word Perfect and MS-Word versions at www.mun.ca/regoff/home/ under Related Links (Forms for Calendar Changes) and (Forms) (Other Forms) (Forms for Calendar Changes). A distribution list to use for consultation on calendar changes has also been posted on the website. If you are new to the calendar change process or have any questions regarding the forms or documents, please contact Linda Noseworthy, Recording Secretary of the Senate Committee on Undergraduate Studies (scugs@mun.ca; phone 864-4421).

In order to further expedite the approval process and to provide documentation to Senate that is clear and concise, the Senate Committee on Undergraduate Studies is asking that calendar changes be forwarded for approval from one level to the next electronically in both MS-Word/Word Perfect and PDF versions.

If you have any questions regarding the above, please get in touch with me by phone at 864-4110 or by e-mail at scugs@mun.ca.

Thank you,

Jennifer Porter
Deputy Registrar and Secretary to the Committee

JP/mm

cc: Chairpersons and Secretaries, Undergraduate Studies Committees

PS: Please forward this memorandum to all staff in your academic unit who are involved in the preparation of calendar changes.
October 4, 2016

TO: All Members, Faculty Council of Science
FROM: Joan Burry, Secretary
Committee on Undergraduate Studies, Faculty of Science
SUBJECT: Calendar Changes and New Course Proposals

At a meeting held on September 29, 2018, the Undergraduate Studies Committee of the Faculty of Science agreed that the following items be forwarded to Faculty Council for approval:

1. Department of Physics and Physical Oceanography
   - Changes to course descriptions, including some prerequisite changes, for 17 Physics courses

2. Department of Computer Science
   (i) Calendar change to amend the prerequisite for Computer Science 2718
   (ii) Proposal for new course Computer Science 1401: Computing at the Movies

3. Department of Mathematics and Statistics
   - Calendar change to the program regulations pertaining to the usage limitations on Mathematics 1050 and 1051

Joan Burry
Associate Registrar and
Secretary, Committee
on Undergraduate Studies,
Faculty of Science
Proposal from the Department of Physics and Physical Oceanography to Amend Several Course Calendar Entries

The Department of Physics and Physical Oceanography has initiated a review of all of its undergraduate course calendar entries.

These will be submitted for consultation and approval in blocks of 2-5 courses, by subject area, over the coming months.

Attached are amendment proposals for our five quantum courses: PHYS 2750, 3750, 3751, 4850, and 4851.

Feedback is requested by May 17, 2016.

Thank you.

Martin Plumer, Chair, Undergraduate Studies Committee (plumer@mun.ca)

Jolanta Lagowski, Head (jolantak@mun.ca).

April 11, 2016.
Proposal
Amend Calendar Entry PHYS 2750

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs

• None.

Consultations

• Faculty of Science.
• Grenfell Campus
• Marine Institute
• Faculty of Engineering

Library Holdings and/or Other Resources Required

• No new Library resources required.

Signature of Unit Head (if appropriate): ____________________________

Date: ________________________________________

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

Date: ________________________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title
Physics 2750 Modern Physics

Abbreviated Course Title
Modern Physics

Calendar Change(s)
2750 Modern Physics covers special relativity, quanta of light, atomic structure and spectral lines, quantum structure of atoms and molecules, nuclei and elementary particles. explores the fundamental ideas that are still driving technological developments. Einstein's theory of special relativity, and the microscopic world described by quantum physics are introduced through crucial historical observations. The course covers the dual nature of light and particles, quantum well and quantum tunneling phenomena, which play a key role in modern electronics. Atomic and nuclei structure, and elementary particles are also described.
CO: Mathematics 1001 and Phys 1051 (or PHYS 1021 with a minimum average of 70%)
CR: Phys 2056
PR: Mathematics 1001 and Phys 1051 (or PHYS 1021 with a minimum average of 70%)

Rationale
Course description is out of date. The proposed wording better reflects what is currently being taught in the course. PHYS 1021 is added as a possible replacement for the CO/PR PHYS 1051 since the material relevant to PHYS 2750 is covered in both of these two courses.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus  Yes/No
2. Marine Institute  Yes
3. Department of Biochemistry  Yes
4. Department of Biology  Yes/No
5. Department of Chemistry  Yes
6. Department of Computer Science  Yes/No
7. Department of Earth Sciences  Yes/No
8. Department of Ocean Sciences  Yes
9. Department of Psychology  Yes/No
10. Department of Mathematics and Statistics  Yes/No
11. Engineering  Yes

Library Report Received

- Yes

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

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:

Secretary:

Date:
Proposal
Amend Calendar Entry PHYS 3750

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
• None.

Consultations
• Faculty of Science.
• Grenfell Campus
• Marine Institute
• Faculty of Engineering

Library Holdings and/or Other Resources Required
• No new Library resources required.

Signature of Unit Head (if appropriate): ________________________________

Date: ________________________________

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

Date: ________________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title
Physics 3750 Quantum Physics I

Abbreviated Course Title
Quantum Physics I

Calendar Change(s)
3750 Quantum Physics I covers wave particle duality of nature, Introduction to Quantum Mechanics, Schrodinger equation. One electron atom. Quantum statistics. introduces the foundational techniques that are required to understand the physics of atoms and molecules. Beginning with the wave-particle duality of nature, the wave function and the time-independent Schrodinger equation, techniques to calculate wave functions and macroscopic observables in simple one-dimensional models are covered. The three-dimensional hydrogen atom, the simplest real-life system that allows for a quantitative quantum description, is then examined in detail. CO: PHYS 3220 and 3810 or Mathematics 3202 2000. PHYS 3220 is recommended. PR: PHYS 2750 (or 2056 or CHEM 2302), 3220 and 3810 (or Mathematics 3202 2000). PHYS 3220 is recommended.

Rationale
Course description is out of date. The proposed wording better reflects what is currently being taught in the course. PHYS 3810 is an inactive course. Mathematics 2000 is viewed as containing more relevant material than Mathematics 3202. CHEM 2302 essentially covers the same material as PHYS 2750 that is relevant for PHYS 3750. PHYS 3220 would be useful for students as a PR/CO but not essential.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus Yes/No
2. Marine Institute Yes
3. Department of Biochemistry Yes
4. Department of Biology Yes/No
5. Department of Chemistry Yes
6. Department of Computer Science Yes/No
7. Department of Earth Sciences Yes/No
8. Department of Ocean Sciences Yes
9. Department of Psychology Yes/No
10. Department of Mathematics and Statistics Yes/No
11. Engineering Yes

Library Report Received

- Yes

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

Name

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Chair:

Secretary:

Date:
Proposal
Amend Calendar Entry PHYS 3751

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate): ________________________________

Date: ________________________________

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

Date: ________________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title
Physics 3751 Quantum Physics II

Abbreviated Course Title
Quantum Physics II

Calendar Change(s)
3751 Quantum Physics II covers multielectron atoms, Molecules, Solids—conductors and semiconductors, Superconductors, Magnetic properties, Nuclear models, Nuclear decay and nuclear reactions. Properties and interactions of elementary particles. is an introduction to the physics of elementary particles. After a brief overview of special relativity and non-relativistic quantum mechanics, this course covers relativistic quantum mechanics (Klein-Gordon and Dirac equations, antiparticles, spin, transition probability, and Feynman diagrams) and particle physics (leptons and quarks, strong and weak interaction, conservation laws, and standard model of elementary particles). PR: PHYS 3750

Rationale
Course description is out of date. The proposed wording better reflects what is currently being taught in the course.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus  Yes/No
2. Marine Institute  Yes
3. Department of Biochemistry  Yes
4. Department of Biology  Yes/No
5. Department of Chemistry  Yes
6. Department of Computer Science  Yes/No
7. Department of Earth Sciences  Yes/No
8. Department of Ocean Sciences  Yes
9. Department of Psychology  Yes/No
10. Department of Mathematics and Statistics  Yes/No
11. Engineering  Yes

Library Report Received

- Yes

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

Name

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Chair:

Secretary:

Date:
Proposal
Amend Calendar Entry PHYS 4850

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate): ________________________________

Date: ________________________________

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

Date: ________________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title

Physics 4850: Quantum Mechanics

Abbreviated Course Title

Quantum Mechanics

Calendar Change(s)

4850 Quantum Mechanics examines postulates of quantum mechanics. Operators and operator algebra. Matrix representations. Spin and magnetic fields. Approximation methods: WKB method, time independent perturbation theory, time dependent perturbation theory, variational methods. Elementary scattering theory. Is a mathematically based course that covers: the postulates of quantum mechanics; Hermitian operators; \( x, p \) and matrix representations of quantum mechanics; the harmonic oscillator; spin and orbital angular momentum and addition of angular momentum; stationary perturbation theory; time dependent perturbation theory.
PR: PHYS 3230, 3750, and 3820 or waiver approved by the instructor.

Rationale

Course description is out of date. The proposed wording better reflects what is currently being taught in the course. After careful review, it has been decided that the material covered in PHYS 3230 (Classical Mechanics II) is not required for 4850. In addition, the optional waiver is implicitly true for all of our courses and need not be stated explicitly.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus          Yes/No
2. Marine Institute         Yes
3. Department of Biochemistry Yes
4. Department of Biology     Yes/No
5. Department of Chemistry   Yes
6. Department of Computer Science Yes/No
7. Department of Earth Sciences Yes/No
8. Department of Ocean Sciences Yes
9. Department of Psychology  Yes/No
10. Department of Mathematics and Statistics Yes/No
11. Engineering               Yes

Library Report Received

- Yes

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

Name

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Chair:

Secretary:

Date:
Proposal
Amend Calendar Entry PHYS 4851

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate): ________________________________
Date: ________________________________

Signature of Dean/Associate Vice-President (Academic)/Vice-President:
______________
Date: ________________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title

Physics 4851: Advanced Quantum Mechanics

Abbreviated Course Title

Advanced Quantum

Calendar Change(s)

4851 Advanced Quantum Mechanics covers general formulation of quantum mechanics, measurement theory and operators. Hilbert spaces. Advanced topics selected from: electron in a strong magnetic field and the Aharonov-Bohm effect; advanced scattering theory; systems of identical particles; Feynman path integral formulation of quantum mechanics; relativistic quantum mechanics; second quantization; symmetry and group theory; density matrix and mixtures. Is a continuation of PHYS 4850 that covers: density operators; unitary operators, including symmetry operations and the time-evolution operator; gauge transformations and Berry's phase; quantum mechanical entanglement; systems of identical particles.
PR: PHYS 4850 and 4820 the former 3821 or waiver approved by the instructor

Rationale

Course description is out of date. The proposed wording better reflects what is currently being taught in the course. PHYS 3821 was re-numbered 4820 some time ago. In addition, the optional waiver is implicitly true for all of our courses and need not be stated explicitly.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

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Library Report Received

- Yes

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

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:
Secretary:
Date:
From: Engineering Consultations [engrconsult@mun.ca]
Sent: April-12-16 4:15 PM
To: Martin Plumer
Cc: Barrington, Kaela; Andrew Fisher
Subject: Re: Consultation Physics Quantum Courses

Dear Dr. Plumer,

Thank you for the opportunity to comment on proposed Calendar changes to the set of five courses in quantum mechanics/physics. Prof. Fisher and I have reviewed these changes on behalf of our Committee on Undergraduate Studies, which is not scheduled to hold its next meeting until the day after your deadline for replies. In our opinion, these changes will have no impact on our programs and they improve the accuracy of the Calendar descriptions of these courses.

However I note one small point. For PHYS 2750 the identical courses appear as both prerequisites (PR) and corequisites (CO). A prerequisite must be completed before the course in question, while a corequisite may be taken concurrently. The entire "PR" line should be deleted.

Similarly, for PHYS 3750, two courses appear in both the corequisite and prerequisite (PR) lines. The text ", 3220 and Mathematics 3202" should be deleted from the PR line.

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

From: Burry, Joan [jburry@mun.ca]
Martin,

Having a co-requisite only listed will allow for a student to have already completed the course (i.e. the registration system will look for the course as a prerequisite). However, I think it is clearer to have both indicated and there are many examples of that in the Calendar.

Joan

-----Original Message-----
From: Martin Plumer [mailto:plumer@mun.ca]
Sent: April 13, 2016 3:04 PM
To: Burry, Joan
Subject: FW: FW: Consultation Physics Quantum Courses

Hi Joan,

Can you help clarify this question?

Martin

-----Original Message-----
From: Shannon Patrick Sullivan [mailto:shannon@mun.ca]
Sent: April-13-16 2:58 PM
To: Martin Plumer
Subject: Re: FW: Consultation Physics Quantum Courses

Hi Martin,

I seem to recall that there's an operational reason for listing the courses as
both pre- and co-requisites. I think (but could be misremembering) it's that, if a course is listed exclusively as a co-requisite, then Banner will only check to see if the course is being taken concurrently, so students have taken it as a prerequisite would be inadvertently barred from registration.

I'd suggest you double-check with Joan Burry -- she'll know for sure.

Shannon

On 13/04/2016 8:37 AM, Martin Plumer wrote:
Hi Shannon,

What do you think about these suggestions?
Martin

From: Biochemistry Head [biochead@mun.ca]
Sent: April-13-16 4:20 PM
To: Martin Plumer
Subject: RE: Consultation Physics Quantum Courses

Martin
Nothing but good wishes for the changes from Biochemistry.
Mark D. Berry Ph.D.
Professor and Head
Dept. Biochemistry
Memorial University of Newfoundland
St. John's, NL, Canada
A1B 3X9
From: Fletcher, Garth [fletcher@mun.ca]
Sent: May-11-16 1:05 PM
To: plumer@mun.ca
Subject: Consultation Physics Quantum Courses: PHYS 2750, 3750, 3751, 4850, and 4851.

Hi Martin: Our Undergraduate Studies Committee reviewed the proposals and responded as follows:
The file was circulated among the committee members. We all feel it looks fine. The only minor comment: In the title of the document, "...to several amend..." should be changed to "...to amend several...". Cheers Annie Mercier

Best regards
Garth

Garth L. Fletcher
Head and Professor Emeritus
Department of Ocean Sciences
Ocean Sciences Centre
0 Marine Lab Road
St John's NL
Canada
AiC 5S7

Tel: 709-864-3276
Fax: 709-864-3220
From: Martin Plumer [plumer@mun.ca]
Sent: April-23-16 9:12 AM
To: 'Travis Fridgen'
Subject: RE: FW: Consultation Physics Quantum Courses

Hi Travis,

This is now what the department is now proposing for PHYS 3750. Should help.

CO: Mathematics 2000. PHYS 3220 is recommended.
PR: PHYS 2750 (or 2056 or CHEM 2302), and Mathematics 2000. PHYS 3220.

I will let you know when it is approved.

Best,
Martin

From: Travis Fridgen [mailto:chemhead@mun.ca]
Sent: April-23-16 5:13 AM
To: Martin Plumer
Subject: Re: FW: Consultation Physics Quantum Courses

Hi Martin,

Sorry for the delay. I echo Chris' comments. Unfortunately, I think that requiring them to have
3202 would limit the number of chemistry students who would (be able to) take it, with our
degrees so full. If it is required then there is probably nothing that can be done.

Take care,
Travis

On 18/04/2016 10:50 AM, Martin Plumer wrote:
Hi Travis,
Will PHYS 3220 be a show stopper?

Martin

From: Ivan Saika-Voivod [mailto:saika@mun.ca]
Sent: April-18-16 10:41 AM
To: Martin Plumer
Cc: 'Entcho Demirov'; 'James Munroe'; 'Qiyung Chen'; 'Rick Goulding'; 'Stefan Wallin'
Subject: Re: Consultation Physics Quantum Courses

Will the chemists have PHYS 3220 - classical mechanics?

Dr. Ivan Saika-Voivod, Associate Professor
Department of Physics and Physical Oceanography, Memorial
University of Newfoundland
Tel: 709-864-8886, Fax: 709-864-8739, http://www.physics.mun.ca/~saika/

On 2016-04-18, at 10:36 AM, Martin Plumer wrote:

Dear USC Members,

Regarding the proposed Calendar changes for our 5 Quantum courses, Chemistry has made a request to include CHEM 2302 as an alternate pre-requisite for PHYS 3750. See Below.

The idea is that CHEM 2302 covers the same relevant material as PHYS 2750. Jolanta, Stephanie, Anand, Guy, Rick, and I agree. Just to be clear, we are proposing to modify the PR for PHYS 3750 from

PR: PHYS 2750 (or 2056), 3220, and Mathematics 3202

to
PR: PHYS 2750 (or 2056 or CHEM 2302), 3220, and Mathematics 3202

Please let me know if you have any objections to this proposal.

Thanks.
Martin

-----Original Message-----
From: Travis Fridgen [mailto:chemhead@mun.ca]
Sent: April-14-16 10:40 AM
To: Martin Plumer
Subject: Fwd: Consultation Physics Quantum Courses

Hi Martin,

Chris Rowley asked the following question and I think it is worth it for a few of our physical chemistry type students if it was possible. With some impending retirements, we may not be able to offer our advanced quantum chemistry in the foreseeable future. Is it possible that students might be able to take PHYS 3750 having our 2302 (I have attached the curriculum and a sample exam) Mathematics 3202? Even if they had to have a certain grade in 2302 as the prerequisite might this work?

Thanks and take care,
Travis

--
Travis D. Fridgen BSc, BEd, PhD
Professor and Head
Department of Chemistry
From: Dawn King [Dawn.King@mi.mun.ca] on behalf of MIUG Consultations
[MIUGconsultations@mi.mun.ca]
Sent: April-14-16 2:58 PM
To: Martin Plumer
Subject: RE: Consultation Physics Quantum Courses

Martin,

Thank you for the opportunity to review and comment on the proposed changes to the course outlines of PHYS 2750, 3750, 3751, 4850, and 4851.

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

Derek

Derek Howse
Chair, Undergraduate Studies Committee
Marine Institute, Memorial University
TEL: 709-778-0586
FAX: 709-778-0394
Derek.Howse@mi.mun.ca
TO: Martin Plumer, Chair, Undergraduate Studies Committee
    Jolanta Lagowski, Head, Physics & Physical Oceanography

FROM: Alison Ambi, Science Research Liaison Librarian

DATE: 26 April 2016

RE: Library evaluation for calendar changes to five quantum physics courses.

I have reviewed the proposed edits to the calendar entries for PHYS 2750, 3750, 3751, 4850, and 4851 distributed on April 11, 2016 and have determined that the changes will have no impact on library resources.
Proposal from the Department of Physics and Physical Oceanography to Amend Several Course Calendar Entries

The Department of Physics and Physical Oceanography has initiated a review of all of its undergraduate course calendar entries.

These will be submitted for consultation and approval in blocks of 2-5 courses, by subject area, over the coming months.

Attached are amendment proposals for our three electromagnetism courses: PHYS 2055, 3500, and 4500.

Feedback is requested by August 15, 2016.

Thank you.

Martin Plumer, Chair, Undergraduate Studies Committee (plumer@mun.ca)

Jolanta Lagowski, Head (jolantal@mun.ca).

June 2, 2016.
Proposal
Amend Calendar Entry PHYS 2055

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate):

Date:

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

Date:
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title
Physics 2055 General Physics V: Electricity and Magnetism

Abbreviated Course Title
General Physics V

Calendar Change(s)
2055 Electricity and Magnetism examines Gauss's Law, the electrostatic potential, capacitance, magnetic force and the magnetic field, electromagnetic induction, magnetic materials, ac circuits, superconductivity, the displacement current and Maxwell's equations. General Physics V: Electricity and Magnetism builds upon the concepts of electric and magnetic forces and fields, Gauss's Law, electric potential and electromagnetic induction introduced in PHYS 1051, expanding them to introduce capacitance, their application in DC and AC circuits, electromagnetic waves, wave optics, and geometric optics.

CO: Mathematics 2000
LH: 3
PR: Mathematics 2000 and PHYS 1051

Rationale
Course description is out of date. The proposed wording better reflects what is currently being taught in the course. Additional information on labs should be helpful.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus
2. Marine Institute
3. Department of Biochemistry
4. Department of Biology
5. Department of Chemistry
6. Department of Computer Science
7. Department of Earth Sciences
8. Department of Ocean Sciences
9. Department of Psychology
10. Department of Mathematics and Statistics
11. Engineering

Library Report Received

- Yes

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

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:
Secretary:
Date:
Proposal
Amend Calendar Entry PHYS 3500

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate): __________________________

Date: __________________________

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

Date: __________________________
Course Number and Title
Physics 3500 Electromagnetic Fields I

Abbreviated Course Title
Electromagnetic Fields I

Calendar Change(s)

3500 Electromagnetic Fields I examines electrostatic field: field, potential, Poisson's equation, Laplace's equation, capacitance, dielectrics, polarization, electric displacement, boundary conditions. Magnetic Field: electric current and magnetic field, vector potential, Lorentz force and relativity, changing magnetic field, inductance, magnetic materials, magnetization, Maxwell's equations. The laws of electrostatic and magnetostatic fields based on vector calculus and a local formulation. Topics covered include Gauss's law, potentials, energy and work, the multipole expansion, Laplace's equation and boundary conditions, linear dielectrics, electric polarization, electric displacement, capacitance, magnetic fields B and H, vector potentials, Lorentz force, magnetization and Maxwell's equations.
PR: PHYS 2055 and 3810 (or Mathematics 3202)
CR: Engineering 5812

Secondary Calendar Changes
Add to ENGI 5812 Basic Electrodynamics

CR: Physics 3500

Rationale
Course description is out of date. The proposed wording better reflects what is currently being taught in the course. PHYS 3810 is an inactive course. New CR with Engineering courses suggested by Electrical Engineering.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus
2. Marine Institute
3. Department of Biochemistry
4. Department of Biology
5. Department of Chemistry
6. Department of Computer Science
7. Department of Earth Sciences
8. Department of Ocean Sciences
9. Department of Psychology
10. Department of Mathematics and Statistics
11. Engineering

Library Report Received

- Yes

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

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:

Secretary:

Date:
Proposal
Amend Calendar Entry PHYS 4500

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs

- None.

Consultations

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required

- No new Library resources required.

Signature of Unit Head (if appropriate): ____________________________

Date: ____________________________

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

Date: ____________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title
Physics 4500 Electromagnetic Fields II

Abbreviated Course Title
Electromagnetic Fields II

Calendar Change(s)

4500 Electromagnetic Fields II covers multipole expansions, electrostatic fields as boundary value problems, polarizability of molecules in dielectric media, Clausius-Mossotti relation, gauges. Electromagnetic Waves: Poynting’s theorem, reflection and transmission of electromagnetic waves, cavity resonators, wave guides. Electromagnetic Radiation: dipoles, antennas, quantum mechanics and electromagnetic interactions. Selected topics in electrodynamics and applied electromagnetism, electrodynamics and the applications of Maxwell’s equations. Topics covered include electrodynamics (Maxwell’s equations and boundary conditions), conservation laws (continuity equation, Poynting’s theorem, and momentum conservation), electromagnetic waves (wave properties, reflection and transmission, absorption and dispersion, guided waves), radiation (potential and fields, dipole radiation, and radiation from point charges), and relativistic electrodynamics. Selected topics in electrodynamics and applied electromagnetism may be introduced.
PR: PHYS 3500 and 3820 or waiver approved by the instructor
CR: Engineering 6813

Secondary Calendar Changes

Add to ENGI 6813 Electromagnetic Fields

CR: Physics 4500

Rationale
Course description is out of date. The proposed wording better reflects what is currently being taught in the course. New CR with Engineering courses suggested by Electrical Engineering.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus: Yes/No
2. Marine Institute: Yes
3. Department of Biochemistry: Yes/No
4. Department of Biology: Yes/No
5. Department of Chemistry: Yes/No
6. Department of Computer Science: Yes/No
7. Department of Earth Sciences: Yes
8. Department of Ocean Sciences: Yes/No
9. Department of Psychology: Yes/No
10. Department of Mathematics and Statistics: Yes
11. Engineering: Yes

Library Report Received

- Yes

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

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:

Secretary:

Date:
From: Math Consult [mathconsult@mun.ca]
Sent: June-02-16 2:58 PM
To: Martin Plumer
Subject: Re:

On 02/06/16 08:29 AM, Martin Plumer wrote:
The Department of Physics and Physical Oceanography has initiated a review of all of its undergraduate course calendar entries.
These will be submitted for consultation and approval in blocks of 2-5 courses, by subject area, over the coming months.
Attached are amendment proposals for three courses: PHYS 2055, 3500, and 4500.
Feedback is requested by Aug. 15.
The Department of Mathematics and Statistics has no objections to the proposed changes.

However, on a pedantic note, we wish to observe that the change of "Mathematics" to "MATH" in the Calendar entries for Physics 2055 and Physics 3500 should be reversed. Calendar style dictates that the four-letter prefix should be used only for the academic unit which offers the course.

Regards,
Shannon

--

Dr. Shannon Patrick Sullivan
Dept. of Mathematics & Statistics
Senior Faculty Advisor, Faculty of Science
Memorial University of Newfoundland
St. John's · NL · Canada
shannon@mun.ca · www.ues.mun.ca/~shannon
From: Dr Alison Leitch [aleitch@mun.ca]  
Sent: June-03-16 4:20 PM  
To: plumer@mun.ca  
Cc: Elliott Burden; Tao Cheng; Robbie Hicks; Graham Layne; Alison Leitch; Michelle Miskell; Stacey Parmenter; physicshead@mun.ca  
Subject: Re: 

Hi Martin,

I see no issues with your proposals for PHYS 3500 and 4500.

The only comment I would make about the proposed changes to PHYS 2055 is to ask do you REALLY want to move from a descriptive course title like E&M, to the abbreviated, uninformative title of "General Physics V"? This is what will appear on the student transcripts.

I mention this because a few years ago we changed the course titles of our geophysics program from "Exploration Geophysics I, II, III" (etc) to titles that reflected their content. Even the teachers of the courses kept forgetting which course is which. It makes it more difficult for someone looking at a transcript to judge the background of the student. Course numbers are not items that many people reserve brain space for.

Regards,

Alison
(co-chair, UGMC Earth Sciences)
From: Dawn King [Dawn.King@mi.mun.ca] on behalf of MIUG Consultations
[MIUGconsultations@mi.mun.ca]
Sent: June-14-16 9:00 AM
To: Martin Plumer
Subject: RE:

Dr. Plumer,

Thank you for the opportunity to review and comment on the proposed changes to the course calendar descriptions for PHYS 2055, 3500 and 4500.

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

All the best.
Derek

Derek Howse
Chair, Undergraduate Studies Committee
Marine Institute, Memorial University
TEL: 709-778-0586
FAX: 709-778-0394
Derek.Howse@mi.mun.ca
Dear Dr. Plumer,

Thank you for the opportunity to comment on the proposed minor changes to the courses PHYS 2055, 3500, and 4500.

At its next regular meeting, the Committee on Undergraduate Studies of the Faculty of Engineering and Applied Science will consider these changes. In the interim, the Head of the Department of Electrical and Computer Engineering, Dr. Dennis Peters, recommends that you consider adding credit restrictions between PHYS 3500 "Electromagnetic Fields I" and ENGI 5812 "Basic Electromagnetics" and also between PHYS 4500 "Electromagnetic Fields II" and ENGI 6813 "Electromagnetic Fields".

Therefore to
PHYS 3500 "Electromagnetic Fields I" add "CR:  Engineering 5812",
to
PHYS 4500 "Electromagnetic Fields II" add "CR:  Engineering 6813"
and add secondary Calendar changes:
to
ENGI 5812 "Basic Electromagnetics" add "CR:  Physics 3500"
and to
ENGI 6813 "Electromagnetic Fields" add "CR:  Physics 4500".

If any other comments arise at the meeting of June 15, then I shall contact you again.

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
TO: Martin Plumer, Chair, Undergraduate Studies Committee
   Jolanta Lagowski, Head, Physics & Physical Oceanography

FROM: Alison Ambi, Science Research Liaison Librarian

DATE: 3 June 2016

RE: Library evaluation for proposed calendar changes to the physics courses on electromagnetism.

I have reviewed the proposed edits to the calendar entries for three electromagnetism courses: PHYS 2055, 3500, and 4500 distributed in June 2016 and have determined that the changes will have no impact on library resources.
Proposal from the Department of Physics and Physical Oceanography to Amend Several Course Calendar Entries

The Department of Physics and Physical Oceanography initiated a review of all of its undergraduate course calendar entries in the Fall of 2015.

Attached are the final amendment proposals, for our two photonics courses, PHYS 3600 and 4600.
Feedback is requested by September 15, 2016.

Thank you for all your help with improving our course Calendar entries over the past year.
Martin Plumer, Chair, Undergraduate Studies Committee (plumer@mun.ca)
Jolanta Lagowski, Head (physicshead@mun.ca).
August 4, 2016.

Proposal
Amend Calendar Entry PHYS 3600
Executive Summary

Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs

- None.

Consultations

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required

- No new Library resources required.

Signature of Unit Head (if appropriate): ________________________________

Date: ________________________________

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

Date: ________________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title

Physics 3600: Optics and Photonics I

Abbreviated Course Title

Optics and Photonics I

Calendar Change(s)

3600 Optics and Photonics I covers geometrical Optics: thin lenses, mirrors, optical systems. Two-beam and multiple-beam interference phenomena. Fraunhofer Diffraction. Introduction to Maxwell's Theory: reflection, transmission, and polarization. Modulation of light waves. Fibre-optical light guides: intermodal dispersion, index profiles, loss mechanisms, single mode fibres. Optical communication systems: free-space and fibre systems, emitters, detectors, amplifiers, wavelength division multiplexing, integrated optics. topics in geometrical and physical optics and applications of associated phenomena, principles, and concepts to photonics. Topics include geometrical optics (thin lenses, mirrors, and optical instruments), physical optics (two-beam and multiple-beam interference, Fraunhofer diffraction, reflection, transmission, and polarization), and applications (fibre-optic light guides, modulation of light waves, and optical communication systems).

PR: Mathematics 2000 and PHYS 2055

Rationale

Course description is out of date. The proposed wording better reflects what is currently being taught in the course.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

1. Grenfell Campus Yes/No
2. Marine Institute Yes
3. Department of Biochemistry Yes/No
4. Department of Biology Yes/No
5. Department of Chemistry Yes/No
6. Department of Computer Science Yes/No
7. Department of Earth Sciences Yes/No
8. Department of Ocean Sciences Yes/No
9. Department of Psychology Yes/No
10. Department of Mathematics and Statistics Yes/No
11. Engineering Yes

Library Report Received

- Yes

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

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:
Secretary:
Date:
Proposal
Amend Calendar Entry PHYS 4600

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate): ________________________________
Date: ________________________________

Signature of Dean/Associate Vice-President (Academic)/Vice-President: ________________________________
Date: ________________________________
Course Number and Title

Physics 4600: Optics and Photonics II

Abbreviated Course Title

Optics and Photonics II

Calendar Change(s)

4600 Optics and Photonics II is a review of basic topics in wave optics. Phase-sensitive imaging, Electromagnetic waves in anisotropic media. Scattering of electromagnetic waves. The physics of light sources and applications. Non-linear optics and applications, covers principles of lasers, interactions of laser light and matter, and new development in the fields of optics and photonic. Topics include wave optics, optical resonators, interaction of radiation and atomic systems, principles and techniques of lasers, nonlinear optics and devices, guided-wave optics, and fibre-optic communication. Recent development in the fields, such as photonic crystal optics, ultrafast optics, and nano-optics will be introduced.

CO: PHYS-3754
PR: PHYS 3500, and 3600, and PHYS 3751 or waiver approved by the instructor

Rationale

Course description is out of date. The proposed wording better reflects what is currently being taught in the course. PHYS 3751 (Quantum Physics II) is no longer considered a necessary CO/PR.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus  
2. Marine Institute  
3. Department of Biochemistry  
4. Department of Biology  
5. Department of Chemistry  
6. Department of Computer Science  
7. Department of Earth Sciences  
8. Department of Ocean Sciences  
9. Department of Psychology  
10. Department of Mathematics and Statistics  
11. Engineering

Library Report Received

- Yes

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

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:

Secretary:

Date:
From: Engineering Consultations [engrconsult@mun.ca]
Sent: August-20-16 7:37 AM
To: Martin Plumer
Cc: physicshead@mun.ca; Andrew Fisher; dpeters@mun.ca
Subject: Re: FINAL Proposed Calendar Changes in Physics: Photonics courses
Dr. Plumer,
On rare occasions an Engineering student might take one of these courses.
There is therefore little impact on this Faculty.
We support these updates to the Calendar descriptions.
Dr. Glyn George, Chair
Committee on Undergraduate Studies
Faculty of Engineering and Applied Science Memorial University of Newfoundland
St. John's NL A1B 3X5

From: Dawn King [Dawn.King@mi.mun.ca] on behalf of MIUG Consultations
[MIUGconsultations@mi.mun.ca]
Sent: August-30-16 10:45 AM
To: Martin Plumer
Subject: RE: FINAL Proposed Calendar Changes in Physics: Photonics courses
Hi Martin,

Thank you for the opportunity to review and comment on the proposed Calendar changes to the physics courses, PHYS 3600 and 4600.

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

Derek

Derek Howse
Chair, Undergraduate Studies Committee
Marine Institute, Memorial University
TEL: 709-778-0586
FAX: 709-778-0394
Derek.Howse@mi.mun.ca

TO: Martin Plumer, Chair, Undergraduate Studies Committee
    Jolanta Lagowski, Head, Physics & Physical Oceanography
FROM: Alison Ambi, Science Research Liaison Librarian

RE: Proposed calendar changes to photonics courses

DATE: August 4, 2016

I have reviewed the proposed edits to the calendar entries for PHYS 3600 and 4600 and have determined that the changes will have no impact on library resources.
Proposal from the Department of Physics and Physical Oceanography to Amend Several Course Calendar Entries

The Department of Physics and Physical Oceanography has initiated a review of all of its undergraduate course calendar entries.

These will be submitted for consultation and approval in blocks of 2-5 courses, by subject area, over the coming months.

Attached are amendment proposals for our three mechanics courses: PHYS 2820, 3220, and 3230.

Feedback is requested by August 31, 2016.

Thank you.

Martin Plumer, Chair, Undergraduate Studies Committee (plumer@mun.ca)

Jolanta Lagowski, Head (physicshead@mun.ca).

July 13, 2016.
Proposal
Amend Calendar Entry PHYS 2820

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs

- None.

Consultations

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required

- No new Library resources required.

Signature of Unit Head (if appropriate):

Date:

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

Date:
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title

Physics 2820 Computational Mechanics

Abbreviated Course Title

Computational Mechanics

Calendar Change(s)

2820 Computational Mechanics covers Newtonian dynamics and celestial mechanics, numerical differentiation and integration, numerical solutions to mechanics problems, data and spectral analysis, Fourier series and normal modes, oscillations and vibrations, linear and non-linear oscillators, nonlinear dynamics and chaos, introduces computational methods in the context of Newtonian mechanics. Numerical differentiation and integration, numerical solutions to differential equations and data analysis are applied to projectile motion, N-body systems, oscillations and problems from geophysics. Implementation of numerical methods using computer programming is emphasized.

CO: Mathematics 2000
LG: 5
LH: 5-1.5
PR: Mathematics 2000 and PHYS 1051

Rationale

Course description is out of date. The proposed wording better reflects what is currently being taught in the course. Previous accounting of laboratory hours was based on a now outdated algorithm. The course has three lecture hours, as per default.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus  Yes/No  
2. Marine Institute  Yes  
3. Department of Biochemistry  Yes  
4. Department of Biology  Yes/No  
5. Department of Chemistry  Yes/No  
6. Department of Computer Science  Yes/No  
7. Department of Earth Sciences  Yes/No  
8. Department of Ocean Sciences  Yes  
9. Department of Psychology  Yes/No  
10. Department of Mathematics and Statistics  Yes  
11. Engineering  Yes  

Library Report Received

- Yes

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

Name

==================================================================================================

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:

Secretary:

Date:
Proposal
Amend Calendar Entry PHYS 3220

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate): ________________________________

Date: ________________________________

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

Date: ________________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title

Physics 3220: Classical Mechanics I

Abbreviated Course Title

Classical Mechanics I

Calendar Change(s)

3220 Classical Mechanics I covers kinematics and dynamics of a particle. Moving reference systems, Celestial mechanics, Systems of particles, vector operations, coordinate transformations, derivative of vectors, Newton's laws, differential equations, kinematics and dynamics of a particle, linear and quadratic air resistance, terminal velocity, momentum of a time varying mass, center of mass systems, angular momentum, moment of inertia, energy, work-energy theorem, forces as the gradient of potential energy, time dependent potential energy, curvilinear one-dimensional systems, energy of a multiparticle system, calculus of variations, and Lagrangian Dynamics.

CO: PHYS 2820, and Mathematics 2260 (or 3260) and 3202
PR: PHYS 2820, and Mathematics 2260 (or 3260) and 3202

Rationale

Course description is out of date. The proposed wording better reflects what is currently being taught in the course. Mathematics 3260 was replaced by 2260 some time ago. The new CO/PR of Mathematics 3202 will help prepare students for the material covered in the course.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus  Yes/No
2. Marine Institute Yes
3. Department of Biochemistry Yes
4. Department of Biology Yes/No
5. Department of Chemistry Yes/No
6. Department of Computer Science Yes/No
7. Department of Earth Sciences Yes/No
8. Department of Ocean Sciences Yes
9. Department of Psychology Yes/No
10. Department of Mathematics and Statistics Yes
11. Engineering Yes

Library Report Received

- Yes

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

Name

-------------------------------------------------------------------------------

Chair:

Secretary:

Date:

FOR OFFICE USE ONLY

APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES
Proposal
Amend Calendar Entry PHYS 3230

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate):

Date:

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

Date:
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title

Physics 3230 Classical Mechanics II

Abbreviated Course Title

Classical Mechanics II

Calendar Change(s)


PR: PHYS 3220 and 3810 (or Mathematics 3202) and Mathematics 2260 and 3202 or (3260)

CO: Mathematics 3202

Rationale

Course description is out of date. The proposed wording better reflects what is currently being taught in the course. Physics 3810 and Mathematics 3260 are no longer offered. Mathematics 3202 indicated as a CO should be adequate for the material covered in the course.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus
2. Marine Institute
3. Department of Biochemistry
4. Department of Biology
5. Department of Chemistry
6. Department of Computer Science
7. Department of Earth Sciences
8. Department of Ocean Sciences
9. Department of Psychology
10. Department of Mathematics and Statistics
11. Engineering

Yes/No
Yes
Yes
Yes/No
Yes/No
Yes/No
Yes/No
Yes
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:
From: Math Consult [mathconsult@mun.ca]
Sent: July-13-16 2:50 PM
To: Martin Plumer
Subject: Re: Proposed Calendar Changes: Physics Mechanics courses

Hi Martin,

The Department of Physics and Physical Oceanography has initiated a review of all of its undergraduate course calendar entries.

These will be submitted for consultation and approval in blocks of 2-5 courses, by subject area, over the coming months.

Attached are amendment proposals for our three mechanics courses: PHYS 2820, 3220, and 3230. Feedback is requested by August 31, 2016.

The Department of Mathematics and Statistics has no objection to the proposed Calendar changes.

 Regards,
 Shannon
From: Martin Plumer [plumer@mun.ca]
Sent: July-13-16 3:00 PM
To: 'Engineering Consultations'
Subject: RE: Proposed Calendar Changes: Physics Mechanics courses

Glyn,

Thanks for spotting that.

Yes, we will add Math 3202 as a PR for Phys 3220.

Martin

-----Original Message-----
From: Engineering Consultations [mailto:engrconsult@mun.ca]
Sent: July-13-16 10:00 AM
To: Martin Plumer
Cc: physicshead@mun.ca
Subject: Re: Proposed Calendar Changes: Physics Mechanics courses

Martin,

The changes proposed for first year courses and for the courses listed below will be considered at next week's meeting of the Engineering CUGS.

I have one immediate comment:
For PHYS 3220 do you intend to add Mathematics 3202 to the prerequisite list in addition to the corequisite list (similar to the other two CO/PR courses)?

Glyn.

--
Dr. Glyn George, Chair
Committee on Undergraduate Studies
Faculty of Engineering and Applied Science Memorial University of Newfoundland
St. John's  NL  A1B 3X5
From: Fletcher, Garth [fletcher@mun.ca]
Sent: July-19-16 11:11 AM
To: plumer@mun.ca
Cc: amervier@mun.ca
Subject: FW: Proposed Calendar Changes: Physics Mechanics courses

Hi Martin: Our Undergraduate Studies Committee reviewed the proposed changes and agreed that
our department had no concerns with them.

Best regards

Garth

Garth L. Fletcher
Head and Professor Emeritus
Department of Ocean Sciences
Ocean Sciences Centre
0 Marine Lab Road
St John’s NL
Canada
AiC 5S7

Tel: 709-864-3276
Fax: 709-864-3220
From: Biochemistry Head [biochead@mun.ca]
Sent: July-19-16 2:15 PM
To: Martin Plumer
Subject: RE: Proposed Calendar Changes: Physics Mechanics courses

Hi Martin

No concerns from Biochemistry. Good luck with the changes.

Mark

Mark D. Berry Ph.D.
Professor and Head
Dept. Biochemistry
Memorial University of Newfoundland
St. John's, NL, Canada
A1B 3X9
Martin,

Thank you for the opportunity to review and comment on the proposed Calendar changes to the physics courses PHYS 2820, 3220, and 3230.

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

One extremely small point, in the revised version of PHYS 3230, perhaps the use of lowercase for “… scattering angle, impact parameter, differential scattering cross section, and Rutherford scattering.”

All the best,
Derek

Derek Howse
Chair, Undergraduate Studies Committee
Marine Institute, Memorial University
TEL: 709-778-0586
FAX: 709-778-0394
Derek.Howse@mi.mun.ca
DATE: July 14, 2016

TO: Martin Plumer, Chair, Undergraduate Studies Committee
Jolanta Lagowski, Head, Physics

FROM: Alison Ambi, Science Research Liaison Librarian

RE: Proposed calendar changes to PHYS 2820, 3220, and 3230.

I have reviewed the proposed calendar changes to the Mechanics courses, PHYS 2820, 3220, and 3230, and determined that they would have no impact on library resources.
Proposal from the Department of Physics and Physical Oceanography to Amend Several Course Calendar Entries

The Department of Physics and Physical Oceanography has initiated a review of all of its undergraduate course calendar entries.

These will be submitted for consultation and approval in blocks of 2-5 courses, by subject area, over the coming months.

Attached are amendment proposals for our four first-year courses: PHYS 1020, 1021, 1050, and 1051.

Feedback is requested by August 31, 2016.

Thank you.

Martin Plumer, Chair, Undergraduate Studies Committee (plumer@mun.ca)
Jolanta Lagowski, Head (jolantal@mun.ca).

July 6, 2016.
Proposal
Amend Calendar Entry PHYS 1020

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate): __________________________

Date:

____________________________________

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

Date:

____________________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title

Physics 1020 Introductory Physics I

Abbreviated Course Title

Introductory Physics I

Calendar Change(s)

1020 Introductory Physics I is an algebra based introduction to Newtonian mechanics. Topics covered include motion in one and two dimensions, Newton’s laws, momentum, energy and work, and rotational motion. Previous exposure to physics would be an asset but is not essential. This course may be completed by someone who has no physics background provided some extra effort is made.

CO: Mathematics 1090
CR: PHYS 1050
LH: 3; six laboratory sessions per semester
OR: tutorial or problem sessions may be held on weeks when no laboratory is scheduled
PR: Level III Advanced Mathematics or Mathematics 1090. It is recommended that students have completed at least one high school physics course.

Rationale

Previous course description lacked detail. The proposed wording better reflects what is currently being taught in the course.
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<thead>
<tr>
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<th>Comments Received</th>
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</thead>
<tbody>
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<tr>
<td>• Grenfell Campus</td>
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<td>• Department of Ocean Sciences</td>
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<td>• Department of Mathematics and Statistics</td>
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<td>• Engineering</td>
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</table>

**Library Report Received**

- Yes/

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

**Name**

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**FOR OFFICE USE ONLY**

APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:

Secretary:

Date:
Proposal
Amend Calendar Entry PHYS 1021

Executive Summary
Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs
- None.

Consultations
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required
- No new Library resources required.

Signature of Unit Head (if appropriate): ________________________________

Date: ________________________________

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

Date: ________________________________
Course Number and Title

Physics 1021 Introductory Physics II

Abbreviated Course Title

Introductory Physics II

Calendar Change(s)

1021 Introductory Physics II is a non-calculus algebra based introduction to oscillations, fluids, wave motion, light, optics, electricity and magnetism, and circuits.

CO: Mathematics 1000

LH: 3; normally there will be six laboratory sessions per semester

OR: tutorial sessions may be held on weeks when no laboratory is scheduled

PR: PHYS 1020 or 1050 and Mathematics 1090 or 1000

Rationale

Course description is out of date. The proposed wording better reflects what is currently being taught in the course. The CO of Mathematics 1000 (Calculus I) is no longer considered necessary.
Consultations Sought From

- Faculty of Science
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

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<td>8. Department of Ocean Sciences</td>
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<td>9. Department of Psychology</td>
<td>Yes/No</td>
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<td>10. Department of Mathematics and Statistics</td>
<td>Yes</td>
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<td>11. Engineering</td>
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</table>

Library Report Received

- Yes

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

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:

Secretary:

Date:

Proposal
Amend Calendar Entry PHYS 1050

Executive Summary

Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs

- None.

Consultations

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required

- No new Library resources required.

Signature of Unit Head (if appropriate):

______________________________

Date:

______________________________

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

______________________________

Date:

______________________________
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title
Physics 1050 General Physics I: Mechanics

Abbreviated Course Title
General Physics I

Calendar Change(s)

1050 General Physics I: Mechanics is a calculus based introduction to mechanics. The course will emphasize problem solving, beginning with a review of vectors and one-dimensional kinematics. The main part of the course covers motion in two dimensions, forces and Newton's Laws, energy, momentum, rotational motion and torque, and finally oscillations. For more details regarding recommendations for students taking PHYS 1050, see Note 4 under Physics and Physical Oceanography.
CO: Mathematics 1000
CR. PHYS 1020
LH: 3; normally there will be six laboratory sessions per semester
OR: tutorial sessions may be held on weeks when no laboratory is scheduled
PR: Mathematics 1000

Rationale
Course description is out of date. The proposed wording better reflects what is currently being taught in the course.
Consultations Sought From

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Comments Received

1. Grenfell Campus  Yes/No
2. Marine Institute  Yes
3. Department of Biochemistry  Yes/No
4. Department of Biology  Yes/No
5. Department of Chemistry  Yes/No
6. Department of Computer Science  Yes/No
7. Department of Earth Sciences  Yes/No
8. Department of Ocean Sciences  Yes/No
9. Department of Psychology  Yes/No
10. Department of Mathematics and Statistics  Yes
11. Engineering  Yes

Library Report Received

- Yes

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

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair:

Secretary:

Date:
Amend Calendar Entry PHYS 1051

Executive Summary

Proposal contains minor revisions to course description.

Resource Implications: Instructional Costs

- None.

Consultations

- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

Library Holdings and/or Other Resources Required

- No new Library resources required.

Signature of Unit Head (if appropriate):

Date:

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

Date:
SUMMARY PAGE FOR SENATE

Approval Form

Course Number and Title

Physics 1051 General Physics II: Oscillations, Waves, Electromagnetism

Abbreviated Course Title

General Physics II

Calendar Change(s)

1051 General Physics II: Oscillations, Waves, Electromagnetism is a calculus based introduction to oscillations, wave motion, physical-optics and electromagnetism. Topics include: simple harmonic motion; travelling waves, sound waves, and standing waves; electric fields and potentials; magnetic forces and fields; electric current and resistance; and electromagnetic waves.

CO: Mathematics 1001

LH: 3; normally there will be six laboratory sessions per semester.

OR: tutorial sessions may be held on weeks when no laboratory is scheduled

PR: PHYS 1050, or 1021, or 1020 (with a minimum grade of 6570%) and Mathematics 1004

Rationale

Course description is out of date. The proposed wording better reflects what is currently being taught in the course. Data from previous years indicates that students transferring from PHYS 1020 into PHYS 1051 have difficulty. It is hoped that increasing the minimum grade to 70% will help to alleviate this problem. Most students will not have taken Mathematics 1001 before PHYS 1051 so this PR has been removed.

Secondary Calendar Changes

9.10 Physics and Physical Oceanography

Notes:

3. The six course stream consisting of Physics 4020, 1021, 1050, 1051, 2053, 2055, 2750, and 2820 or alternatively the seven course stream of Physics 1020, 1021, 4069, 1051, 2053, 2055, 2750, and 2820 is intended to provide a cohesive overview of Physics for potential Physics majors. Students who receive a grade of greater than 70% in Physics 1020 may proceed directly into Physics 1051 without taking Physics 1021.

4. Physics 1050 is open to and recommended for students who have completed Level II Physics, Level III Physics and Level III Advanced Mathematics. Mathematics 1000 must be taken at the same time as, or be completed prior to, taking Physics 1050. Students who have completed Mathematics 4099 1000 and Physics 1050 are required to register for or complete Mathematics 4000 1001 before registering for Physics 1051.
5. Physics 1020 is intended for students who do not qualify for Physics 1050, and while it may be taken by students who have no background in Physics or who are pursuing degree programs which do not require Physics 1050, it is recommended that students wishing to take Physics 1020 should have completed at least one of Level II and Level III Physics. Students who complete Physics 1020 (with a grade of at least 70%) and Mathematics 1000 are eligible for admission to Physics 1051. Students may receive credit for only one of Physics 1050 and 1020.

6. Students who have successfully completed Advanced Placement courses in both Physics and Mathematics will normally be eligible for direct entry into Physics 1051, which can be taken concurrently with Physics 2053 and 2750 all of which are offered in the Fall semester. Eligible students are advised to consult the Department.

8. Supplementary examinations will be allowed in certain Physics courses which have written final examinations. Students should refer to the Faculty of Science Degree Regulations for details.

**Rationale**

Notes section contained some errors and now includes the new Physics 1020 grade of 70% for entry into Physics 1051. Part 8 is now considered unnecessary.

**Consultations Sought From**
- Faculty of Science.
- Grenfell Campus
- Marine Institute
- Faculty of Engineering

**Comments Received**

1. Grenfell Campus  Yes/No
2. Marine Institute  Yes
3. Department of Biochemistry  Yes/No
4. Department of Biology  Yes/No
5. Department of Chemistry  Yes/No
6. Department of Computer Science  Yes/No
7. Department of Earth Sciences  Yes/No
8. Department of Ocean Sciences  Yes/No
9. Department of Psychology  Yes/No
10. Department of Mathematics and Statistics  Yes
11. Engineering  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:
Hi Martin,

In that case, I would suggest amending the sentence in the rationale which reads, "Students should have taken Mathematics 1000 before Physics 1021." This makes it sound as if knowledge obtained in Math 1000 is compulsory for Physics 1021, whereas Rick's response indicates that this is not the case.

Cheers,
Shannon

On 12/07/16 09:17 AM, Martin Plumer wrote:
> Hi Shannon,
>
> Thanks for the feedback.
>
> Here is a response from Rick Goulding.
>
> Best,
> Martin
>
> -----Original Message-----
> From: rgoulding [mailto:rgoulding@mun.ca]
> Sent: July-12-16 9:14 AM
> To: plumer@mun.ca
> Subject: Re: Proposed Calendar Changes Physics first-year courses
>
> Hi Martin
> The intention is that a student who has done M1090 can take both 1020 and 1021 (without M1000) as the math requirements, in terms of knowledge, for both courses are the same. You do not need M1000 for P1021 but some students who do 1021 will have done M1000 so making it as one of the prereqs makes things easier.
>
> Rick

> On 2016-07-09, 6:53 PM, "plumer@mun.ca" <plumer@mun.ca> wrote:
------ Forwarded message from Math Consult <mathconsult@mun.ca> ------

Date: Fri, 08 Jul 2016 15:50:50 -0230

From: Math Consult <mathconsult@mun.ca>

Reply-To: Math Consult <mathconsult@mun.ca>

Subject: Re: Proposed Calendar Changes Physics first-year courses

To: Martin Plumer <plumer@mun.ca>


Hi Martin,

The Department of Physics and Physical Oceanography has initiated a review of all of its undergraduate course calendar entries.

These will be submitted for consultation and approval in blocks of 2-5 courses, by subject area, over the coming months.

Attached are amendment proposals for our four first-year courses:

PHYS 1020, 1021, 1050, and 1051.

Feedback is requested by Aug. 31.

The proposal indicates that Mathematics 1000 will be deleted as a co-requisite for Physics 1021. However, this leaves the Math prerequisite as "Mathematics 1090 or 1000". As such, a student will be eligible to take Physics 1021 having completed only Mathematics 1090 (along with Physics 1020 or 1050). Is this the intention? Should the prerequisite instead simply be revised to read "PHYS 1020 or 1050, and Mathematics 1000"?

Otherwise, the Department of Mathematics and Statistics has no objections to the proposal.

Regards,
Shannon

--

Dr. Shannon Patrick Sullivan
Dept. of Mathematics & Statistics
Senior Faculty Advisor, Faculty of Science Memorial University of Newfoundland St. John's • NL • Canada shannon@mun.ca •
www.ucs.mun.ca/~shannon
From: Engineering Consultations [engrconsult@mun.ca]
Sent: July-20-16 3:34 PM
To: Martin Plumer
Cc: 'Physics Head'; Andrew Fisher; Barrington, Kaela
Subject: Re: Proposed Calendar Changes Physics first-year courses + Mechanics

Dear Dr. Plumer,

Thank you for the opportunity to comment on the proposed Calendar changes to the first year Physics courses and to the Mechanics courses PHYS 2820, 3220, and 3230.

Most Engineering students take PHYS 1050 and PHYS 1051 prior to Term 3, although some take PHYS 1020 and very few take PHYS 1021.

At its meeting today, the Committee on Undergraduate Studies of the Faculty of Engineering and Applied Science noted that the topic of circuits is being added to PHYS 1021 but not to PHYS 1051.

The Committee supports these changes that better describe the course content.

The Committee supports the higher threshold in PHYS 1020 for direct entry to PHYS 1051.

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

Thank you for the opportunity to review and comment on the proposed Calendar changes to the first year physics courses PHYS 1020, 1021, 1050, and 1051.

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

One small point, in the revised version of PHYS 1021 the CO: Mathematics 1000 has been removed but the PR: PHYS 1020 or 1050 and Mathematics 1090 or 1000 remains. The rationale states that “Students should have taken Mathematics 1000 before Physics 1021.” However by leaving the Mathematics 1090 option in the PR allows the student to register for PHYS 1021 without having completed Mathematics 1000. Is this by design and speaks to the use of the word “should” in the rationale?

All the best,
Derek

Derek Howse
Chair, Undergraduate Studies Committee
Marine Institute, Memorial University
TEL: 709-778-0586
FAX: 709-778-0394
Derek.Howse@mi.mun.ca

DATE: July 11, 2016

TO: Martin Plumer, Chair, Undergraduate Studies Committee
Jolanta Lagowski, Head, Physics

FROM: Alison Ambi, Science Research Liaison Librarian

RE: Proposed calendar changes to PHYS 1020, 1021, 1050, and 1051.

I have reviewed the proposed calendar changes to PHYS 1020, 1021, 1050, and 1051 and determined that they would have no impact on library resources.
October 4, 2016

TO: All Members, Faculty Council of Science

FROM: Joan Burry, Secretary
       Committee on Undergraduate Studies, Faculty of Science

SUBJECT: Calendar Changes and New Course Proposals

At a meeting held on September 29, 2016, the Undergraduate Studies Committee of the Faculty of Science agreed that the following items be forwarded to Faculty Council for approval:

1. Department of Physics and Physical Oceanography
   - Changes to course descriptions, including some prerequisite changes, for 17 Physics courses

2. Department of Computer Science
   (i) Calendar change to amend the prerequisite for Computer Science 2716
   (ii) Proposal for new course Computer Science 1401: Computing at the Movies

3. Department of Mathematics and Statistics
   - Calendar change to the program regulations pertaining to the usage limitations on Mathematics 1050 and 1051

Joan Burry
Associate Registrar and
Secretary, Committee
on Undergraduate Studies,
Faculty of Science
May 5, 2016

TO: Joan Burry, Secretary
    Committee on Undergraduate Studies, Faculty of Science

FROM: Wolfgang Banzhaf, Department Head
      Department of Computer Science

SUBJECT: Calendar Change COMP-2718 and new course COMP-1401

The Department of Computer Science is proposing a revision to Computer Science 2718, and proposing a new course COMP-1401 Computing at the Movies. A copy of the proposals are enclosed for your review.

Collegial consultation for the proposals took place at the departmental meeting held January 28, 2016. As part of the consultation process, the proposal was circulated to other academic units with a request for comments by March 25, 2016. There were 15 responses received and copies of those comments are enclosed.

W. Banzhaf

/re
Enclosures
Proposal
Calendar Change to Existing Course - COMP 2718

Course Number and Title

2718 Development Tools, Work Flows and Concepts

Proposed Change(s) to Calendar Description

Current Calendar Description

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 1510 or COMP 1550 or COMP 1700 or COMP 1710 or COMP 2650-

Proposed Calendar Description 2017-2018

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

Rationale for Change

This is an updated calendar description reflecting how the course has evolved since its first offering in 2013 and determining that second-year skills, versus first-year, are required.

Consultations Sought From

Department of Biochemistry
Department of Biology
Department of Chemistry
Department of Earth Sciences

Comments Received
No
Yes
No
No
Consultations Sought From

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<td>Faculty of Engineering and Applied Science</td>
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<td>Department of Electrical and Computer Engineering</td>
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Library Report Received

- Not applicable

Library Holdings and/or Other Resources Required

Prerequisite change does not affect library holdings and/or other resources.

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

Signature of Unit Head (if appropriate):


Date:

May 5, 2016

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


Date:
SUMMARY PAGE FOR SENATE

Approval Form

Course Title and Number 2718 Development Tools, Work Flows and Concepts

Abbreviated Course Title 2718 Dev Tools, Work Flows and Cncpts

Calendar Description Change(s)

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-1510 or COMP-1550 or COMP-1700 or COMP-1710 or COMP-2650-

Proposed Calendar Description 2017-2018

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

Rationale

This is an updated calendar description reflecting how the course has evolved since its first offering in 2013 and determining that second-year skills, versus first-year, are required.

Consultations Sought From

Department of Biochemistry
Department of Biology
Department of Chemistry
Department of Earth Sciences

Comments Received

No
Yes
No
No
SUMMARY PAGE FOR SENATE
Approval Form
Page 2

Consultations Sought From

<table>
<thead>
<tr>
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<td>Marine Institute</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Library Report Received: Not applicable

Approved by Dean, Associate Vice-President (Academic) or Vice-President: Yes/No

Name: ____________________________

FOR OFFICE USE ONLY

APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair: ____________________________

Secretary: _________________________

Date: ____________________________
October 4, 2016

TO: All Members, Faculty Council of Science
FROM: Joan Burry, Secretary
Committee on Undergraduate Studies, Faculty of Science
SUBJECT: Calendar Changes and New Course Proposals

At a meeting held on September 29, 2016, the Undergraduate Studies Committee of the Faculty of Science agreed that the following items be forwarded to Faculty Council for approval:

1. Department of Physics and Physical Oceanography
   - Changes to course descriptions, including some prerequisite changes, for 17 Physics courses

2. Department of Computer Science
   (i) Calendar change to amend the prerequisite for Computer Science 2718
   (ii) Proposal for new course Computer Science 1401: Computing at the Movies

3. Department of Mathematics and Statistics
   - Calendar change to the program regulations pertaining to the usage limitations on Mathematics 1050 and 1051

Joan Burry
Associate Registrar and
Secretary, Committee
on Undergraduate Studies,
Faculty of Science
May 5, 2016

TO: Joan Burry, Secretary  
    Committee on Undergraduate Studies, Faculty of Science

FROM: Wolfgang Banzhaf, Department Head  
      Department of Computer Science

SUBJECT: Calendar Change COMP-2718 and new course COMP-1401

The Department of Computer Science is proposing a revision to Computer Science 2718, and proposing a new course COMP-1401 Computing at the Movies. A copy of the proposals are enclosed for your review.

Collegial consultation for the proposals took place at the departmental meeting held January 28, 2016. As part of the consultation process, the proposal was circulated to other academic units with a request for comments by March 25, 2016. There were 15 responses received and copies of those comments are enclosed.

Wolfgang Banzhaf

/re
Enclosures
Proposal - New Course
COMP 1401 Computing at the Movies

RESOURCE IMPLICATIONS: Instructional Costs

The current departmental computing facilities, software, faculty, instructional staff, and technical support staff will be utilized within the current resource framework of the Department of Computer Science.

RESOURCE IMPLICATIONS: Library Holdings and/or Other Resources Required

Covered in the departmental budget. Teaching commitment is one regular (three credit hours) lecture offering.

The costs associated with this new course can be met from within the existing budget allocation or authorized new funding for the Department of Computer Science.

Library Report attached. New library holdings may eventually be required for films and documentaries shown as part of the course as movies with be streamed. For now (following practice in ARCH-2493), the course instructor's personal DVD copies will be used.

Signature of Unit Head (if appropriate):

Date:

May 5, 2014

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

Date:
Proposal - New Course
COMP 1401 Computing at the Movies
Page 2

Course Number and Title
1401 Computing at the Movies

Abbreviated Course Title
Computing at the Movies

Calendar Description
1401 Computing at the Movies will both examine and counter common misconceptions about computing and the computing profession. This will be done by contrasting depictions of various aspects of computing in various movies and documentaries produced over the last 60 years with the reality of these aspects as given in selected readings and course lecture notes.

Secondary Calendar Changes
None.

Rationale
Misconceptions about the nature, abilities, and limitations of computing devices, as well as the computing profession and those within it, are widespread—fostered in large part by (mis)representations of computing in print and audiovisual media. Such misconceptions can have far-reaching consequences given the increasing prominence of computing in personal, commercial, and political life. The main objective of this course is to critically examine these misconceptions through viewing, discussing, and writing about representations of computing in various movies and documentaries produced over the last 60 years. A secondary, but nonetheless still important objective, will be to stimulate interest in computing in the context of a non-technical and easily accessible introduction to computing and the computing profession.

Consultations
To be distributed to the Faculties of Science, Arts, Business Administration, Education, Engineering and Applied Science, Medicine, Schools of Human Kinetics and Recreation, Music, Nursing, Pharmacy, Social Work, Grenfell Campus and Marine Institute.

Sample Course Outline and Method of Evaluation
This course will be taught once a week in a three-hour evening lecture slot in an AV-friendly classroom where DVDs can be played, e.g., A-1045. Several days before each lecture, introductory notes on the area of computer science treated in the film, a brief fact
Proposal - New Course
COMP 1401 Computing at the Movies
Page 3

sheet on the film, and one or more readings will be provided on the course website; the
expectation is that this content will be read before the lecture. In each lecture, there will be
a brief (15-25 minute) introduction by the instructor before the screening of that week's film.
The screening will be followed by further lecturing by the instructor, and class discussion.
Over the course of the term, the students will submit 3 three-page (double-spaced) papers
on three different films (one fixed by the instructor for all students, two others chosen
individually by the student) in which the student gives a critical assessment of both the
(in)accuracy of the portrayal of computing in that film as well as how this film affects
the public's perception of computing. A 7-10 page (double-spaced) term paper assessing,
comparing, and contrasting all films shown in one of the three course themes (see below),
plus one other film on that theme (selected in consultation with the course instructor) will
be due a week after the end of classes.

The films will follow a roughly chronological course from 1955 to the present, with each film
touching on one or more of the following three broad themes: Computing in the Popular
Imagination (CI), Computing and Society (CS), and the Computing Profession (CP).

A sample set of films and associated readings is as follows:

**Week 1: Introduction: Computing and Hollywood v1.0**
- Presented Viewing: *Westworld* (1973) (CI1)
- Assigned Reading: None

**Week 2: Inside the Dream Machine**
- Assigned Reading: TBA

**Week 3: Computing and the Workplace**
- Presented Viewing: *Desk Set* (1957) (CS1)
- Assigned Reading: Powell and Snellman (2004)

**Week 4: Computing and the Military**
- Assigned Reading: Lucas Jr. (2011)

**Week 5: Computing and Medicine**
- Assigned Reading: Marks, Shaw, and Parkin (1998)

**Week 6: The Personal Computer Revolution**
- Presented Viewing: *Pirates of Silicon Valley* (TV) (1999) (CP1)
- Assigned Reading: Cringeley (1996), Chapter 10
Proposal - New Course
COMP 1401 Computing at the Movies
Page 4

Week 7: The Hacker Mystique
  Presented Viewing: War Games (1983) (CP2)
  Assigned Reading: Jordan and Taylor (1988)

Week 8: Computing and Privacy
  Assigned Reading: Wash (2010)

Week 9: The Business of Computing I
  Assigned Reading: Vargas (2012)

Week 10: The Business of Computing II
  Presented Viewing: Revolution OS (2001) (CP4)
  Assigned Reading: Raymond (1999)

Week 11: The Wired World
  Assigned Reading: Baym and Boyd (2012)

Week 12: AI and Robotics
  Presented Viewing: A..I. (2001 (CI4)
  Assigned Reading: TBA

Method of Evaluation:

Course Participation 5%
Critical Film Commentaries (3) 30%
Term Paper 35%
Final Exam 30%

Texts and References

Sample readings (subject to change, dependent on the film shown):


  [Chapter 10: “The Prophet”]

Proposal - New Course
COMP 1401 Computing at the Movies
Page 5


Instructor(s)

Dr. Todd Wareham, Dr. Manrique Mata-Montero.
SUMMARY PAGE FOR SENATE

Approval Form

Course Title and Number 1401 Computing at the Movies

Abbreviated Course Title Computing at the Movies

Calendar Description

1401 Computing at the Movies will both examine and counter common misconceptions about computing and the computing profession. This will be done by contrasting depictions of various aspects of computing in various movies and documentaries produced over the last 60 years with the reality of these aspects as given in selected readings and course lecture notes.

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None.

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Misconceptions about the nature, abilities, and limitations of computing as well as the computing profession and those within it, are widespread—fostered in large part by (mis)representations of computing in print and audiovisual media. Such misconceptions can have far-reaching consequences given the increasing prominence of computing in personal, commercial, and political life. The main objective of this course is to critically examine these misconceptions through viewing, discussing, and writing about representations of computing in various movies and documentaries produced over the last 60 years. A secondary, but nonetheless still important objective, will be to stimulate interest in computing in the context of a non-technical and easily accessible introduction to computing and the computing profession.

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</table>

Library Report Received: Yes

Approved by Dean, Associate Vice-President (Academic) or Vice-President

Name ________________________________

FOR OFFICE USE ONLY

APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair: ________________________________

Secretary: ________________________________

Date: ________________________________
Mail :: sent-mail: New Course in Computer Science and Calendar Change for COMP 2718

sent-mail: New Course in Computer Science and Calendar Change... (1 of 407)

Date: Fri, 26 Feb 2016 16:31:51 -0330
From: cs-chair <cs-chair@mun.ca>
To: stacey@mun.ca, fba.ad.undergrad@mun.ca, shicks@mun.ca, bbraize@mun.ca, dpeters@mun.ca, engrconsult@mun.ca, associatedeptoffice@grenfell.mun.ca, mehickey@mun.ca, miguconsultations@mi.mun.ca, cvardy@mun.ca, sherry.caines@med.mun.ca, mvolk@mun.ca, dean nurse@mun.ca, phraminfo@mun.ca, deansci@mun.ca, a deanogradswk@mun.ca, univlib@mun.ca, biohead@mun.ca, pmarino@mun.ca, chemhead@mun.ca, jhanchar@mun.ca, math-head@mun.ca, fletcher@mun.ca, jolanta@mun.ca, psychology.head@mun.ca, wlocke@mun.ca, ncallio@mun.ca
Cc: nsmmons@mun.ca
Subject: New Course in Computer Science and Calendar Change for COMP 2718
Part(s): 2 COMP-1401-Proposal, pdf application/pdf 25.24 KB 3 COMP-2718-Calendar-Change pdf application/pdf 16.15 KB

Hello,

The Department of Computer Science is proposing the introduction of a new course, Computer Science 1401 Computing at the Movies. A copy of the course proposal is attached for your review.

Also attached is a proposal to change to the prerequisite for COMP-2718.

We would appreciate receiving any comments by Friday, March 25, 2016.

Regards,
Wolfgang Banzhaf
Department Head

Department of Computer Science
Memorial University
St. John's, NL A1B 3X5
Phone: (709) 864-8652
Fax: (709) 861-2009
cs-chair@mun.ca

https://webmail.mun.ca/imn/messages.nhn?index=625

2/26/2016
INBOX: Re: FW: New Course in Computer Science COMP 1401 and Calendar Change for COMP 2718

Date: Thu, 28 Apr 2016 09:51:23 -0230
From: CS-Chair <cs-chair@mun.ca>
To: Karen Morris <morrisk@mun.ca>
Cc: "Marino, Paul" <pmarino@mun.ca>, Computer Science Chair <cs-chair@mun.ca>
Subject: Re: FW: New Course in Computer Science COMP 1401 and Calendar Change for COMP 2718

This message was written in a character set other than your own. If it is not displayed correctly, click here to open it in a new window.

Dear Dr. Morris,

thank you very much for your feedback on the proposed course.

Your concerns raised some important points that needed to be discussed with the course instructor.

I can provide the following clarifications and modifications to the course outline.

Clarifications:
The assignments (whether they be 10 or fewer in number) will not be summaries of
in-class discussions and the student's opinion on a film. Rather, in
each assignment,
the student must give a reasoned and critical evaluation of the
depiction of a highlighted
aspect of computing in the film in light of the reality of that aspect
as derived from that
week's reading(s), lecture notes, and in-class discussion.

This way, the scientific content of the course can be seen clearer as
(1) giving basic knowledge about certain aspects of computing; and
(2) bringing this knowledge home by contrasting the realities of computing
with misconceptions about computing in the media.

There exists a similar course in Archaeology - ARCH 2493 - which has been used
as an example when designing our course.

Modifications:
We agree that there should be fewer, longer assignments to allow more space for students to do good critical evaluations. Analogous shifts in focus and length will also be made wrt the term paper.

Regarding the evaluation scheme, we agree that the assignments had too much weight.
In following Winter 2016 syllabus for ARCH 2493, the following evaluation scheme will be implemented:

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<td>Critical Film Commentaries (3-5)</td>
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<td>Term Paper</td>
<td>35%</td>
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<td>Final Exam</td>
<td>30%</td>
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</table>

The revised course description will reflect these changes.

I apologize for the long time it took to respond. We wanted to make sure to improve the course before it moves on.

Your feedback is very much appreciated,

Wolfgang Banzhaf
Department Head
--------
Department of Computer Science
Memorial University St. John's, NL A1B 3X5
Phone: (709) 864-8652
Fax: (709) 864-2009
cs-chair@mun.ca
--------

On 2016-03-10 2:56 PM, Karen Morris wrote:
> Dear Dr. Banzhaf,
> 
> The Biology Undergraduate Studies Committee reviewed the new course proposal COMP 1401 Computing at the Movies and we have a few concerns with the proposal as presented.
>
> We find it hard to be able to ascertain how the course will attain the overall objectives and purpose as outlined under the heading *Rationale* ( page 2 of the proposal).
>
> Based on the sample course outline and method of evaluation it appears that 70% of the evaluation will be based on 10 ( 1 1/2 page) reports which are a summary of each week’s in-class discussion and the individuals opinion of that week’s film. The percentage of the overall grade that is given for such work seems to be too high considering the student is only summarizing what he/she hears in the discussion after the movie and then gives their own opinion of the movie that was viewed that week.
It may be that there is insufficient detail provided in the course outline and that a more comprehensive outline including greater specifics in terms of the expectations for content of the weekly reports and scientific material covered in each session will alleviate our concerns.

We have no concerns with the proposed calendar changes to the existing COMP 2718 Development Tools. Work Flows and Concepts.

If you have any questions please let me know.

Thanks
Karen

Karen Morris
Undergraduate Officer
Department of Biology
Memorial University of Newfoundland
St. John's, NL A1B 3X9
709-864-8021

*
On 29/02/2016 11:46 AM, Kenny, Shirley wrote:
> Hi Karen:
> For you.
> Thanks
> Shirley
>
> ==============================================================
> Shirley Kenny
> Secretary to the Head
> Department of Biology
> Memorial University of Newfoundland
> St. John's NL
> Tel: 709-864-7497
> Fax: 709-864-3018
> This electronic communication is governed by the terms and conditions at http://www.mun.ca/cc/policies/electronic_communications_disclaimer_2012.php
>
> -----Original Message-----
> From: Dean of Science
> Sent: Monday, February 29, 2016 11:46 AM
> To: Chris Radford, Math & Stats; Fletcher, Garth; Ian Neath, Psychology; John Hanchar, Earth Sciences; Lagowski, Jolanta; Marino, Paul; Biochemistry Head; Travis Fridgen, Chemistry; Wolfgang Banzhaf, Computer Science
> Cc: oscar@mun.ca; Associate Dean of Science (Undergraduate); Collins, Rosalind (Chemistry); Coombs, Donna Geraldine; Edwards, Regina (Computer Science); Gaslard, Betty Ann; Guzzwell, Diane (Earth Sciences); Kenny, Shirley; Morrissey, Leonce (Math & Stats); Psychology; Sparkes, Winnie
> Subject: FW: New Course in Computer Science and Calendar Change for COMP 2718
>
> Please forward comments tocs-chair@mun.ca with a copy todeansci@mun.ca.
> Thanks,
> Mary
Hello,

The Department of Computer Science is proposing the introduction of a new course, Computer Science 1401 Computing at the Movies. A copy of the course proposal is attached for your review.

Also attached is a proposal to change to the prerequisite for COMP 2718.

We would appreciate receiving any comments by Friday, March 25, 2016.

Regards,

Wolfgang Banzhaf
Department Head

Department of Computer Science
Memorial University
St. John's, NL A1B 3X5
Phone: (709) 864-8652
Fax: (709) 864-2009
cs-chair@mun.ca
INBOX: RE: New Course in Computer Science and Calendar Ch... (1 of 559)

Date: Mon, 29 Feb 2016 07:53:02 -0330
From: wade.locke@mun.ca
To: 'cs-chair' <cs-chair@mun.ca>
Subject: RE: New Course in Computer Science and Calendar Change for COMP 2718

Economics has no objection

Wade locke

-----Original Message-----
From: cs-chair [mailto:cs-chair@mun.ca]
Sent: February-26-16 4:32 PM
To: stacey.m@mun.ca; fba.ad.undergrad@mun.ca; shicks@mun.ca; bfraize@mun.ca; dpeters@mun.ca; engrconsult@mun.ca; associatevpoffice@grenfell.mun.ca; mheickey@mun.ca; miugconsultations@mi.mun.ca; cvardy@mun.ca; sherry.caines@med.mun.ca; mvolk@mun.ca; deannurse@mun.ca; pharman@mun.ca; deansci@mun.ca; adeamugradswk@mun.ca; univlib@mun.ca; biochead@mun.ca; pmarino@mun.ca; chemhead@mun.ca; jhanchar@mun.ca; math-head@mun.ca; fletcher@mun.ca; jolant@mun.ca; psychology.head@mun.ca; wlocke@mun.ca; ncatto@mun.ca
Cc: nsimmons@mun.ca
Subject: New Course in Computer Science and Calendar Change for COMP 2718

Hello,

The Department of Computer Science is proposing the introduction of a new
course, Computer Science 1401 Computing at the Movies. A copy of the course
proposal is attached for your review.

Also attached is a proposal to change to the prerequisite for COMP-2718.

We would appreciate receiving any comments by Friday, March 25, 2016.

Regards,
Wolfgang Banzhaf
Department Head
In reply to the previous message from Norm Catto, Head of Geography at Memorial University, the Department of Computer Science is proposing the introduction of a new course, Computer Science 1401 Computing at the Movies. A copy of the course proposal is attached for your review.

Additionally, there is a proposal to change the prerequisite for COMP 2718.

We would appreciate receiving any comments by Friday, March 25, 2016.
INBOX: Re: New Course in Computer Science and Calendar Ch... (7 of 596)

Delete | Reply | Reply to All | Forward | Redirect | Blacklist | Whitelist | Message Source | Save as | Print | Back to INBOX

Date: Thu, 24 Mar 2016 15:45:14 -0230
From: CS-Chair <cs-chair@mun.ca>
To: Math Consult <mathconsult@mun.ca>
Subject: Re: New Course in Computer Science and Calendar Change for COMP 2718

This message was written in a character set other than your own. If it is not displayed correctly, click here to open it in a new window.

Hi Shannon,

thank you very much for your comment.
We'll do accordingly.

Wolfgang

On 2016-03-10 11:04 AM, Math Consult wrote:
> Hi Wolfgang,
> > The Department of Mathematics and Statistics has no objection to the
> > revised prequisites for Computer Science 2718 or the proposed new
> > course Computer Science 1401.
> > However, we would like to suggest that the Department of Computer
> > Science consider expanding the course description for Computer Science
> > 1401 to better communicate to students the specific course content.
> > The proposed course description reads more like a "mission statement"
> > and seems out of keeping with the typical Calendar style.
> > Regards,
> > Shannon
> >
Dear Wolfgang:
The proposed new course COMP 1401 and the proposed calendar change for COMP 2718 will have no effect on the Ocean Sciences' curriculum.

Best regards

Garth

-----Original Message-----
From: Dean of Science
Sent: February-29-16 11:46 AM
To: Chris Radford, Math & Stats; Fletcher, Garth; Ian Neath, Psychology; John Hanchar, Earth Sciences; Lagowski, Jolanta; Marino, Paul; Biochemistry Head; Travis Fridgen, Chemistry; Wolfgang Banzhaf, Computer Science
Cc: oscar@mun.ca; Associate Dean of Science (Undergraduate); Collins, Rosalind (Chemistry); Coombs, Donna Geraldine; Edwards, Regina (Computer Science); Gaslard, Betty Ann; Guzzwell, Diane (Earth Sciences); Kenny, Shirley; Morrissey, Leonie (Math & Stats); Psychology; Sparkes, Winnie
Subject: FW: New Course in Computer Science and Calendar Change for COMP 2718

Please forward comments to cs-chair@mun.ca with a copy to deansci@mun.ca.
Thanks,

Mary

-----Original Message-----
From: cs-chair [mailto:cs-chair@mun.ca]
Sent: February-26-16 4:35 PM
To: Mercer, Stacey; fba.ad.undergrad@mun.ca; Hicks, Sue; Fraize, Beverly; dpeters@mun.ca; engconsult@mun.ca; associatepoffice@grenfell.mun.ca; Hickey, Marie; miugconsultations@mi.mun.ca; cvardy@mun.ca; Sherry.caines@med.mun.ca;

https://webmail.mun.ca/imp/message.php?index=20338
RE: FW: New Course in Computer Science and Calendar Change... (1 of 586)

Date: Mon, 21 Mar 2016 12:31:52 -0230
From: Martin Plumer <plumer@mun.ca>
To: 'CS-Chair' <cs-chair@mun.ca>
Cc: "Lagowski, Jolanta" <jolantal@mun.ca>
Subject: RE: FW: New Course in Computer Science and Calendar Change for COMP 2718

This message was written in a character set other than your own. If it is not displayed correctly, click here to open it in a new window.

Thanks Wolfgang.

Martin

From: CS-Chair [mailto:cs-chair@mun.ca]
Sent: March-21-16 12:26 PM
To: Martin Plumer
Cc: 'Lagowski, Jolanta': Computer Science Chair
Subject: Re: FW: New Course in Computer Science and Calendar Change for COMP 2718

Hi Martin,

thanks for forwarding the comment by the head of Physics and by James Munroe, member of your undergraduate studies committee.

I would like to respond to the concerns of James:

1. COMP-1401
   Sorry about the confusion. This is not a film studies course and a decision to offer it as part of a minor in another program is not our's to take. Perhaps this should be postponed to a later time, when the course has been offered a number of times. Like ARCH-2493, is is a non-technical course offered by the department of Computer Science to students interested in re-thinking

https://webmail.mun.ca/imp/message.php?index=20455

3/22/2016
their opinion about a discipline/research area of relevance in the public's eye (and the media) today.

We do not see this as a replacement for a Science elective.

The issue of streaming licenses is currently being discussed with the QE library.

2. COMP-2718
We agree that it makes it more difficult for certain students to take this course.
This is unfortunate, but with some experience from previous offerings of this course, the department has decided that it is necessary to require second year courses as pre-requisites in order to fulfill the intended role of this course in our program.

I hope these comments help to clarify the concerns raised.

Best regards,
Wolfgang

On 2016-03-07 8:27 AM, Martin Plumer wrote:

Hi Wolfgang,

Some feedback from our Undergrad Studies Committee member.

- Martin

From: Munroe, James [mailto:jmunroe@mun.ca]
Sent: February-29-16 1:37 PM
To: Martin Plumer
Cc: Entcho Demirov; Ivan Saika-Voilov; Qiyong Chen; Rick Goulding; Stefan Wallin
Subject: FW: New Course in Computer Science and Calendar Change for COMP 2718

Hi Martin,

COMP1401

I was somewhat confused as to why CS would be offering what appears to be a film studies course. I understand that CS offers programs both as a BSc and a BA so perhaps that is the link. I suppose this course could be added to the course list for the Minor in Film Studies.

Minor concerns:

Would this course ever be used a replacement for a science elective in a program?

Regarding course implication for resources, the proposal says that no additional
costs will be incurred because the films and documentaries will be streamed. I do not know which streaming service are envisioned here, but do the licenses associated with those services support this use case?

COMP2718

For students who take only a few CS courses (such as our physics students), this change will make it more difficult to take this course. Is the material for any of those new second year courses really needed for the course?

Regards

James

Dr. James Munroe
Assistant Professor, Physics and Physical Oceanography
Memorial University of Newfoundland
St. John's, NL, A1B 3X7
Office: C-4060, Lab: C-1051
E: jmunroe@mun.ca T: 709-864-7362 C: 709-771-0450
http://www.physics.mun.ca/~jmunroe

On Mon, Feb 29, 2016 at 8:22 AM, Martin Plumer <plumer@mun.ca> wrote:

Any comments?

Martin

-----Original Message-----
From: Lagowski, Jolanta [mailto:jolantal@mun.ca]
Sent: February-26-16 4:46 PM
To: Martin Plumer
Subject: FW: New Course in Computer Science and Calendar Change for COMP 2718

Martin,
For your and USC consideration and review. I am OK with this proposal and the calendar change.
Jolanta

On 2016-02-26, 4:35 PM, "cs-chair" <cs-chair@mun.ca> wrote:

> Hello,
>
The Department of Computer Science is proposing the introduction of a new course, Computer Science 1401 Computing at the Movies. A copy of the course proposal is attached for your review.

Also attached is a proposal to change to the prerequisite for COMP-2718.

We would appreciate receiving any comments by Friday, March 25, 2016.

Regards,
Wolfgang Banzhaf
Department Head

---

Department of Computer Science
Memorial University
St. John's, NL A1B 3X5
Phone: (709) 864-8652 <tel:%28709%29%20864-8652>
Fax: (709) 864-2009 <tel:%28709%29%20864-2009>
cs-chair@mun.ca

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2016.0.7442 / Virus Database: 4537/11698 - Release Date: 02/26/16

--

Dr. James Munroe
Assistant Professor, Physics and Physical Oceanography
Memorial University of Newfoundland
St. John’s, NL, A1B 3X7

Office: C-4060, Lab: C-1051
E: jmunroe@mun.ca T: 709-864-7362 C: 709-771-0450
http://www.physics.mun.ca/~jmunroe

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2016.0.7442 / Virus Database: 4537/11719 - Release Date: 02/29/16

No virus found in this message.
Inbox: RE: New Course in Computer Science and Calendar Change... (8 of 573)

Date: Wed, 2 Mar 2016 19:15:13 +0000
From: "Mercer, Stacey" <slacey@mun.ca>
To: cs-chair <cs-chair@mun.ca>
Subject: RE: New Course in Computer Science and Calendar Change for COMP 2718

Thank you for the opportunity to provide feedback on COMP 2718. The Associate Dean of Arts (Undergraduate) wishes to indicate that in his opinion there are unlikely to be significant concerns about this proposal among members of the Faculty of Arts.

I have sent COMP 1401 onto Faculty Members who I believe may be interested in commenting.

Stacey Griffiths
Office of the Dean of Arts
Memorial University of Newfoundland
St. John's, NL A1C 5S7
709-864-8255

-----Original Message-----
From: cs-chair <cs-chair@mun.ca>
Sent: February 26, 2016 4:35 PM
To: Mercer, Stacey; fba.ad.undergrad@mun.ca; Hicks, Sue; Fraize, Beverly;
dpeters@mun.ca; engrconsult@mun.ca; associatevpo@glenfell.mun.ca; Hickey, Marie; miugconsultations@mi.mun.ca; cvardy@mun.ca; Sherry.caines@med.mun.ca;
Volk, Maureen; DeanNurse; pharinfo@mun.ca; Dean of Science; adeanugradswk;
Library Correspondence; Biochemistry Head; Marino, Paul; chemhead@mun.ca;
jhanchar@mun.ca; math-head@mun.ca; Fletcher, Garth; Lagowski, Jolanta;
psychology.head@mun.ca; wlocke@mun.ca; Catto, Norm
Cc: Simmons, Nancy
Subject: New Course in Computer Science and Calendar Change for COMP 2718

Hello,

The Department of Computer Science is proposing the introduction of a new course, Computer Science 1401 Computing at the Movies. A copy of the course proposal is attached for your review.
INBOX: New Course in Computer Science and Calendar Change... (2 of 573)

Date: Thu, 3 Mar 2016 12:59:08 +0000
From: "Mellor, Judith" <j.mellor@mun.ca>
To: "cs-chair@mun.ca" <cs-chair@mun.ca>
Subject: New Course in Computer Science and Calendar Change for COMP 2718

Part(s): 2 COMP-1401-Proposal.pdf application/pdf 18883 KB
3 COMP-2718-Calendar-Change.pdf application/pdf 12082 KB

Thank you for the opportunity to provide feedback on your calendar changes which we fully support. COMP-1401 would make a good elective for pre-education students as it will certainly enhance their potential to have some interesting discussions in their future classrooms.

Regards,
Judith

Judith Mellor
Co-ordinator, Undergraduate Programs
Faculty of Education
Memorial University of Newfoundland
T: 709.864.7554
F: 709.864.2623

From: cs-chair [mailto:cs-chair@mun.ca]
Sent: February-26-16 4:35 PM
To: Mercer, Stacey; fba.ad.undergrad@mun.ca; Hicks, Sue; Fraize, Beverly; dpeters@mun.ca; engrconsult@mun.ca; associatevpoffice@grenfell.mun.ca; Hickey, Marie; miugconsultations@mi.mun.ca; cvardy@mun.ca; Sherry.caines@med.mun.ca; Volk, Maureen; DeanNurse; pharminfo@mun.ca; Dean of Science; adeangradswk; Library Correspondence; Biochemistry Head; Marino, Paul; chemhead@mun.ca; jhanchar@mun.ca; math-head@mun.ca; Fletcher, Garth; Lagowski, Jolanta; psychology.head@mun.ca; wiloche@mun.ca; Catto, Norm
Cc: Simmons, Nancy
Subject: New Course in Computer Science and Calendar Change for COMP 2718

https://webmail.mun.ca/imp/message.php?index=20368
Dear Dr. Banzhaf,

Thank you for the opportunity to comment on the proposal for a new course, Computer Science 1401 Computing at the Movies and the change to the prerequisite for COMP-2718.

At its meeting of March 16, the Committee on Undergraduate Studies of the Faculty of Engineering and Applied Science determined that these proposed changes should have no academic 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 Canada A1B 3X5

Quoting cs-chair <cs-chair@mun.ca>:

> Hello,
> The Department of Computer Science is proposing the introduction of a new course, Computer Science 1401 Computing at the Movies. A copy of the course proposal is attached for your review.
> Also attached is a proposal to change the prerequisite for COMP-2718.
> We would appreciate receiving any comments by Friday, March 25, 2016.
Hi Wolfgang,

Thanks for passing this by us. I don't see any impact of these changes on any of our programs.

Thanks,
Dennis

On 16-02-26 04:31 PM, cs-chair wrote:
> Hello,
> The Department of Computer Science is proposing the introduction of a new course, Computer Science 1401 Computing at the Movies. A copy of the course proposal is attached for your review.
> Also attached is a proposal to change the prerequisite for COMP-2718.
> We would appreciate receiving any comments by Friday, March 25, 2016.
>
> Regards,
> Wolfgang Banzhaf
> Department Head
>
--
Dennis K. Peters, Ph.D., P.Eng., FEC | dpeters@mun.ca
Head, Electrical & Computer Engineering | http://www engr mun ca/~dpeters
Memorial University of Newfoundland | Ph: (709) 864-8929
St. John's, NL Canada A1B 3X5 | Fax: (709) 864-3490
Hi

I have reviewed the proposal for Computer Science 1401 and the changes to the prerequisites for COMP 2718. I have no concerns with either proposal.

Linda

Linda E. Rohr PhD
Associate Professor & Associate Dean Undergraduate Studies
Human Kinetics and Recreation, Memorial University

---Original Message---

From: cs-chair [mailto:cs-chair@mun.ca]
Sent: February-26-16 4:35 PM
To: Mercer, Stacey; fba.ad.undergrad@mun.ca<mailto:fba.ad.undergrad@mun.ca>; Hicks, Sue; Fraeliez, Beverly; dpeters@mun.ca<mailto:dpeters@mun.ca>; enghconsult@mun.ca<mailto:enghconsult@mun.ca>; associatevpoffice@grenfell.mun.ca<mailto:associatevpoffice@grenfell.mun.ca>; Hickey, Marie; miugconsultations@mi.mun.ca<mailto:miugconsultations@mi.mun.ca>; cvardy@mun.ca<mailto:cvardy@mun.ca>; Sherry.caines@med.mun.ca<mailto:Sherry.caines@med.mun.ca>; Volk, Maureen; DeanNurse; pharminfo@mun.ca<mailto:pharminfo@mun.ca>; Dean of Science; adeangradswk; Library Correspondence; Biochemistry Head; Mariol, Paul; chemhead@mun.ca<mailto:chemhead@mun.ca>; jhanchar@mun.ca<mailto:jhanchar@mun.ca>; math-head@mun.ca<mailto:math-head@mun.ca>; Fletcher, Garth; Lagowski, Jolanta; psychology.head@mun.ca<mailto:psychology.head@mun.ca>; wlocke@mun.ca<mailto:wlocke@mun.ca>; Catto, Norm
Cc: Simmons, Nancy
Subject: New Course in Computer Science and Calendar Change for COMP 2718
Music has no objections to these proposals.

Maureen Volk

-----Original Message-----
From: cs-chair [mailto:cs-chair@mun.ca]
Sent: February-26-16 4:35 PM
To: Mercer, Stacey; fba.ad.undergrad@mun.ca; Hicks, Sue; Fraize, Beverly;
dpeters@mun.ca; engconsult@mun.ca; associatevpoffice@grenfell.mun.ca; Hickey, Marie; miguconsultations@mi.mun.ca; cvardy@mun.ca; Sherry.caines@med.mun.ca; Volk, Maureen; DeanNurse; pharminfo@mun.ca; Dean of Science; deanugradswk;
Library Correspondence; Biochemistry Head; Marino, Paul; chemhead@mun.ca;
jhanchar@mun.ca; math-head@mun.ca; Fletcher, Garth; Lagowski, Jolanta;
psychology.head@mun.ca; wlocke@mun.ca; Catto, Norm
Cc: Simmons, Nancy
Subject: New Course in Computer Science and Calendar Change for COMP 2718

Hello,

The Department of Computer Science is proposing the introduction of a new course, Computer Science 1401 Computing at the Movies. A copy of the course proposal is attached for your review.

Also attached is a proposal to change to the prerequisite for COMP-2718.

We would appreciate receiving any comments by Friday, March 25, 2016.

Regards,
Wolfgang Banzhaf
Department Head

https://webmail.mun.ca/imp/message.php?index=20330
Hello Dr. Banaihaf

Myself and Dr. Carla Dillon, Associate Dean, Undergraduate Studies have reviewed the above proposed calendar changes and have no comments or concerns. Thanks for the opportunity to offer feedback.

Regards,

Csop Glew

CSOP GLEW, Hon. B.A., M.U.P. I MANAGER OF ACADEMIC PROGRAMS
School of Pharmacy
Memorial University of Newfoundland
St. John's, NL I A1B 3V6
Health Sciences Centre I Room H3435
T 709 777 6963 I F 709 777 7044
www.mun.ca/pharmacy

Please note that the deadline to apply for admission to the program in September 2016 was February 1, 2016.

Where people and ideas become.
Follow us: Facebook: www.facebook.com/schoolofpharmacy Twitter: www.twitter.com/schoolofpharm

-----Original Message-----
From: cs-chair [mailto:cs-chair@mun.ca]
Sent: February-26-16 4:35 PM
To: Mercer, Stacey; fba.ad.undergrad@mun.ca; Hicks, Sue; Fraize, Beverly; dpeters@mun.ca; engrcconsult@mun.ca; associatevoffice@grenfell.mun.ca; Hickey, Marie; miugconsultations@mi.mun.ca; cvardy@mun.ca; Sherry.caines@med.mun.ca; Volk, Maureen; DeanNurse; pharminfo@mun.ca; Dean of Science; aedeanugradswk; Library Correspondence; Biochemistry Head; Marino, Paul; chemhead@mun.ca; jhanchar@mun.ca; math-head@mun.ca; Fletcher, Garth; Lagowski, Jolanta; psychology.head@mun.ca; wlocke@mun.ca; Catto, Norm
This message was written in a character set other than your own. If it is not displayed correctly, click here to open it in a new window.

Thanks for your feedback, it is always good to keep in mind the limits of what one proposes.

Best regards,
Wolfgang

On 2016-03-02 11:20 AM, Hennessey, Todd wrote:
>
> Thanks so much for this response and the clarification. I really do
> hope that my comments didn’t sound overly critical of the course, that
> was not my intent in the least.
>
> Best of luck with it, and thanks again for reaching out.
>
> Todd
>
> Todd Hennessey
>
> Head, Division of Fine Arts
>
> Grenfell Campus, Memorial University of Newfoundland
>
> *From:* CS-Chair [mailto:cs-chair@mun.ca]
> *Sent:* March 2, 2016 10:09 AM
> *To:* Hennessey, Todd <THENNESSEY@grenfell.mun.ca>
> *Cc:* Computer Science Chair <cs-chair@mun.ca>
> *Subject:* Re: FW: New Course in Computer Science and Calendar Change

https://webmail.mun.ca/imp/message.php?index=20369

3/3/2016
Dear Dr. Hennessey,

thanks very much for your comment about our new course COMP 1401.
The outline you received for consultation is the material we currently
have to share for this course.

We don't see this course (or its inspiration, ARCH 2493) as wandering
into film criticism, rather it is about how computing and its
professionals are depicted in film. We agree that all professions
may have complaints about how they are depicted, and hence these
professions could address these depictions -- Archaeology has done
so (through ARCH 2493) for over ten years in a form that is acceptable
to the HUN community, and we think that as we are following their model,
COMP 1401 should be acceptable as well.

With regard to your concerns on specific film choices: both Hackers and
WarGames are indeed depictions of hacker culture and not hacking itself.
In any case, the film choices certainly are not carved in stone and
can be
adjusted as the instructor sees fit, as long as these choices are
consistent
with the objectives mentioned above and described in more detail in the
proposal.

While this is not a technical course in Computer Science, it will give
students an opportunity to relate to a rapidly developing discipline
that is, in one way or another, on many people's mind. Being exposed
to different depictions of this discipline in the media will allow
students
to form their own opinion. We consider this course as education in the
truest sense.

Hope this helps,

Wolfgang Banzhaf, Head
Department of Computer Science
Memorial University of Newfoundland
St. John’s Campus

On 2016-02-29 10:40 AM, Hennessey, Todd wrote:

Hello and good morning,

I wonder if there might be a course outline or more information
available for COMP 1401. At first blush I do have some concerns
about the nature, aims and objectives of a course that appears, at
least in part, to wander into film criticism. I appreciate that
this is an introductory course, and applaud the idea of using film
as a stimulus to provoke discussion, but I would sound a note of
cautions that one result will be negative criticism of films that
aren't 'about' anything to do with computers or computer science.
While it's perhaps generally true that computer scientists are
misrepresented on film, I would argue so is every profession (ask
a few lawyers or doctors how they feel about the representation of
their profession on film!). So while a film like "Hackers"
(notably absent from this list) might go out of its way to present
an interesting view of that subculture, it's not about hacking.

https://webmail.mun.ca/imp/message.php?index=20369

3/3/2016
"War games" isn't as much about hacking as it is about the
generalized 'red fear' present in many American films of that
generation.

In any event, if there is more information to look at, I would be
happy to do so, recognizing that the planners may well have
thought through these issues.

Cheers,

Todd

Todd Hennessey

Head, Division of Fine Arts

Grenfell Campus, Memorial University of Newfoundland

*From:* Acting Associate VP - Academic
*Sent:* February 29, 2016 8:27 AM
*To:* Gallant, Robert <rggallant@grenfell.mun.ca>
<mailto:rggallant@grenfell.mun.ca>; Vodden, Kelly
<mailto:kvodden@grenfell.mun.ca> <mailto:kvodden@grenfell.mun.ca>;
Hennessey, Todd <THENNESSEY@grenfell.mun.ca>
<mailto:THENNESSEY@grenfell.mun.ca>
*Cc:* Nofsall-Bennett, Sharon <snoftsall@grenfell.mun.ca>
<mailto:snoftsall@grenfell.mun.ca>; Daniels, Karen
<mailto:kdaniels@grenfell.mun.ca> <mailto:kdaniels@grenfell.mun.ca>;
Fisher, Bernice <bfisher@grenfell.mun.ca>
<mailto:bfisher@grenfell.mun.ca>; Humphries, Linda
<mailto:lhumphri@grenfell.mun.ca> <mailto:lhumphri@grenfell.mun.ca>
*Subject:* FW: New Course in Computer Science and Calendar Change
for COMP 2718

Good Morning,

Please see attached for consultation, thank you.

/Nora Lundrigan for/

Dr. Jim Duffy

Acting Associate Vice-President (Grenfell Campus) Academic

Memorial University

Corner Brook, NL

A2H 6P9

Tel: 709 639-6526 Fax: 709 637-6218

*From:* cs-chair <cs-chair@mun.ca>
*Sent:* February 29, 2016 4:31 PM
*To:* stacey@mun.ca <mailto:stacey@mun.ca>;
fbad.undergrad@mun.ca <mailto:fbad.undergrad@mun.ca>;
shicks@mun.ca <mailto:shicks@mun.ca>; bbraize@mun.ca
<mailto:bbraize@mun.ca>; dpeters@mun.ca <mailto:dpeters@mun.ca>;
engrconsult@mun.ca <mailto:engrconsult@mun.ca>

https://webmail.mun.ca/imp/message.php?index=20369

3/3/2016
Hello,

The Department of Computer Science is proposing the introduction of a new course, Computer Science 1401 Computing at the Movies. A copy of the course proposal is attached for your review.

Also attached is a proposal to change the prerequisite for COMP-2718.

We would appreciate receiving any comments by Friday, March 25, 2016.

Regards,
Wolfgang Banzhaf
Department Head

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

cs-chair@mun.ca <mailto:cs-chair@mun.ca>

This electronic communication is governed by the terms and conditions at


This electronic communication is governed by the terms and conditions at


This electronic communication is governed by the terms and conditions at
Dr. Banzhaf,

Thank you for the opportunity to review and comment on the proposed new prerequisites for the Computer Science course 2718 Development Tools, Work Flows and Concepts.

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

Sincerely,

Derek House

Derek House
Chair, Undergraduate Studies Committee
Memorial University
Marine Institute, Memorial University
TEL: 709-778-0586
FAX: 709-778-0394
Derek.House@mi.mun.ca

-----Original Message-----
From: cs-chair [mailto:cs-chair@mun.ca]
Sent: Friday, February 26, 2016 4:32 PM
To: stacey@mun.ca; fba.ad.undergrad@mun.ca; shicks@mun.ca; bfraize@mun.ca; dpeters@mun.ca; engconsult@mun.ca; associatevpooffice@grenfell.mun.ca; mehickey@mun.ca; MIUG Consultations <MIUGconsultations@mi.mun.ca>; cvardy@mun.ca;
TO: Wolfgang Banzhaf

FROM: Alison Ambi, Science Research Liaison Librarian

RE: New course proposal – COMP 1401 Computing at the Movies

DATE: April 24, 2016
## Availability of Proposed Films

<table>
<thead>
<tr>
<th>Film Title</th>
<th>Film Release Date</th>
<th>Available in MUN Libraries?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westworld</td>
<td>1973</td>
<td>No</td>
</tr>
<tr>
<td>Dream machine</td>
<td>1982</td>
<td>No</td>
</tr>
<tr>
<td>Desk set</td>
<td>1957</td>
<td>No</td>
</tr>
<tr>
<td>The terminal man</td>
<td>1974</td>
<td>No</td>
</tr>
<tr>
<td>Pirates of Silicon Valley</td>
<td>1999</td>
<td>Grenfell: HD9696.2 .U63 C3 2005</td>
</tr>
<tr>
<td>War games</td>
<td>1983</td>
<td>No</td>
</tr>
<tr>
<td>The net</td>
<td>1995</td>
<td>No</td>
</tr>
<tr>
<td>The social network</td>
<td>2010</td>
<td>No</td>
</tr>
<tr>
<td>Revolution OS</td>
<td>2001</td>
<td>No</td>
</tr>
<tr>
<td>Men, women &amp; children</td>
<td>2014</td>
<td>No</td>
</tr>
<tr>
<td>A.I.</td>
<td>2001</td>
<td>No</td>
</tr>
</tbody>
</table>

## Availability of Proposed Readings

<table>
<thead>
<tr>
<th>Citation</th>
<th>Available in MUN Libraries?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cringely, R.X. (1996) Accidental Empires: How the Boys of Silicon Valley Make Their Millions, Battle Foreign Competition, and Still Can’t Get a Date. [Chapter 10: &quot;The Prophet&quot;]</td>
<td>N</td>
</tr>
</tbody>
</table>
Approximating the Cost of Acquiring all Course Materials

MUN Libraries owns 2 or the 12 films that would be screened as part of this course on DVD. Assuming an average cost of $25 per DVD (average price estimated from amazon.ca), acquiring the other 10 would cost the library approximately $250.

The following two proposed assigned readings are not available in MUN Libraries:

   This book is out of print. Prices for used copies range from about $20 - $30 (Information from GOBI)

   The library does not subscribe to this journal. We would need to correspond with the publisher to determine the cost of an institutional subscription to volume 8 of Interaction Studies or to determine if access to just this article could be obtained. (Institutional prices for access to a single volume are in the region of 300 Euros. Hopefully a more reasonable method of providing access to a single article can be found.)

Correspondence with the Author of the Proposal

Todd Wareham, the author of the proposal, has indicated that he will find an alternate reading available in MUN libraries to replace Turkle (2007). The total cost to the library to acquire all resources will therefore be in the region of $350 once taxes and other charges are applied.

After I questioned the statement in the proposal because of the copyright infringement implications,

“New library holdings may not be required for any films and documentaries shown as part of the course as movies will be streamed.”

Todd consulted with the MUN copyright officer and has assured me that he has access to legally obtained personal copies on DVD for all the required films. While the personal copies might suffice for the first time that the course is offered, once it is in the calendar, future instructors could reasonably expect the library to provide the necessary support. The library will still need to acquire the films, but the acquisition could be spread over a couple of years.

Conclusion

The library is able to acquire the book and films to support this proposed course over the next two years.

Alison Ambi, Collections Division, QEII Library, St. John’s, Newfoundland, Canada A1B 3Y1
Phone: 709 864-7125 Email: aambi@mun.ca Fax: 709 864 2153
October 4, 2016

TO: All Members, Faculty Council of Science

FROM: Joan Burry, Secretary
Committee on Undergraduate Studies, Faculty of Science

SUBJECT: Calendar Changes and New Course Proposals

At a meeting held on September 29, 2016, the Undergraduate Studies Committee of the Faculty of Science agreed that the following items be forwarded to Faculty Council for approval:

1. Department of Physics and Physical Oceanography
   - Changes to course descriptions, including some prerequisite changes, for 17 Physics courses

2. Department of Computer Science
   (i) Calendar change to amend the prerequisite for Computer Science 2716
   (ii) Proposal for new course Computer Science 1401: Computing at the Movies

3. Department of Mathematics and Statistics
   - Calendar change to the program regulations pertaining to the usage limitations on Mathematics 1050 and 1051

Joan Burry
Associate Registrar and
Secretary: Committee
on Undergraduate Studies,
Faculty of Science
Proposal
Calendar Change to
Mathematics and Statistics Program Regulations

Executive Summary

We propose to establish a new departmental regulation based upon an existing usage limitation on Mathematics 1050 and 1051.

Resource Implications: Instructional Costs

None

Consultations

Comments were received from Grenfell Campus, the Marine Institute, the Faculty of Education, the Faculty of Humanities and Social Sciences, the Department of Ocean Sciences, and the Department of Physics and Physical Oceanography.

Library Holdings and/or Other Resources Required

As indicated in the attached memo from Alison Ambi, Collections Librarian (Mathematics and Statistics), these changes will not require additional library holdings.

Signature of Unit Head (if appropriate):

Date:

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

Date:
SUMMARY PAGE FOR SENATE

Approval Form

Program Title: None

Calendar Change(s)

Under the Faculty of Science, page 497, 2015-2016 Calendar, 9.8.1 Regulations, add the following as a new Clause 2, and renumber the existing Clauses 3 and 4 accordingly:

"2. Students who have already obtained 6 or more credit hours in Mathematics or Statistics courses numbered 2000 or above should not register for Mathematics 1050 or Mathematics 1051, and cannot receive credit for either course.

3. Students with credits in Mathematics or Statistics not listed in this Calendar must consult the Department for equivalency before taking any course listed below.

4. Placement in Mathematics 1000, 1050, 1051 and 1090, and Statistics 1510, shall be determined by the Department of Mathematics and Statistics on the basis of the student's score on the Mathematics Placement Test (MPT), SAT Subject Test in Mathematics Level 1, or other acceptable criteria-based test. From the point of view of degree regulations, Applied Mathematics, Pure Mathematics, and Statistics are considered to be one subject area."

Secondary Calendar Changes

Under the Faculty of Science, page 527, 2015-2016 Calendar, 10.8.3 Mathematics Courses, amend the usage limitation for Mathematics 1050 as follows:

"1050 Finite Mathematics I covers topics which include sets, logic, permutations, combinations and elementary probability.

CR: the former MATH 1150
LC: 4
PR: a combination of placement test and high school mathematics scores acceptable to the department or MATH 103F
UL: At most 9 credit hours in Mathematics will be given for courses completed from the following list subject to normal credit restrictions: Mathematics 1000, 1031, 1050, 1051, the former 1080, the former 1081, 1090, the former 1150 and 1151. With the exception of those already admitted at the time of registration in this course to a Bachelor of Education program that requires this course, students who already have obtained credit for 6 or more Mathematics credit hours numbered 2000 or above are not permitted to register for this course nor can they receive credit for it. Students who have already obtained 6 or more credit hours in Mathematics or Statistics courses numbered 2000 or above should not register for this course, and cannot receive credit for it."

Under the Faculty of Science, page 527, 2015-2016 Calendar, 10.8.3 Mathematics Courses, amend the usage limitation for Mathematics 1051 as follows:
"1051 Finite Mathematics II covers topics which include elementary matrices, linear programming, elementary number theory, mathematical systems, and geometry.

CR: the former MATH 1151
LC: 4
PR: a combination of placement test and high school mathematics scores acceptable to the department or MATH 103F
UL: At most 9 credit hours in Mathematics will be given for courses completed from the following list subject to normal credit restrictions: Mathematics 1000, 1031, 1050, 1051, the former 1080, the former 1081, 1090, the former 1150 and 1151. With the exception of those already admitted at the time of registration in this course to a Bachelor of Education program that requires this course, students who already have obtained credit for 6 or more Mathematics credit hours numbered 2000 or above are not permitted to register for this course nor can they receive credit for it. Students who have already obtained 6 or more credit hours in Mathematics or Statistics courses numbered 2000 or above should not register for this course, and cannot receive credit for it."

Rationale

The first sentence in the usage limitation for Mathematics 1050 and Mathematics 1051 is identical to the existing Departmental Regulation 9.8.1.1. As a result, concerns have been raised that this might lead to the incorrect assumption that the usage limitation consists solely of a reiteration of that regulation. As such, we propose to establish the second sentence in the usage limitation as a new regulation for greater clarity and to avert any such misunderstanding. At the same time, the opportunity is being taken to amend the usage limitation in two respects. First, there is no longer a Bachelor of Education program that specifically requires Mathematics 1050 or Mathematics 1051, so the corresponding exception is now superfluous. Second, it is not possible to bar a student from registering for Mathematics 1050 or Mathematics 1051 in the manner described, and so the phrasing "are not permitted to register for this course" is not operationally accurate.

Consultations Sought From

1. Grenfell Campus
2. Marine Institute
3. Faculty of Education
4. Faculty of Humanities and Social Sciences
5. Department of Biochemistry
6. Department of Biology
7. Department of Chemistry
8. Department of Computer Science
9. Department of Earth Sciences
10. Department of Ocean Sciences
11. Department of Physics and Physical Oceanography
12. Department of Psychology

Consultations Sought From

Yes

Consultations Sought From

Yes

Consultations Sought From

Yes

Consultations Sought From

Yes

Consultations Sought From

Yes

Consultations Sought From

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: _________________________________________
Subject: Request for Consultation: New Departmental Regulation
From: Shannon Patrick Sullivan <shannon@mun.ca>
Date: 15/04/2016 12:43 AM
To: associatevpoffice@grenfell.mun.ca, miugconsultations@mi.mun.ca, staceym@mun.ca, chemhead@mun.ca, cs-chair@mun.ca, jolantal@mun.ca, biohead@mun.ca, pmarino@mun.ca, jhanchar@mun.ca, fletcher@mun.ca, psychology.head@mun.ca, shicks@mun.ca, bfraize@mun.ca, aambi@mun.ca

Greetings,

Attached is a proposal to introduce a new Departmental Regulation for the Department of Mathematics and Statistics. If you have any comments on this proposal, we would appreciate receiving your responses no later than Friday, May 12th.

Thanks,
Shannon

--

Dr. Shannon Patrick Sullivan
Dept. of Mathematics & Statistics
Senior Faculty Advisor, Faculty of Science
Memorial University of Newfoundland
St. John's • NL • Canada
shannon@mun.ca • www.ucs.mun.ca/~shannon

---

Attachments:

New Math Dept Reg 9.8.1.2.pdf 20.5 kB
TO: Shannon Sullivan

FROM: Alison Ambi, Science Research Liaison Librarian

RE: Program regulation changes for Mathematics 1050 and 1051

DATE: April 17, 2016

The proposed calendar changes to the program regulations for Mathematics 1050 and 1051 have no implications for library resources.
Subject: Fw: Request for Consultation: New Departmental Regulation
From: "Gallant, Robert" <rgallant@grenfell.mun.ca>
Date: 18/04/2016 9:59 AM
To: "shannon@mun.ca" <shannon@mun.ca>
CC: "Howell, Jared" <jahowell@grenfell.mun.ca>

Dr. Sullivan, math faculty at Grenfell support the change.

Dr. R. Gallant
Head of Division of Science, Grenfell Campus, Memorial University

From: Howell, Jared
Sent: Friday, April 15, 2016 11:01 AM
To: Daniels, Karen; Gallant, Robert
Subject: Re: Request for Consultation: New Departmental Regulation

Rob,

This change seems reasonable. It shouldn't affect students at Grenfell as we will no longer be offering 1050/1051.

Dr. Jared Howell

Chair of Computational Mathematics
Memorial University
Grenfell campus
AS3013

From: Daniels, Karen
Sent: April 15, 2016 9:34 AM
To: Division of Science Faculty
Subject: FW: Request for Consultation: New Departmental Regulation

Good Morning,

Please see attached for consultation and forward any comments to Dr. Robert Gallant.

Regards,

Karen Daniels
Division of Science
Grenfell Campus
Subject: RE: Request for Consultation: New Departmental Regulation
From: MIUG Consultations <MIUGconsultations@mi.mun.ca>
Date: 25/04/2016 8:36 AM
To: Shannon Patrick Sullivan <shannon@mun.ca>

Shannon,

Thank you for the opportunity to review and comment on the proposed change to the Departmental Regulation 9.8.1.2

This change will have no effect on the programs at the Marine Institute. We are happy to support this change as presented.

Derek Howse

Derek Howse
Chair, Undergraduate Studies Committee
Marine Institute, Memorial University
TEL: 709-778-0586
FAX: 709-778-0394
Derek.Howse@mi.mun.ca

-----Original Message-----
From: Shannon Patrick Sullivan [mailto:shannon@mun.ca]
Sent: Friday, April 15, 2016 12:44 AM
To: associatevpoffice@grenfell.mun.ca; MIUG Consultations
<MIUGconsultations@mi.mun.ca>; slaceym@mun.ca; chemhead@mun.ca; cs-chair@mun.ca;
jolantal@mun.ca; biochead@mun.ca; pmaring@mun.ca; jhanchar@mun.ca; fletcher@mun.ca;
psychology.head@mun.ca; shicks@mun.ca; bbraige@mun.ca; aambi@mun.ca
Subject: Request for Consultation: New Departmental Regulation

Greetings,

Attached is a proposal to introduce a new Departmental Regulation for the Department of Mathematics and Statistics. If you have any comments on this proposal, we would appreciate receiving your responses no later than Friday, May 12th.

Thanks,
Shannon

--
Dr. Shannon Patrick Sullivan
Dept. of Mathematics & Statistics
Senior Faculty Advisor, Faculty of Science Memorial University of Newfoundland St.
John's * NL * Canada shannon@mun.ca * www.ucs.mun.ca/~shannon
This email is governed by the Terms and Conditions found in our Disclaimer: http://www.ml.mun.ca/ict/disclaimer.
Subject: Request for Consultation: New Departmental Regulation
From: "Mellor, Judith" <jmellor@mun.ca>
Date: 15/04/2016 10:20 AM
To: "Sullivan, Shannon" <shannon@mun.ca>

Dear Shannon:

Thank you for your e-mail. We support your proposal on this regulation and agree that the exception regarding the Bachelor of Education is indeed superfluous.

Best regards,
Judith

Judith Mellor
Co-ordinator, Undergraduate Programs
Faculty of Education
Memorial University of Newfoundland
T: 709.864.7554
F: 709.864.2623

-----Original Message-----
From: Shannon Patrick Sullivan [mailto:shannon@mun.ca]
Sent: April-15-16 12:45 AM
To: associatevpoffice@grenfell.mun.ca; miugconsultations@mi.mun.ca; Mercer, Stacey <staceym@mun.ca>; chemhead@mun.ca; cs-chair@mun.ca; Lagowski, Jolanta <jolantal@mun.ca>; Biochemistry Head <biochead@mun.ca>; Marino, Paul <pmarino@mun.ca>; jhanchar@mun.ca; Fletcher, Garth <fletcher@mun.ca>; psychology.head@mun.ca; Hicks, Sue <shicks@mun.ca>; Fraize, Beverly <bfraize@mun.ca>; Ambi, Alison <aambi@mun.ca>
Subject: Request for Consultation: New Departmental Regulation

Greetings,

Attached is a proposal to introduce a new Departmental Regulation for the Department of Mathematics and Statistics. If you have any comments on this proposal, we would appreciate receiving your responses no later than Friday, May 12th.

Thanks,
Shannon

--

Dr. Shannon Patrick Sullivan
Dept. of Mathematics & Statistics
Senior Faculty Advisor, Faculty of Science Memorial University of Newfoundland St. John's * NL * Canada shannon@mun.ca * www.ucs.mun.ca/~shannon

Attachments:

 winmail.dat 25.2 kB
Subject: FW: Request for Consultation: New Departmental Regulation
From: "Mercer, Stacey" <staceym@mun.ca>
Date: 15/04/2016 4:26 PM
To: "Sullivan, Shannon" <shannon@mun.ca>

FYI

Stacey Griffiths
Faculty of Humanities and Social Sciences
Memorial University of Newfoundland
St. John's, NL A1C 5S7
709-864-8255

-----Original Message-----
From: Catto, Norm
Sent: April 15, 2016 4:24 PM
To: Mercer, Stacey
Subject: RE: Request for Consultation: New Departmental Regulation

Dear Stacey:

I am familiar with this through SCUGS and have no issue.

Best wishes
Norm

Norm Catto
Head, Department of Geography
Memorial University
St. John's NL A1B 3X9
Canada
1-709-864-7463
Fax 1-709-864-3119

-----Original Message-----
From: Mercer, Stacey
Sent: April-15-16 4:08 PM
To: Locke, Wade; Catto, Norm
Subject: FW: Request for Consultation: New Departmental Regulation

Good afternoon,
You are invited to give feedback on the attached proposal.
Thank you,

Stacey Griffiths
Faculty of Humanities and Social Sciences Memorial University of Newfoundland St. John's, NL A1C 5S7
709-864-8255

-----Original Message-----
From: Shannon Patrick Sullivan [mailto:shannon@mun.ca]
Sent: April 15, 2016 12:45 AM
To: asociateyopooffice, grants, mun.ca; miugconsultations@al.mun.ca; Mercer, Stacey;
Subject: RE: Request for Consultation: New Departmental Regulation
From: "Fletcher, Garth" <fletcher@mun.ca>
Date: 15/04/2016 10:47 AM
To: "Sullivan, Shannon" <shannon@mun.ca>

Hi Shannon: I have read through the proposal and find no reason to think that the proposed changes will have any impact on the Department of Ocean Sciences' curriculum.

Best regards
Garth

-----Original Message-----
From: Shannon Patrick Sullivan [mailto:shannon@mun.ca]
Sent: April-15-16 12:45 AM
To: associatevpoffice@grenfell.mun.ca; miugconsultations@mi.mun.ca; Mercer, Stacey; chemhead@mun.ca; cs-chair@mun.ca; Lagowski, Jolanta; Biochemistry Head; Marino, Paul; jhanchar@mun.ca; Fletcher, Garth; psychology.head@mun.ca; Hicks, Sue; Fraize, Beverly; Ambi, Alison
Subject: Request for Consultation: New Departmental Regulation

Greetings,

Attached is a proposal to introduce a new Departmental Regulation for the Department of Mathematics and Statistics. If you have any comments on this proposal, we would appreciate receiving your responses no later than Friday, May 12th.

Thanks,
Shannon

--
Dr. Shannon Patrick Sullivan
Dept. of Mathematics & Statistics
Senior Faculty Advisor, Faculty of Science Memorial University of Newfoundland St.
John's * NL * Canada shannon@mun.ca * www.uos.mun.ca/~shannon

Attachments:

winmail.dat 4.0 kB
Subject: FW: Request for Consultation: New Departmental Regulation
From: "Martin Plumer" <plumer@mun.ca>
Date: 20/04/2016 8:40 AM
To: "Shannon Patrick Sullivan" <shannon@mun.ca>

Hi Shannon,

Physics is agreeable with this proposal.

Cheers,
Martin

-----Original Message-----
From: Lagowski, Jolanta [mailto:jolantal@mun.ca]
Sent: April-15-16 9:16 AM
To: Martin Plumer
Subject: FW: Request for Consultation: New Departmental Regulation

Martin,

For yours and USC consideration. I am fine with this proposal.

Jolanta

On 2016-04-15, 12:45 AM, "Shannon Patrick Sullivan" <shannon@mun.ca> wrote:

Greetings,

Attached is a proposal to introduce a new Departmental Regulation for the Department of Mathematics and Statistics. If you have any comments on this proposal, we would appreciate receiving your responses no later than Friday, May 12th.

Thanks,
Shannon

--
Dr. Shannon Patrick Sullivan
Dept. of Mathematics & Statistics
Senior Faculty Advisor, Faculty of Science Memorial University of Newfoundland St. John's . NL . Canada shannon@mun.ca.
www.ucs.mun.ca/~shannon

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No virus found in this message.
Checked by AVG - www.avg.com
Version: 2016.0.7497 / Virus Database: 4545/12007 - Release Date: 04/10/16
October 4, 2016

TO: All Members, Faculty Council of Science

FROM: Joan Burry, Secretary, Undergraduate Studies Committee, Faculty of Science

SUBJECT: Response to Senate Committee on Undergraduate Studies re: Proposal for Blended Learning Definition

In a June 29, 2016 memorandum, the Senate Committee on Undergraduate Studies requested input from academic units on a proposal from the Director of CITL that a new definition, specially “blended learning” be included in the University Calendar, and that sub-definitions be approved for administrative purposes.

At the September 29, 2016 meeting of the Undergraduate Studies Committee of the Faculty of Science, the proposal was discussed. Committee members felt that such a definition is not necessary, that it is overly prescriptive and could impinge on an instructor's academic freedom. It was felt that such information could be more appropriately included in course outlines and in the registration procedures document published each semester. Therefore, the Committee does not recommend support of this proposal.

Joan Burry
Associate Registrar and
Secretary: Committee
on Undergraduate Studies,
Faculty of Science
22 September 2016

TO: Secretaries, Academic Councils, Faculties/Schools/Grenfell Campus/
    Marine Institute
    Student Unions (St. John's Campus, Grenfell Campus, Marine Institute)
    Student Health Services, CITL

FROM: Jennifer Porter, Secretary, Senate Committee on Undergraduate Studies

SUBJECT: Blended Learning

I refer to the memorandum dated 29 June 2016 regarding blended learning.

Since it is the intention of the Senate Committee on Undergraduate Studies to deal with this matter as soon as possible, I am writing to remind you that the deadline for response is 31 October 2016.

Thank you for your timely assistance in this very important matter.

A copy of the memorandum concerned and the documentation related to this matter is attached for your information.

If you have any questions or require clarification regarding the above, please get in touch with me by phone at 864-4410 or by e-mail at jimporter@mun.ca.

Jennifer Porter
Deputy Registrar and
Secretary to the Committee

JP/Jmn

Attachments

cc: Committees on Undergraduate Studies
    Deans/Vice-Presidents
    Provost and Vice-President (Academic)
29 June 2016

TO: Secretary, Academic Councils, Faculties/Schools/Grenfell Campus/Marine Institute
Student Unions (St. John’s Campus, Grenfell Campus, Marine Institute)
CITL, School of Graduate Studies, Student Health Services, University Counselling Centre

FROM: Jennifer Porter, Secretary, Senate Committee on Undergraduate Studies

SUBJECT: Blended Learning

At a meeting held on 23 June 2016, the Senate Committee on Undergraduate Studies considered a memorandum from Ms. S. Ceyle, former Director of CITL, and Ms. S. Singleton, University Registrar, regarding Blended Learning.

The Committee recognizes the need for the University to formalize its definition of Blended Learning and, as such, endorsed the proposed definition for inclusion in the Glossary of Terms in the University Calendar and its sub-definitions as a working model for course delivery.

This documentation is now being forwarded to you for consideration and feedback. Since the Senate Committee on Undergraduate Studies would like to deal with this matter as expeditiously as possible, I am requesting that you respond by the end of October 2016.

Thank you for your timely assistance in this very important matter.

If you have any questions or require clarification regarding the above, please get in touch with me by phone at 864-4410 or by e-mail at jporter@mun.ca.

Yours truly,

Jennifer Porter
Deputy Registrar and Secretary to the Committee

JP/mm

Attachment

cc: Committees on Undergraduate Studies
Deans/Vice-Presidents
Deputy Provost (Students) and Associate Vice-President (Academic) Undergraduate Studies
TO:     Dr. Noreen Golfman, Provost and Vice-President (Academic),
        Office of the Provost and Vice-President (Academic)

FROM:   Ms. Susan Cleyle, Director, CITL, and
        Ms. Sheila Singleton, Registrar, Office of the Registrar

DATE:   June 14, 2016

SUBJECT:  BLENDED LEARNING

Last winter, a presentation was made to Dean's Council regarding Blended Learning and
the need for a formal definition to be included in the University Calendar. After the
discussion, it was agreed that the draft be refined incorporating the suggestions of
Dean's Council, the context for the new definition within the University Calendar be
established and a recommendation be made to the Provost regarding next steps.

Calendar Context

In the Glossary of Terms in the University Calendar, a course is defined as "a unit of
work in a particular subject normally extending through one semester or session, the
completion of which normally carries credit toward the fulfillment of the requirements of
certain degrees, diplomas or certificates". Credit hour is defined as "the measure used
to reflect the relative weight of a given course toward the fulfillment of appropriate
degree, diploma, certificate, major, minor, or other program requirements. A weight of
one credit hour normally means that the course meets for lectures one hour per week
for the duration of a semester or two hours per week for the duration of a session.
Unless otherwise indicated, a course normally has a credit value of 3 credit hours". A
distance education/online course is defined as "a university course designed for
people who wish to study outside a traditional university setting. Instructors and
students are separated by time and/or space". While the definition is silent on the credit
hour equivalency for an online course, the assumption has always been that the online
offering would cover the same material as an on-campus offering and that the credit
hours associated with the course would be constant regardless of the mode of delivery.
Definition

**Blended learning** is defined as “an on-campus course where a portion of face-to-face class time is replaced by online activity”. Classroom and online activities and course materials are selected to complement each other, to engage students and to achieve specified learning outcomes. Blended learning can:

- increase the amount and quality of faculty-to-student and student-to-student interaction;
- increase opportunities for active and collaborative learning and assessment before, during and after lectures;
- help students prepare for class discussions or lab work;
- facilitate the creation and identification of varied and engaging media for presenting course content; and,
- allow class time to be spent on active learning by shifting background or foundational content to the online environment.

With the introduction of **blended learning**, it is useful to have sub-definitions that provide breakdowns for the amount of time a course spends in the face-to-face and online environments. These sub-definitions can apply to both lecture hours and laboratory hours in a course offering. The benefits of having this clearly defined include helping with institutional scheduling, promoting blended learning options during the creation of the semester course offerings, optimizing classroom utilization and providing flexibility to students and instructors.

**Blend 1**: 2 hours of face-to-face class time with 1 hour replaced by online activities/week OR 2 weeks of face-to-face class time with a third week replaced by online activities;

**Blend 2**: 1 hour of face-to-face class time with 2 hours replaced by online activities/week OR 1 week of face-to-face class time with two weeks replaced by online activities;

**Blend 3**: 1.5 hours of face-to-face class time with 1.5 hours replaced by online activities/week OR 1.5 weeks of face-to-face class time with 1.5 weeks replaced by online activities.
Recommendation

The Senate Committee on Undergraduate Studies is asked to approve the definition of *blended learning* as “an on-campus course where a portion of face-to-face class time is replaced by online activity” for inclusion in the Glossary of Terms in the University Calendar, and to approve the sub-definitions as a working model for course delivery.

Susan Cleyle  
Sheila Singleton

cc  Dr. S. Cadigan,  
Associate Vice-President (Academic) Faculty Affairs *Pro Tempore*
Hi Gail,

the April 27 reviewed version of Biochemistry 6999 and the calendar changes has been approved with 13 votes in favour (Kapil, Kur, Cyr, Rob, Christina, Kareem, Len, Carolyn, Ron, Ratana, Hari, Stepannie and myself), none against. We can now request the approval of the Faculty Council for these changes.

-j

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

Subject: Fwd: Re: Biochemistry calendar changes  
Date: Thu, 28 Apr 2016 11:18:08 -0230  
From: JC Loredo-Osti <jcloredoosti@mun.ca>  
To: Kapil Tahlan <ktahlan@mun.ca>, Christina Bottaro <cbottaro@mun.ca>, JC Loredo-Osti <jcloredoosti@mun.ca>, Gail Kenny <gkenny@mun.ca>, Len Zedel <lzedel@mun.ca>, Ron Haynes <rhaynes@mun.ca>, Ratana Chuenpagdee <ratanac@mun.ca>, Minglun Gong <gong@mun.ca>, Kareem Azmy <kazmy@mun.ca>, Rob Bertolo <rbertolo@mun.ca>, Hari Kunduri <hkunduri@mun.ca>, Wareham, Todd <harold@mun.ca>, A. Kurt Gamperl <kgamperl@mun.ca>, Stephanie H. Curnoe <curnoe@mun.ca>, Cyr Couturier <Cyr.Couturier@mi.mun.ca>, Carolyn Walsh <cwalsh@play.psych.mun.ca>, Joseph S Wroblewski <jwroblew@mun.ca>

Dear All,

attached is the reviewed version of the Biochemistry calendar changes and course approval request. If something needs further clarification, please, let me know at your earliest convenience.

-j

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

Subject: Re: Biochemistry calendar changes  
Date: Thu, 28 Apr 2016 10:37:38 -0230  
From: Robert Bertolo <rbertolo@mun.ca>  
To: JC Loredo-Osti <jcloredoosti@mun.ca>  
CC: Lewis, Betty Ann <elewis@mun.ca>, Sinnott, Anne <asinnott@mun.ca>, Robert Brown <rbrown@mun.ca>

Hi JC
Here is the edited version for re-distribution. The changes are highlighted in yellow.

I'll let you distribute to the committee if you approve of this version.

Thanks
Rob

On 27/04/2016 11:28 PM, JC Loredo-Osti wrote:
> Hi Rob,
> >
> > I think you have seen all comments. You can proceed to make the
> > changes at your earliest convenience.
> > -j
> >
> >
> > On 21/04/16 11:33 PM, Rob Bertolo wrote:
> >> Hi JC
> >>
> >> I can make those change if everyone is done with their feedback. I'm
> >> cramming my marking in the next few days, so I can send it to you
> >> early next week?
> >>
> >> Thanks
> >> Rob
> >
> >
> > --
> > 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

--
Robert Bertolo, PhD
Canada Research Chair in Human Nutrition
Professor
Department of Biochemistry
Memorial University of Newfoundland
St. John's, NL, Canada A1B 3X9
Phone: 709-864-7954  Fax: 709-864-2422
Biochemistry Graduate Calendar Changes for 2016-2017
proposed changes as of April 18, 2016

Changes to two graduate programs to 1. change Special Topics course number 6000 to a regular course offering and 2. add the requirement for Biochemistry 6999, and remove the requirement for attendance at seminars.

Rationale:
Biochemistry 6000 is designed to provide current knowledge about advances and controversies in lipid and lipoprotein metabolism in the context of health and disease. The topics are at present not available in other courses at Memorial University. It has formerly been offered as a Special Topics course, but is now being converted to a regular course due to the demand for the course.

Attendance at and participation in the departmental seminar program has been a long standing requirement in the Department of Biochemistry. It has been decided to formalize attendance and presentation expectations into graduate course Biochemistry 6999

Summary of Changes

I) Under the heading Regulations concerning the degree of Master of Science, subsection Biochemistry, section 25.6. of the 2015-2016 calendar:

   i) Add to the second paragraph “the admission requirements…: a new second sentence:

   All students must enrol in Biochemistry 6999 (Seminars in Biochemistry and Food Science).

   ii) Delete the fifth, sixth, and seventh paragraphs “All graduate students.....’,” “A student completing...” and “Any deficiencies...”

   iii) Add to the Course list new courses Biochemistry 6000 Advanced Topics in Lipid and Lipoprotein Metabolism and Biochemistry 6999 Seminars in Biochemistry and Food Science. Renumber the Special Topics in Biochemistry list of numbers as 6001-6009.

II) Under the heading Regulations concerning the degree of Doctor of Philosophy, subsection Biochemistry, section 32.3. of the 2015-2016 calendar

   i) Add to clause 2. a new second sentence:

   All students must enrol in Biochemistry 6999 (Seminars in Biochemistry and Food Science)

   ii) delete the existing clauses 5 and 6 and renumber current clause 7 as clause 5.
iii) Add to the Course list new courses Biochemistry 6000 Advanced Topics in Lipid and Lipoprotein Metabolism and Biochemistry 6999 Seminars in Biochemistry and Food Science. Renumber the Special Topics in Biochemistry list of numbers as 6001-6009.

MARKED CHANGES

25.6 Biochemistry

25.6.1 Program of Study

The Degree of Master of Science is offered in Biochemistry or Food Science to full-time and part-time students.

The admission requirements for the graduate programs in Biochemistry and Food Science are as given under Regulations Governing Master of Science Degrees. All students must enrol in Biochemistry 6999 (Seminars in Biochemistry and Food Science). Depending on the background and/or area of specialization, a candidate's program may include additional courses taken for credit in Biochemistry, Food Science, or related subjects.

The program of a candidate for the M.Sc. Degree shall be the responsibility of the supervisory committee, composed of the Supervisor and at least two other faculty members recommended with the concurrence of the Supervisor by the Head of the Department or delegate.

It is the responsibility of the student to arrange regular meetings with his or her supervisory committee. A semi-annual report, prepared by the Supervisor and signed by all members of the supervisory committee, is required to be given to the Head of the Department or delegate.

All graduate students are expected to attend and participate in the Departmental seminars.

A student completing an M.Sc. Degree will be required to present a seminar on his/her research area. The seminar will normally take place during the last semester of the student's program.

Any deficiencies noted during the seminar should be carefully considered by the student and the supervisory committee prior to submission of the thesis for final examination.

25.6.2 Courses

A series of advanced courses in the areas outlined below will be offered. Normally only one course will be offered per semester.

- 6000 Advanced Topics in Lipid and Lipoprotein Metabolism
- 6001-6009 Special Topics in Biochemistry
- 6010-6019 Special Topics in Nutrition and Metabolism
- 6020-6029 Special Topics in Food Science
- 6400 Control of Intermediary Metabolism
• 6460 Structural Biochemistry
• 6520 Nutritional Biochemistry
• 6530 Food Biochemistry
• 6590 Cellular, Molecular and Developmental Biology (*credit restricted with Biology 6590 and Medicine 6590*)
• 6630 Marine Biochemistry
• 6680 Processing and Quality of Foods
• 6999 Seminars in Biochemistry and Food Science

32.3 Biochemistry

32.3.1 Program of Study

1. The Degree of Doctor of Philosophy is offered in Biochemistry or Food Science to full-time and part-time students.
2. The admission requirements for the graduate programs in Biochemistry and Food Science are as given under General Regulations. All students must enrol in Biochemistry 6999 (Seminars in Biochemistry and Food Science). Depending on the background and/or area of specialization, a candidate’s program may include additional courses taken for credit in Biochemistry, Food Science or related subjects.
3. The program of a candidate for the Ph.D. Degree shall be the responsibility of the supervisory committee, composed of the Supervisor and at least two other faculty members recommended with the concurrence of the Supervisor by the Head.
4. It is the responsibility of the student to arrange regular meetings with his or her graduate supervisory committee. A semi-annual report, prepared by the Supervisor and signed by all members of the supervisory committee, is required to be given to the Head of the Department or delegate.
5. All candidates for the Ph.D. Degree shall be required to attend and participate in Departmental seminars.
6. A candidate for the Ph.D. will be required to present a seminar on his/her research area within 18 months of starting the program and again immediately prior to the submission of thesis.
7. A candidate for the Ph.D. degree shall normally take the Comprehensive Examination within the first seven semesters of his or her program. The examination will have two components: the preparation of a grant proposal on a topic related to the student’s research specialization followed by an oral examination of the proposal. Failure of this examination will result in the termination of the candidate’s program.

32.3.2 Courses

A series of advanced courses in the areas outlined below will be offered. Normally only one course will be offered per semester.

• 6000 Advanced Topics in Lipid and Lipoprotein Metabolism
• 6099 6001-6009 Special Topics in Biochemistry
• 6010-6019 Special Topics in Nutrition and Metabolism
• 6020-6029 Special Topics in Food Science
• 6400 Control of Intermediary Metabolism
• 6460 Structural Biochemistry
• 6520 Nutritional Biochemistry
• 6530 Food Biochemistry
• 6590 Cellular, Molecular and Developmental Biology (*credit restricted with Biology 6590 and Medicine 6590*)
• 6630 Marine Biochemistry
• 6680 Processing and Quality of Foods
• 6999 Seminars in Biochemistry and Food Science
Request for Approval of a Graduate Course

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; ICC-2012 (Bruno Centre for Research and Innovation); St. John’s, NL A1C 5S7 Canada Fax: 709 864-4702 eMail: sgs@mun.ca

To: Dean, School of Graduate Studies
From: Faculty/School/Department/Program Biochemistry
Subject: ☑ Regular Course ☐ Special/Selected Topics Course
Course No.: Biochemistry 8000
Course Title: Lipid and Lipoprotein Metabolism

I. To be completed for all requests:

A. Course Type: ☑ Lecture course ☐ Lecture course with laboratory ☐ Laboratory course ☐ Undergraduate course
   ☐ 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. Credit hours for this course: three

E. Estimated number of contact hours per semester: 36

F. Course description (reading list required):
   See attached course description and reading list. This course was formerly a special topics course and we are now regularizing it.

G. Method of evaluation:

   Written          Percentage
   Oral

Class tests
Assignments 60  20
Other (specify) Participation 20
Final examination:
Total 100

1 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
2. double credit
3. work that is a faculty research product
4. overlap with existing courses

Recommended for offering in the ☑ Fall ☐ Winter ☐ Spring 2017

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

Approval of the head of the academic unit

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

Secretary, Faculty/School/Council

Date

Updated October 2011
BIOCHEMISTRY 6000

Advanced Topics in Lipid and Lipoprotein Metabolism

Proposal April 18, 2016

Course description: Lipid and Lipoprotein Metabolism is designed to provide current knowledge about advances and controversies in lipid and lipoprotein metabolism in the context of health and disease. Topics to be covered in the course include advanced knowledge about lipid and lipoprotein synthesis and regulation, reverse cholesterol transport, plus lipid and lipoprotein utilization to regulate cellular and physiological functions. The covered topics will be related to areas including reproductive biology, atherosclerosis, AIDS, Alzheimer's, and cancer.

Reading list: The primary source of literature toward assignments will be from journal articles indexed to PubMed that are available through the University library system in print or electronically. There is no required textbook for the course, however a number of reference books are available through the University library system, including:

Prerequisites:
Completion of all Hon. B.Sc. requirements for Biochemistry, Biology, or Nutrition; or completion of an undergraduate course in metabolism plus enrollment in an M.Sc. or Ph.D. program in biological or biomedical sciences.

Attendance:
Attendance at all classes is expected, including attendance to any make-up classes. Absence from a class without a timely-provided explanation will result in no marks assigned toward any participation or presentation for the day in question. In the event of a class cancellation due to unforeseen circumstances, a make-up class will be scheduled in order to complete all sections of the course.

Credit restriction:
Students can receive credit for only one of Biochemistry 4230 and Biochemistry 6000. These courses, while offered separately, will have overlapping content.
Instructor and general course content:
Dr. R. Brown (Office BT-3013, rbrown@mun.ca): *Metabolism of complex lipids and their biological roles; and lipoprotein metabolism in health and disease*

Instruction:
Section 1 (Weeks 1 to 4):
An overview of the topics outlined above will be given. Students will be assigned four papers – one per week. Each critique will be due by 11:59pm one week later. **Without exception, a critique not turned in when it is due will receive a mark of zero**. In addition, all students will be assigned a current research paper that students will present in a journal club (oral) format during Section 3. At the start of Section 1, students will be provided a list of topics to choose from for writing a research proposal; research proposal topics shall not be directly related to the student’s research.

Section 2 (Week 5, class 1):
A 10 page single-spaced draft of the assigned research proposal must be submitted by end of day; references and figures are not inclusive of the 10 pages. Students will be given feedback within two weeks. **Failure to meet this deadline will result in a 20% deduction per day**.

Section 3 (Week 5, class 2, to Week 9):
Papers assigned for oral presentations will be presented (as described under Section 1). Each presentation will be 15 minutes, where the student will highlight the findings and provide a critique. The presentation will be followed by a discussion that may last up to 15 minutes. Students are expected to read each paper and to electronically submit 3-4 thoughtful questions for each orally presented paper prior to the class of its presentation; these questions should be asked during the discussion of a paper.

The final research proposal must be submitted no later than 11:59pm on the Friday of week 9. **Failure to meet this deadline will result in a 20% deduction per day**. The final proposal from each student will be provided to all students. Students will prepare a 15 minute oral presentation for Section 4 of their research proposal that will be followed by a discussion that may last up to 15 minutes.

Section 4 (Weeks 10 - 13):
All students are expected to read the summaries for the research proposals. All students will present their research proposal to the class. All students are expected to participate in a discussion for each presentation. Students may ask questions related to the research proposal, in the general areas of basic biochemistry or nutrition.

Student evaluation:
Written Critiques: 5% per paper (x4) = 20%
Research Proposal: 1st draft: 15%; Final version: 25%
Oral Presentations of Papers: 5% per paper (x4) = 20%
Participation: 20% - 10% for written questions in Section 3; 5% for oral participation in Section 3; 5% for oral participation in Section 4.
Request for Approval of a Graduate Course

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 (Bruno Centre for Research and Innovation), St. John’s, NL A1C 5S7 Canada Fax: 709 864 4702 eMail: sgs@mun.ca

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

Course No.: BIOL 6999

Course Title: Seminars in Biochemistry and Food Science

I. To be completed for all requests:

A. Course Type:

☑ Lecture course
☑ Laboratory course
☑ Directed readings
☐ Lecture course with laboratory
☐ Undergraduate course
☑ Other (please specify)
☐ Seminar course

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. Credit hours for this course: 0

E. Estimated number of contact hours per semester: 12

F. Course description (reading list required):

This is a seminar course, in which a variety of topics related to biochemical sciences and food sciences will be presented. Presentations will be given by faculty, students, faculty, and visiting guest speakers.

Reading list: not applicable; students will receive presentations which include unpublished work.

G. Method of evaluation:

Written Percentage Oral

Class tests
Assignments 60% 40%

Other (specify):
Seminar course
Final examination:

Total 60% 40%

1 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:

1. duplication of thesis work  ________________________
2. double credit  ________________________
3. work that is a faculty research product  ________________________
4. overlap with existing courses  ________________________

Recommended for offering in the  ☑ Fall  ☑ Winter  ☐ Spring  2016/17

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  ____________________________________________________________

Date  April 15, 2016

Approval of the head of the academic unit  ___________________________________________

Date  5/3/2016

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

Secretary, Faculty/School/Council  ________________________________________________

Date  ________________________________________________

Updated October 2011
BIOCHEMISTRY 6999

Seminars in Biochemistry and Food Science

Course description:

This is a seminar course, in which a variety of topics related to biochemical sciences and food sciences will be presented by faculty, students, and visiting guest speakers. Students will both attend and prepare written reports on seminars attended, and will also present a seminar on their own research questions.

Reading list:

There are no assigned readings in this course.

Prerequisites:

None.

Instruction:

Departmental seminars will be presented by faculty members, graduate students, and by visiting guest speakers. Seminars will be held in the Fall and Winter semesters for 50 minutes each week; normally, there are approximately 10 seminars scheduled in each semester. All students will be advised by the Course Instructor of the number and schedule of seminars prior to the first day of classes in a semester, as well as the format and requirements for each written submission.

The course will consist of two components: preparation of written reports on a minimum number of seminars; and, presentation of a seminar by the student.

(a) Seminar reports

All students will be required to submit a written report on the topic of each seminar attended at the end of the semester. These reports should be no longer than a half-page (minimum 3 sentences). These reports will be reviewed and evaluated by each student’s Supervisor and by the Course Instructor and awarded a mark of pass (P) or fail (F). Students will be given feedback on their writing skills. All students will be encouraged to ask questions following the seminar presentation.

Students must submit written reports for at least 75% of the seminars presented in a given semester. If the minimum number of reports is not provided, a student will be assigned to write a 5 page review of one or more missed seminar topics until the minimum number of reports is met.
Students will be permitted to submit a written report on a seminar outside of the Department which they have attended as long as the seminar is related to the student's research area. Students will be permitted to submit a written report based on presentations they have heard at a conference they have attended in that semester as long as the conference is related to their research area. However, in any semester, at least 75% of the reports submitted must be from seminars presented to the Department of Biochemistry.

(b) Seminar presentation

All M.Sc. and Ph.D. students in the Department are required to present a seminar as part of their programs.

M.Sc. students will normally present a seminar in the second year of their program. Ph.D. students will be required to present twice during the course. The first time will normally be in the first year of their program; the second will normally be one year prior to thesis submission. At the start of each semester, the Course Instructor will announce the seminar date for those who are due to present.

The seminar presentation should highlight the student's research, and is to include sufficient background, methodology, current and expected results, discussion of importance, and, where appropriate, an indication of future directions for the research. The seminar is to be 40-45 minutes in length, followed by 10 minutes for questions from those present. Feedback will be provided to the student from both students and faculty. The overall presentation will be evaluated by at least three faculty members in attendance who will determine whether or not a seminar is satisfactory. If the seminar is found to be satisfactory, a pass mark will be awarded. If the seminar is found to be unsatisfactory, the student will be required to present a revised seminar at a later date. If the revised seminar is found to be unsatisfactory then a FAL grade in the course will be awarded.

Student evaluation:

Students must obtain a pass mark on their written reports, and — in semesters in which they present a seminar — a pass mark on the seminar in order to obtain an overall PAS grade in the course.

Attendance:

The course is compulsory for all students enrolled in a Biochemistry or Food Science graduate program. Students will enroll four times during the two year duration of the M.Sc. program, and eight times during the four year duration of the Ph.D. program, or until a thesis is submitted for examination — (whichever occurs first).

Instructor and general course content:

Dr. R. Brown (Office BT-3013, rbrown@mun.ca): Seminars related to biochemical sciences and food sciences.
Hi Gail,

I think this one is also ready to for the approval of the Faculty Council.

It received five votes in favour (Carolyn, Todd, Stephanie, Brent and myself), one abstention (Ron). Also, Len, Kareem, Kapil and Kurt commented on the original proposal but did not vote on the reviewed submission.

-j

------- Forwarded Message -------
Subject: Re: Proposed Psyc-6670 Course
Date: Wed, 31 Aug 2016 10:33:39 -0230
From: JC Loredo-Osti <jloredoosti@mun.ca>
To: Kapil Tahan <ktahan@mun.ca>, Christina Bottaro <cbottaro@mun.ca>, JC Loredo-Osti <jloredoosti@mun.ca>, Gail Kenny <gkenny@mun.ca>, Len Zedel <zelden@mun.ca>, Ron Haynes <rhaynes@mun.ca>, Ratana Chuenpagdee <ratanac@mun.ca>, Minglun Gong <gong@mun.ca>, Kareem Azmy <kazmy@mun.ca>, Rob Bertolo <rbertolo@mun.ca>, Hari Kunduri <hkkunduri@mun.ca>, Wareham, Todd <harold@mun.ca>, A. Kurt Gamperl <kgamperl@mun.ca>, Stephanie H. Curnoe <curnoe@mun.ca>, Cyr Couturier <Cyr.Couturier@mi.mun.ca>, Carolyn Walsh <cwalsh@play.psych.mun.ca>, Joseph S Wroblewski <jwroblew@mun.ca>

Dear all,

attached is a revised proposal that addresses the concerns expressed here.

-j
Request for Approval of a Graduate Course

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; ITIC-2012 (Bruneau Centre for Research and Innovation); St. John's, NL A1C 5S7 Canada Fax: 709.864.4702 eMail: sgs@mun.ca

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

Course No.: Psyc 6670
Course Title: Interprofessional Education

I. To be completed for all requests:

A. Course Type: [ ] Lecture course
   [ ] Laboratory course
   [ ] Directed readings
   [ ] Lecture course with laboratory
   [ ] Undergraduate course
   [o] Other (please specify) Multiple small/large group activities

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

C. Will this course require new funding (including Payment of instructor, labs, equipment, etc.)? [ ] Yes [o] No

If yes, please specify:

D. Credit hours for this course: 3 over 6 semesters

E. Estimated number of contact hours per semester: 40 over 6 semesters

F. Course description (reading list required):
   See attached

G. Method of evaluation: Written Oral

Class tests
Assignments
Other (specify): Pass/Fail
   Multiple small/large group activities
Final examination:
Total

1 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
   
2. double credit
   
3. work that is a faculty research product
   
4. overlap with existing courses
   
Recommended for offering in the [ ] Fall [ ] Winter [ ] Spring 20____

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

[Signature]  
Course instructor

[Signature]  
Date June 24/16

Approval of the head of the academic unit

[Signature]  
Date June 28/16

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

[Signature]  
Secretary, Faculty/School/Council

Date

Updated October 2011
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

2. double credit

3. work that is a faculty research product

4. overlap with existing courses

Recommended for offering in the ☐ Fall ☐ Winter ☐ Spring 20___

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

[Signature]
Course instructor

[Signature]
Approval of the head of the academic unit

June 24/16
Date

June 28/16
Date

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

[Signature]
Secretary, Faculty/School/Council

Date

Updated October 2011
Psyc 6670 Interprofessional Education
Response to questions from Faculty of Science

1. Do we offer any other "courses" that span multiple semesters? I'm wondering why this shouldn't be parsed into sub-courses.
   Response: According to the Registrars Office, there are other courses both credit and non-credit that are required for students to register for over multiple years. We did consider parsing the course into three separate 1 credit courses but given the way the material for the course is divided (i.e. The IPST course material is over two years) and it doesn't make sense to divide it between the two years.

2. I am also wondering why the course needs to be offered over 3 years. If new students are entering the program every year, all of the IPE activities will have to be offered every year. Would it not enhance the learning experience of the students to have all the IPE activities in 1 year so that they can better relate what is learned in the first IPE sessions with the later ones...given that there are two years between IPE sessions/modules I would think a lot of this knowledge, and the ability of the students to integrate this knowledge, would be lost??
   Also, offering it in one year would possibly allow students in the M.Sc. in Experimental Psychology (i.e., Clinical Psychology) to also take this course (although I am not that familiar with the curriculum etc.). Can we please receive a justification as to why the course has to be offered over 3 years?
   Response: All IPE activities are offered every year as new students enter the Clinical Psychology PsyD but these activities are also offered for all medical, nursing, social work and pharmacy students and the activities have to be offered to meet the needs of all of these students so each offering accommodates approximately 250 students and the scheduling of these activities is extremely complicated given the tightly packed curricula of all of these health professional training programs. It would not be possible for logistical reasons to offer all of the activities into one year.
   In addition from a pedagogical perspective, it is more valuable for the Clinical Psychology students to have the IPE spread out over the three year program because the concepts covered in these activities are related to the complex process of working as part of an interprofessional health care team and it takes time for students to appreciate how complex these interactions are. Also as the students learn about these complexities, they need to reflect on how their personal interaction styles (e.g. conflict management style, dominant communication style) will impact their ability to work effectively in a team and then experience working in a team while they can discuss their experiences with fellow health care professional students and a trained facilitator in their small groups. Finally the activities themselves are levelled based on IPE knowledge and on professional development and maturity – so the modules would not be appropriate for first year students and the first year of IPST would be too basic for a second or third year student.
   IPE is designed for students who will be practicing health professionals and would not be appropriate for experimental students- even those in the experimental clinical program which is not designed to graduate practicing psychologists.
3. In assessment, what does it mean to say: "Participating academic units may have additional assessment requirements ..."?

**Response:** Because the IPE activities are offered to students from 7 different professional training programs and in most programs these IPE activities are associated with particular courses, the instructor for that course may elect to assess the students participation in the IPE in other ways besides the ways which are outlined in the revised Grad Studies Form attachment- for example, the students may be expected to write an additional short paper on the impact of IPE experiences on the their perception of how their profession works in a team setting in order to get the marks assigned for participating in the IPE.
Psychology 6670 Interprofessional Education

Course Description
Psychology 6670 Interprofessional Education introduces students to key concepts and skills related to collaborative practice in health and social care settings. Students will complete 11 interprofessional education (IPE) activities over three years (first year: 4; Second year: 5; Third year: 2) with the first eight sessions focused on the process associated with collaborative practice skill development (Interprofessional Skills Training - IPST) and the last three sessions structured to be increasingly complex case-based interprofessional sessions. Students will be learning with, from, and about other students from medicine, nursing, pharmacy, human kinetics and recreation, police studies and social work throughout all IPE sessions. The IPE sessions are organized sequentially to build on knowledge and skills as follows:

Year 1 Fall Term – IPST - Team Functioning - 1 and 2 (7 hrs) Appendix A
Winter Term – IPST – Interprofessional Communication - 1 and 2 (7 hrs) Appendix B

Year 2 Fall Term – IPST – Interprofessional Conflict - 1 and 2 (7 hrs) Appendix C
Winter Term – IPST- Transition to Practice: When Teams Fail - 1 and 2 (7 hrs) Appendix D
and IPE Case-Based Module - Health and Well-being of Children (4.5 hrs) Appendix E

Year 3 Fall Term–IPE Case-Based Module- Mental Health: Geriatric Depression (3.5 hrs) Appendix F
Winter Term – IPE Case-Based Module - HIV (4 hrs) Appendix G

Please see attached IPE activity syllabi for details related to each activity.

Course Outline
Evaluation
Students are required to register for this single-source high-impact course for fall and winter terms in the first, second and third year of their PsyD program. A grade of No Credit (NC) for each of the 5 terms leading up to the final term of registration in which a grade of Pass or Fail will be awarded.

Course Readings
Please see the attached syllabi for detailed information on the materials included in each of the IPE activities.

Library Holdings and/or Other Resources
None beyond those presently available

Instructor(s)
The instructor will be responsible for a single-source credit hour course spread over three years and will provide psychology specific input to the curriculum development teams for all IPE activities; keep students informed about IPE activities, ensuring their availability; approve leave from the activity and submit the No Credit (NC) and Pass/Fail grade based upon feedback from the Centre for Collaborative Health Professional Education (CCHPE).
APPENDIX A
IPST Topic 1
Team Functioning (Sessions 1 and 2)
Interprofessional Education: Skills Training (IPST)

The Centre for Collaborative Health Professional Education (CCHPE) is offering a series of training activities designed to enhance student skills in collaboration, interprofessional communication, and conflict management. For the development and delivery of this initiative, CCHPE has partnered with the Faculty of Medicine; Schools of Nursing, Pharmacy, Human Kinetics/Recreation, and Social Work; and the Department of Psychology.

A certificate will be issued to students who complete the requirements for Interprofessional Education: Skills Training.

IPST Topic 1: Team Functioning
Fall

Interprofessional Curriculum Team
- Jeannette Byrne, BSc(PT), MSc, PhD, School of Human Kinetics and Recreation
- Amy Clarke, PharmD, School of Pharmacy
- Renee Crossman, BN, RN, MHS, School of Nursing
- Heather Hair, PhD, School of Social Work
- Olga Heath, PhD, Counselling Centre and Faculty of Medicine
- Katherine Stringer, MD, Faculty of Medicine
- Beth Whelan, PhD, Department of Psychology

Support Team
- Brenda Kirby, Coordinator, Centre for Collaborative Health Professional Education
- Adam Reid, Research Coordinator, Centre for Collaborative Health Professional Education

Participating Students
- Department of Psychology (PsyD Program)
- Faculty of Medicine
- School of Human Kinetics and Recreation
- School of Nursing
- School of Pharmacy
- School of Social Work
- Western Regional School of Nursing

Date/Time
- Session 1:
- Project Planning Session:
- Session 2:
Online support will be available through Desire2Learn (D2L) effective.
**Learning Objectives**
This interprofessional training will provide students with a greater understanding of the dynamics of team functioning and the roles of professionals who collaborate for safe, culturally sensitive, and effective patient care.

1. Explain the roles of the various professional groups and other stakeholders on the healthcare team.
2. Analyze and explain team function and dynamics with reference to the student’s own role and contributions as a team member.

**Learning Activities**
Learning activities include a case study assignment, team learning activities, a team project, and reflection journal. Resources are posted on Desire2Learn (D2L) to assist students with the case study assignment.

**Schedule for learning activities:**

<table>
<thead>
<tr>
<th>September</th>
<th>Preparation for Team Learning:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Study Assignment. Students will review the case study (available on the D2L course site <em>IPST Team Functioning 2015</em>), reflect on and post a response to the case study questions (deadline to post:).</td>
<td></td>
</tr>
<tr>
<td>Team Roles Test. Students will complete the Team Roles Test (link to test available on D2L), record their results on the form provided on D2L, and be prepared to discuss their results during Session 1.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>September 1:00-4:00 pm</th>
<th>Session 1: Team Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome and introductions</td>
<td></td>
</tr>
<tr>
<td>Discussion – Self-assessment of Team Roles</td>
<td></td>
</tr>
<tr>
<td>Case study discussion</td>
<td></td>
</tr>
<tr>
<td>Professional consultations</td>
<td></td>
</tr>
<tr>
<td>Project planning</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>September – November</th>
<th>Team Project. Student teams will prepare and submit their team project (deadline to post on D2L is)</th>
</tr>
</thead>
<tbody>
<tr>
<td>For your convenience, a team project planning meeting is scheduled for 1:00-2:00 pm on. See D2L for a list of assigned meeting rooms. If this is your lunch break, we recommend that you bring your lunch. While this meeting is optional, we strongly encourage student teams to use this time as students generally find it difficult to find a common time to meet.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>November 1:00-4:00 pm</th>
<th>Team Presentations. Schedule/location for team presentations will be posted on D2L on</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>November</th>
<th>Reflection Journal. Students will post a personal reflection. Reflection questions are available on the D2L course site <em>IPST Team Functioning 2015</em> (deadline to post:).</th>
</tr>
</thead>
</table>

Online Course Information and Instructions – available:
An online course site has been established through D2L to support this interprofessional training. To access the D2L course **IPST Team Functioning 201** use the website for Centre for Innovation in Teaching and Learning (CITL), https://online.mun.ca/. Follow the instructions on the login page to access your course.

**Desire2Learn Tutorial:** For students unfamiliar with Desire2Learn, there is an online tutorial available at http://www.distance.mun.ca/current/d2l/

The D2L course site provides the following information:
- Information related to IPE, IPST, and collaborative practice
- An overview of this (Team Functioning) IPST training
- Materials required to prepare for team learning (case study assignment, team roles test, resources)
- Resources: Information and links related to team functioning and professional roles
- List of interprofessional student teams, meeting room locations, facilitators
- Description of team project requirements
- Personal reflection questions
- Assessment rubrics

**IPST Certificate**
A certificate of completion will be issued to students who complete the following components of this training within specified deadlines:
1. Active participation for both IPST sessions, including preparation for session 1
2. Submission of team project
3. Presentation of team project
4. Submission of personal reflection

More information and assessment rubrics for these activities are available on D2L.

**Assessment**
Students will be assessed by their team facilitator using the Rubrics attached below. Participating academic units may have additional assessment requirements related to the course affiliated with this learning activity. Please refer to your program’s assessment criteria to determine specific requirements and expectations.

**Contact information**
Questions about this training and student participation can be directed to:
Brenda Kirby, Coordinator
Centre for Collaborative Health Professional Education
777-8809; bkirby@mun.ca
Team Functioning Assessment Rubrics
**Title:** Student Written Reflection Rubric: IPST Team Functioning

**Task:** IPST Team Functioning students must submit a short reflection assignment to demonstrate understanding of the assigned materials.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>0: Unacceptable</th>
<th>1: Marginal</th>
<th>2: Developing</th>
<th>3: Competent</th>
<th>4: Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>No reflection assignment was submitted.</td>
<td>The submission demonstrates no learning related to the assigned materials and concepts.</td>
<td>The submission demonstrates superficial learning related to the assigned materials and concepts.</td>
<td>The submission demonstrates an acceptable level of learning related to the assigned materials and concepts.</td>
<td>The submission demonstrates a high level of personalized learning related to the assigned materials and concepts.</td>
</tr>
<tr>
<td>Reflection</td>
<td>No reflection assignment was submitted.</td>
<td>The submission contains weak reflection with little detail, and demonstrates a superficial level of understanding or analysis of the personal impact of the educational event.</td>
<td>The submission contains an acceptable reflection with an adequate level of detail demonstrating a satisfactory level of understanding, questioning or analysis of the personal impact of the educational event.</td>
<td>The submission contains an exceptional reflection with rich and thoughtful detail demonstrating outstanding level of understanding, questioning and analysis of the personal impact of the educational event.</td>
<td></td>
</tr>
<tr>
<td>Writing Quality</td>
<td>No reflection assignment was submitted.</td>
<td>The submission is poorly organized and/or contained numerous grammatical and/or spelling errors.</td>
<td>The submission is incomplete and/or unclear but is reasonably well organized with some grammatical and/or spelling errors.</td>
<td>The submission contains an acceptable level of organization, is clear and covers most of the important concepts, with few minor grammatical and/or spelling errors.</td>
<td>The submission is very well organized, comprehensive and clear with no grammatical or spelling errors.</td>
</tr>
</tbody>
</table>
Title: Student Group Active Participation Rubric: IPST Team Functioning Session 1

Task: Students are expected to actively participate in the small group activity component of session 1 of IPST Team Functioning.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Contributions</td>
<td>0: Unacceptable</td>
</tr>
<tr>
<td></td>
<td>The student did not attend the session and did not obtain an excused absence</td>
</tr>
<tr>
<td></td>
<td>1: Marginal</td>
</tr>
<tr>
<td></td>
<td>The student made no relevant contributions to the discussion</td>
</tr>
<tr>
<td></td>
<td>2: Developing</td>
</tr>
<tr>
<td></td>
<td>The student made occasional contributions, which were generally irrelevant</td>
</tr>
<tr>
<td></td>
<td>3: Competent</td>
</tr>
<tr>
<td></td>
<td>The student frequently contributed relevant, meaningful contributions to the group process</td>
</tr>
<tr>
<td></td>
<td>4: Exemplary</td>
</tr>
<tr>
<td></td>
<td>The student frequently contributed relevant, constructive comments to the discussion and encouraged others to do so as well</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>0: Unacceptable</td>
</tr>
<tr>
<td></td>
<td>The student did not attend the session and did not obtain an excused absence</td>
</tr>
<tr>
<td></td>
<td>1: Marginal</td>
</tr>
<tr>
<td></td>
<td>The student did not display active listening, appeared uninterested, was checking mobile devices, or showed little respect for others' perspectives</td>
</tr>
<tr>
<td></td>
<td>2: Developing</td>
</tr>
<tr>
<td></td>
<td>The student showed limited evidence of active listening or respect for others' perspectives</td>
</tr>
<tr>
<td></td>
<td>3: Competent</td>
</tr>
<tr>
<td></td>
<td>The student listened actively when others were speaking, made eye contact, and showed respect for others' perspectives</td>
</tr>
<tr>
<td></td>
<td>4: Exemplary</td>
</tr>
<tr>
<td></td>
<td>The student was consistently engaged and attentive to others, made eye contact, and supported and respected team members' perspectives</td>
</tr>
</tbody>
</table>

* Students granted excused absences are required to submit a remedial written assignment to receive active participation credit.
Title: Student Team Presentation Rubric: IPST Team Functioning Session 2

Task: Student teams must develop a project (e.g. paper [(max 5 double-spaced pages), PowerPoint presentation, creative production etc.) that could be presented to fellow students in 10 minutes or less which demonstrates an appreciation for the roles of the team members involved and the importance of professional and cultural respect when developing a wellness plan.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>0: Poor</th>
<th>1: Marginal</th>
<th>2: Adequate</th>
<th>3: Good</th>
<th>4: Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interprofessional Team Member Representation</td>
<td>Student team did not describe or identify the professionals present in the interprofessional team.</td>
<td>Student team presentation had key interprofessional team members noticeably absent or described with insufficient detail.</td>
<td>Student team presentation contained most key interprofessional team members and their roles were described in adequate detail.</td>
<td>Student team presentation featured key interprofessional team members and their roles were described in good detail.</td>
<td>Student team presentation featured an inclusive and justified interprofessional team and their roles were completely described in rich detail.</td>
</tr>
<tr>
<td>Demonstration of Professional and Cultural Respect</td>
<td>Student team presentation did not include any demonstration of respect for professional or cultural background.</td>
<td>Student team presentation featured little demonstration of respect in general and focused on either cultural or professional respect but did not incorporate both.</td>
<td>Student team presentation featured adequate demonstration of professional and cultural respect and achieved some balance between professional and cultural aspects.</td>
<td>Student team presentation included good demonstration of both professional and cultural respect.</td>
<td>Student team presentation included a clear, well-developed and integrated demonstration of both professional and cultural respect.</td>
</tr>
<tr>
<td>Evidence of Student Teamwork</td>
<td>No evidence of shared workload / responsibility in the team presentation.</td>
<td>One or two student team members did all communication, appeared to do much more work than others.</td>
<td>Student presentation had adequate but uneven contribution from all members.</td>
<td>Student presentation had consistent contributions from all members.</td>
<td>Student presentation had consistent and substantive contributions from all members.</td>
</tr>
</tbody>
</table>
APPENDIX B

IPST Topic 2

Interprofessional Communication (Sessions 1 and 2)
Interprofessional Skills Training (IPST)

Topic 2: Interprofessional Communication
Winter

The Centre for Collaborative Health Professional Education (CCHPE) is offering a series of training sessions designed to enhance student skills in collaboration, interprofessional communication, and conflict management. For the development and delivery of this initiative, CCHPE has partnered with the Faculty of Medicine; Schools of Nursing, Pharmacy, Social Work and Human Kinetics and Recreation; and the Department of Psychology.

Interprofessional Curriculum Team
- Tanis Adey, MD, FRCPC, Faculty of Medicine
- Mary Bursey, RN, BN, MSc(N), School of Nursing
- Jeannette Byrne, BSc(PT), MSc, PhD, School of Human Kinetics and Recreation
- Sandie Cook, RPsych, PhD, Child and Adolescent Mental Health and Addictions
- Terri Genge, PharmD, School of Pharmacy
- Peggy Hancock, BN, Western Regional School of Nursing
- Olga Heath, PhD, Counselling Centre and Faculty of Medicine
- Greg Radu, MD, FRCPC, Faculty of Medicine

Support Team
- Brenda Kirby, Coordinator, Centre for Collaborative Health Professional Education
- Adam Reid, Research Coordinator, Centre for Collaborative Health Professional Education

Participating Students
- Faculty of Medicine
- Department of Psychology, Faculty of Science (PsyD Program)
- School of Human Kinetics and Recreation
- School of Nursing
- School of Pharmacy
- School of Social Work
- Western Regional School of Nursing

Date/Time
- Session 1: 1:00-4:00 pm
- Project Planning Session: 1:00-2:00 pm
- Session 2: 1:00-4:00 pm

Online support will be available through Desire2Learn (D2L) effective.
Rationale
Communication plays a vital role in the success of every team involved in health and social care. Effective communication among health and social care professionals is fundamental for the provision of safe healthcare to individuals, while ineffective communication can contribute to errors and inadvertent patient harm.

Overarching Goal
Communicate effectively with team members to provide care for individuals, groups, communities, and populations.

Learning Objectives
1. Develop an understanding of and respect the importance of interprofessional communication.
2. Demonstrate the principles underlying effective communication including: attitudes of respect, upholding others’ dignity, power equity, inclusivity, and social justice principles.
3. Explain how the following factors impact the interprofessional communication process:
   - personal communication style and values,
   - biases,
   - professional limitations, and
   - verbal and non-verbal communication blockers.

Learning Activities
Learning activities will include team learning activities, a team project (case study assignment and presentation), reflection, and a plenary presentation. Resources are available on Desire2Learn (D2L) to assist students with the case study assignment. For a list of student teams and meeting rooms, see the D2L course site IPE Skills Training (IP Communication) 2015 which will be available February 27th.

Schedule for learning activities:

<table>
<thead>
<tr>
<th>February – March</th>
<th>Preparation for Team Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>You are <strong>required</strong> to complete a Communication Styles Questionnaire (available on D2L) and be prepared to discuss the results of this measure and what your results may mean about how you communicate as part of a team.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>March 1:00-4:00 pm</th>
<th>1:00-2:00: Team Learning (Various assigned meeting rooms; see D2L for room assignments)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Discussion of personal communication styles (based on your results from Communication Styles Questionnaire)</td>
</tr>
<tr>
<td></td>
<td>- Communication exercise</td>
</tr>
<tr>
<td></td>
<td>- Attentive listening</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2:00-3:00: Plenary Session (Auditorium, Health Sciences Centre)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Patient/Family Presentation. A patient representative will share her family’s story describing how a health care team failed to provide quality patient care due to errors related to communication and collaboration, the resulting outcome, and how it affected the patient and family. The presentation will be followed by a Q/A session.</td>
</tr>
</tbody>
</table>
### Team Project (Various assigned meeting rooms; see D2L for room assignments)

- Review and discussion of case study
- Planning the case presentation

Student teams will review an assigned case study, identify interprofessional communication challenges, and develop a role play demonstrating their understanding of the challenges, how they would address those challenges, and expected outcomes.

The student project (role play) must be submitted to CCHPE using the D2L dropbox tool. (deadline to post: )

<table>
<thead>
<tr>
<th>March 1:00-2:00 pm</th>
<th>Planning Session for Team Project Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student teams will meet to continue their planning for the case presentation. Meeting rooms will be assigned for each student team and posted on D2L.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>March 1:00-4:00 pm</th>
<th>Team Project Presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Each team will present their assigned case study. A panel of interprofessional faculty will provide feedback on each presentation.</td>
</tr>
<tr>
<td></td>
<td>A schedule/location for team presentations will be posted on D2L.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>March, 2016</th>
<th>Reflection Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students will post an individual reflection. Reflection questions and instructions for submission are available on the D2L course site <em>IPE Skills Training (IP Communication) 2016</em> (deadline to post: March).</td>
</tr>
</tbody>
</table>

**Online Course Information and Instructions – available:**

An online course site has been established through D2L to support this interprofessional training session. To access the D2L course *IPE Skills Training (IP Communication) 201"* use the web site for Centre for Innovation in Teaching and Learning (CITL), [https://online.mun.ca/](https://online.mun.ca/). Follow the instructions on the login page to access your course.

The D2L course site provides the following information:

- Overview of this IP training
- Information and links related to interprofessional communication, stigma and vulnerable patient populations
- Team Project
  - Case Study Assignment
- Instructions for team project
  - List of student teams, meeting room locations, facilitators
  - Reflection questions
  - Assessment rubrics

Certificate
A certificate will be issued to students who complete the following components of this training:

1. Active participation for both IPST sessions
   • Includes preparation for session 1 and actively participating in all learning activities
2. Team presentation for assigned case study
3. Submission of reflection

More information and assessment rubrics for these activities are available on D2L.

Assessment
Students will be assessed by their team facilitator using the Rubrics attached below. Participating academic units may have additional assessment requirements related to the course affiliated with IPST training. Please refer to your program's assessment criteria to determine specific requirements and expectations.

Contact information
Questions about this training and student participation can be directed to:
Brenda Kirby, Coordinator
Centre for Collaborative Health Professional Education
864-4926; bkirby@mun.ca
Interprofessional Communication Assessment Rubrics
**Title:** Student Written Reflection Rubric: *IPST Communication*

**Task:** IPST students must submit a short reflection assignment to demonstrate understanding of the assigned materials.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>0: Unacceptable</th>
<th>1: Marginal</th>
<th>2: Developing</th>
<th>3: Competent</th>
<th>4: Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>No reflection assignment was submitted.</td>
<td>The submission demonstrates no learning related to the assigned materials and concepts – very basic description of activities, no learning objectives discussed.</td>
<td>The submission demonstrates superficial learning related to the assigned materials and concepts – at least one learning objective is identified but not elaborated upon.</td>
<td>The submission demonstrates an acceptable level of learning related to the assigned materials and concepts – at least two learning objectives are identified and discussed.</td>
<td>The submission demonstrates a high level of personalized learning related to the assigned materials and concepts – at least two learning objectives are identified and discussed in depth. The discussion should include an emphasis on how the learning applied in the context of the group.</td>
</tr>
<tr>
<td>Reflection</td>
<td>No reflection assignment was submitted.</td>
<td>The submission contains very little evidence of reflection on the educational event – just a description of what took place.</td>
<td>The submission contains weak reflection, and demonstrates a superficial level of understanding or analysis of the personal impact of the educational event. Opinions are stated but not elaborated upon.</td>
<td>The submission contains an acceptable reflection demonstrating a satisfactory level of understanding, questioning and analysis of the personal impact of the educational event. Opinions must be elaborated upon.</td>
<td>The submission contains an exceptional reflection with rich and thoughtful detail demonstrating outstanding level of understanding, questioning and analysis of the personal impact of the educational event. Should include a discussion of how the learning applies to the bigger-picture (i.e. outside the training context).</td>
</tr>
<tr>
<td>Writing Quality</td>
<td>No reflection assignment was submitted.</td>
<td>The submission is poorly organized and contained numerous grammatical and/or spelling errors.</td>
<td>The submission is unclear but is reasonably well organized with some grammatical and/or spelling errors.</td>
<td>The submission contains an acceptable level of organization, with few minor grammatical and/or spelling errors.</td>
<td>The submission is very well organized and clear with no grammatical or spelling errors.</td>
</tr>
</tbody>
</table>
Title: Student Group Active Participation Rubric – IPST Communication 1

Task: Students are expected to actively participate in the small group activity component of session 1 of IPST Communication.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>0: Unacceptable</th>
<th>1: Marginal</th>
<th>2: Developing</th>
<th>3: Competent</th>
<th>4: Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Contributions</td>
<td>The student did not attend the session and did not obtain an excused absence*</td>
<td>The student made no relevant contributions to the discussion</td>
<td>The student made occasional contributions, which were generally relevant</td>
<td>The student regularly made relevant, meaningful contributions to the group process</td>
<td>The student frequently contributed relevant, constructive comments to the discussion and encouraged others to do so as well</td>
</tr>
<tr>
<td>Listening</td>
<td>The student did not attend the session and did not obtain an excused absence*</td>
<td>The student did not display active listening, appeared uninterested, was checking mobile devices, or showed little respect for others’ perspectives</td>
<td>The student showed limited evidence of active listening or respect for others’ perspectives</td>
<td>The student listened actively when others were speaking, made eye contact, and showed respect for others’ perspectives</td>
<td>The student was consistently engaged and attentive to others, made eye contact, and supported and respected team members’ perspectives</td>
</tr>
</tbody>
</table>

* Students approved for an excused absence by the administration of their academic unit or course faculty lead are required to submit a remedial written assignment to receive active participation credit.
**Title:** Student Team Presentation Rubric: IPST Interprofessional Communication 2

**Task:** Review assigned case and communication challenge, identify who would be on the team and discuss the rationale for each team member, discuss how the team will handle the communication challenge, and role play the team discussion demonstrating a) understanding of the communication challenge, b) who would be involved and their role in addressing the issue, and c) the team’s plan to resolve the issue.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>0: Poor</th>
<th>1: Marginal</th>
<th>2: Adequate</th>
<th>3: Good</th>
<th>4: Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation of Communication Challenge</strong></td>
<td>Student team provided no summary of the communication challenge in the case</td>
<td>Student team role play included incomplete or partial description of the communication challenge in the case</td>
<td>Student team role play included a basic description of the communication challenge in the case</td>
<td>Student team role play included a detailed description of the communication challenge in the case</td>
<td>Student team role play included a detailed, concise and impactful outline of the communication challenge in the case</td>
</tr>
<tr>
<td><strong>Interprofessional Team Member Representation</strong></td>
<td>Student team did not describe or identify the professionals present in the interprofessional team</td>
<td>Student team role play had key interprofessional team members noticeably absent or described with insufficient detail</td>
<td>Student team role play contained most key interprofessional team members whose roles were described in some detail</td>
<td>Student team role play featured key interprofessional team members whose roles were described with appropriate detail</td>
<td>Student team role play featured an inclusive and justified interprofessional team with roles described with great detail</td>
</tr>
<tr>
<td><strong>Communication Challenge Resolution</strong></td>
<td>Student team role play did not present a resolution to the communication challenge</td>
<td>Student team proposed a potential resolution to the communication challenge with insufficient detail</td>
<td>Student team proposed a resolution to the communication challenge with some detail but no discussion of implications for outcomes</td>
<td>Student team proposed a detailed, reasonable and potentially effective resolution to the communication challenge with limited discussion of implications for outcomes</td>
<td>Student team proposed a feasible and creative resolution to the communication challenge with clear and detailed discussion of implications for outcomes</td>
</tr>
<tr>
<td><strong>Evidence of student teamwork</strong></td>
<td>No evidence of shared workload / responsibility in the team presentation</td>
<td>One or two student team members did all communicating, appeared to do much more work than others</td>
<td>Student presentation had uneven contribution from all members</td>
<td>Student presentation had consistent contributions from all members</td>
<td>Student presentation had consistent and substantive contributions from all members</td>
</tr>
</tbody>
</table>
APPENDIX C
IPST Topic 3
Interprofessional Conflict (Sessions 1 and 2)
Interprofessional Education: Skills Training (IPST)
Topic 3: Interprofessional Conflict Management
Fall

Interprofessional Education: Skills Training (IPST)

The Centre for Collaborative Health Professional Education (CCHPE) is offering a series of training activities designed to enhance student skills in collaboration, interprofessional communication, and conflict management. For the development and delivery of this initiative, CCHPE has partnered with the Faculty of Medicine; Schools of Nursing, Pharmacy, Human Kinetics/Recreation, and Social Work; and the Department of Psychology.

A certificate will be issued to students who complete the requirements for Interprofessional Education: Skills Training.

Interprofessional Curriculum Team
- Erin Davis, PharmD, School of Pharmacy
- Jonathan Greenland, MD, FRCP(C), Faculty of Medicine
- Heather Hair, PhD, School of Social Work
- Olga Heath, PhD, Counselling Centre and Faculty of Medicine
- Pam Moores, BN, MN, Western Regional School of Nursing
- Caroline Porr, PhD, School of Nursing
- Nicole Snow, BN, MN, PhD (c), School of Nursing
- Anne-Marie Sullivan, PhD, School of Human Kinetics and Recreation

Support Team
- Brenda Kirby, Manager, Centre for Collaborative Health Professional Education
- Adam Reid, Research Coordinator, Centre for Collaborative Health Professional Education

Participating Students
- Faculty of Medicine
- Department of Psychology, (PsyD Program)
- School of Human Kinetics and Recreation
- MUN School of Nursing
- School of Pharmacy
- School of Social Work
- Western Regional School of Nursing
Date/Time
- Session 1: 1:00 – 4:00 pm
- Session 2: 1:00 – 4:00 pm
Online support will be available through Desire2Learn (D2L) effective.

Learning Objectives
Conflict is an inevitable part of working collaboratively. Developing effective conflict management skills is critical for all health and social care professionals to facilitate safe and high quality health and social care. Upon completing this training, students will be able to:

- Demonstrate an understanding of the underlying sources of conflict including, but not limited to:
  - role boundary issues,
  - scope of practice,
  - leadership,
  - impact of power differentials (e.g., between professions, positions, and genders, and racialization),
  - accountability and
  - patient related issues.
- Explain the principles underlying effective conflict management including barriers to managing conflict and strategies for preventing and resolving conflict.

Learning Activities
Learning activities will include a plenary session and team learning. Resources are available on Desire2Learn (D2L) to assist students with this training. For a list of student teams and meeting rooms, see the D2L course site IPE: Skills Training (Conflict) 2015 which will be available October 2nd.

Schedule for learning activities:

<table>
<thead>
<tr>
<th>October</th>
<th>Preparation for Team Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• You are <strong>required</strong> to complete <em>What is Your Conflict Management Style</em> and the <em>Assessing Emotions Scale</em> (available on D2L) and be prepared to discuss the results of these measures and what those results may mean about how you function as part of a team.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>October 1:00-4:00 pm</th>
<th>Team Learning (Various assigned meeting rooms; see D2L for room assignments)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Team learning:</td>
</tr>
<tr>
<td></td>
<td>- Welcome and overview</td>
</tr>
<tr>
<td></td>
<td>- Discussion: Conflict Management Style/ Assessing Emotions Scale Scores</td>
</tr>
<tr>
<td></td>
<td>- Discussion of interprofessional conflict scenarios</td>
</tr>
<tr>
<td></td>
<td>• Conflict video</td>
</tr>
<tr>
<td></td>
<td>- Co-facilitated by the HOPE Program Interprofessional Health Care Team</td>
</tr>
<tr>
<td></td>
<td>• Team learning:</td>
</tr>
<tr>
<td></td>
<td>- Behaviours that escalate conflict</td>
</tr>
<tr>
<td></td>
<td>- Peer-review and self-review process</td>
</tr>
<tr>
<td>November 1:00-4:00 pm</td>
<td>Team Learning (Two student teams will be assigned to each meeting room; see D2L for room assignments)</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>- Case study conflict resolution. Based on assigned case studies, each student team will discuss and resolve a healthcare team conflict situation and will be provided feedback on their conflict management style and strategies by the observing team and facilitators.</td>
</tr>
<tr>
<td></td>
<td>- Discussion of peer-assessment/self-assessment of team functioning skills. See D2L for details and instructions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>November</th>
<th>Reflection Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>You will be expected to integrate your (a) identified Conflict Management Style, (b) Assessing Emotions Scale scores, and (c) peer-review and self-review of your team functioning skills for this reflection. Requirements are:</td>
</tr>
<tr>
<td></td>
<td>1. Complete and submit peer- and self-review by</td>
</tr>
<tr>
<td></td>
<td>2. Submit personal reflection by</td>
</tr>
</tbody>
</table>

See the D2L course site [IPE: Skills Training (Conflict) 201?](https://online.mun.ca/) for the required forms and detailed instructions.

**Online Course Information and Instructions – available:**
An online course site has been established through D2L to support this interprofessional training session. To access the D2L course [IPE: Skills Training (Conflict) 201](https://online.mun.ca/) use the web site for Centre for Innovation in Teaching and Learning (CITL), [https://online.mun.ca/](https://online.mun.ca/). Follow the instructions on the login page to access this course.

The D2L course site provides the following information:
- Overview of this IP training
- What is Your Conflict Management Style and the Assessing Emotions Scale tools (must be completed prior to first session)
- Information and links related to interprofessional conflict
- Description/instructions/forms for peer- and self-assessment process
- List of student teams, meeting room locations, facilitators
- Reflection questions

**Certificate**
A certificate will be issued to students who complete the following components of this training:
4. Active participation for both IPST sessions
   - Includes preparation for session 1 and actively participating in all learning activities
5. Team presentation for assigned case study

More information and assessment rubrics for these activities are available on D2L.
Assessment
Students will be assessed by their team facilitator using the Rubrics attached below. Participating academic units may have additional assessment requirements related to the course affiliated with IPST training. Please refer to your program’s assessment criteria to determine specific requirements and expectations.

Contact information
Questions about this training and student participation can be directed to:
Brenda Kirby, Coordinator
Centre for Collaborative Health Professional Education
777-8809; bkirby@mun.ca
Interprofessional Conflict Assessment Rubrics
**Title:** Student Active Participation Rubric: IPST Conflict Management

**Task:** Students are expected to actively participate in the small group activity component of Session 1 of IPST: Interprofessional Conflict Management.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Quality of Contributions</td>
<td>The student did not attend the session and did not obtain an excused absence *</td>
<td>The student made no relevant contributions to the discussion</td>
<td>The student made occasional contributions, which were generally relevant</td>
<td>The student frequently made relevant, meaningful contributions to the group process</td>
<td>The student frequently contributed relevant, constructive comments to the discussion and encouraged others to do so as well</td>
</tr>
<tr>
<td>Listening</td>
<td>The student did not attend the session and did not obtain an excused absence *</td>
<td>The student did not display active listening, appeared uninterested, was checking mobile devices, or showed little respect for others’ perspectives</td>
<td>The student showed some evidence of active listening or respect for others’ perspectives</td>
<td>The student frequently listened actively when others were speaking, made eye contact, and showed respect for others’ perspectives</td>
<td>The student was consistently engaged and attentive to others, made eye contact, and supported and respected team members’ perspectives</td>
</tr>
</tbody>
</table>

* Students granted excuses are required to submit a remedial written assignment to receive active participation credit.
## Title: Student Team Debate Rubric: IPST Conflict Management 2

### Task: Using case studies, the team discusses and resolves a healthcare team conflict situation and will be provided feedback on their conflict management style and strategies by the observing team and facilitators.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>0: Poor</th>
<th>1: Marginal</th>
<th>2: Adequate</th>
<th>3: Good</th>
<th>4: Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identification of Source of Conflict</strong></td>
<td>Student team presentation did not identify any source of conflict.</td>
<td>Student team presentation included incomplete or partial description of the source(s) of conflict.</td>
<td>Student team presentation included an adequate description of the source(s) of conflict.</td>
<td>Student team presentation included a clear, well-developed description of the source(s) of conflict.</td>
<td>Student team presentation included a rich, detailed description of the source(s) of conflict and explained how the conflict impacted team functioning.</td>
</tr>
<tr>
<td><strong>Application of Conflict Management Strategy</strong></td>
<td>Student team presentation did not apply any conflict management strategy</td>
<td>Student team presentation depicted a conflict resolution without clearly identifying the strategy applied.</td>
<td>Student team presentation portrayed an adequate application of a conflict management strategy.</td>
<td>Student team presentation was clear and portrayed well the application of a conflict management strategy.</td>
<td>Student team presentation was clear and detailed in its portrayal of the application of a conflict management strategy, outlined how the strategy was appropriate and effective.</td>
</tr>
<tr>
<td><strong>Resolution of Conflict</strong></td>
<td>Student team did not present a resolution to the conflict in the case.</td>
<td>Student team identified a potential resolution to the conflict with insufficient detail.</td>
<td>Student team proposed a resolution to the conflict with adequate detail but no discussion of implications or outcomes.</td>
<td>Student team outlined a detailed, reasonable and potentially effective resolution to the conflict with limited discussion of implications or outcomes.</td>
<td>Student team outlined in detail a clear and feasible resolution to the conflict with detailed discussion of implications or outcomes.</td>
</tr>
<tr>
<td><strong>Evidence of Student Teamwork</strong></td>
<td>No evidence of shared workload/responsibility in the team presentation.</td>
<td>One or two student team members did all communication, appeared to do much more work than others.</td>
<td>Student presentation had adequate contribution from most members.</td>
<td>Student presentation had some contributions from all members.</td>
<td>Student presentation had consistent and substantive contributions from all members.</td>
</tr>
</tbody>
</table>
**Title:** Student Written Reflection Rubric: IPST Conflict Management

**Task:** Students enrolled in the IPST: Interprofessional Conflict Management sessions are required to submit a personal reflection to demonstrate understanding of the assigned materials.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>3: Unacceptable</th>
<th>1: Marginal</th>
<th>2: Developing</th>
<th>3: Competent</th>
<th>4: Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>No reflection was submitted.</td>
<td>The submission demonstrates no learning related to the assigned materials and concepts.</td>
<td>The submission demonstrates superficial learning related to the assigned materials and concepts.</td>
<td>The submission demonstrates an acceptable level of learning related to the assigned materials and concepts.</td>
<td>The submission demonstrates a high level of personalized learning related to the assigned materials and concepts.</td>
</tr>
<tr>
<td>Reflection</td>
<td>No reflection assignment was submitted.</td>
<td>The submission contains weak reflection with little detail, and demonstrates a superficial level of understanding or analysis of the personal impact of the educational event.</td>
<td>The submission contains an acceptable reflection with an adequate level of detail demonstrating a satisfactory level of understanding, questioning or analysis of the personal impact of the educational event.</td>
<td>The submission contains an exceptional reflection with rich and thoughtful detail demonstrating outstanding level of understanding, questioning and analysis of the personal impact of the educational event.</td>
<td></td>
</tr>
<tr>
<td>Writing Quality</td>
<td>No reflection assignment was submitted.</td>
<td>The submission is poorly organized and/or contains numerous grammatical and/or spelling errors.</td>
<td>The submission is incomplete and/or unclear but is reasonably well organized with some grammatical and/or spelling errors.</td>
<td>The submission contains an acceptable level of organization, is clear, and contains few minor grammatical and/or spelling errors.</td>
<td>The submission is very well organized, comprehensive and clear with no grammatical or spelling errors.</td>
</tr>
</tbody>
</table>
APPENDIX D
IPST Topic 4
Transition to Practice: When Teams Fail
(Sessions 1 and 2)
Interprofessional Education: Skills Training (IPST)

Topic 4: Transition to Practice
When Teams Fail: Lessons Learned

Winter

Interprofessional Education: Skills Training (IPST)

The Centre for Collaborative Health Professional Education (CCHPE) is offering a series of training activities designed to enhance student skills in collaboration, interprofessional communication, and conflict management. For the development and delivery of this initiative, CCHPE has partnered with the Faculty of Medicine; Schools of Nursing, Pharmacy, Human Kinetics/Recreation, and Social Work; and the Department of Psychology.

A certificate will be issued to students who complete the requirements for Interprofessional Education: Skills Training.

Interprofessional Curriculum Team

- Erin Davis, PharmD, School of Pharmacy
- Heather Hair, PhD, School of Social Work
- Olga Heath, PhD, Counselling Centre and Faculty of Medicine
- Kellie LeDrew, MD, FRCPC, Faculty of Medicine
- Michele Neary, PhD, Counselling Centre
- Carolyn Sturge Sparkes, PhD, Program Coordinator, Aboriginal Health Initiative (AHI)
- Anne-Marie Sullivan, PhD, School of Human Kinetics and Recreation

Support Team

- Brenda Kirby, Coordinator, Centre for Collaborative Health Professional Education
- Adam Reid, Research Coordinator, Centre for Collaborative Health Professional Education

Participating Students

- Faculty of Medicine
- Department of Psychology (PsyD Program)
- School of Human Kinetics and Recreation
- School of Nursing
- School of Pharmacy
- School of Social Work
- Western Regional School of Nursing
Date/Time
- Session 1: 1:00 – 4:00 pm
- Project Planning Meeting: 1:00-2:00 pm
- Session 2: 1:00 – 4:00 pm

Online support will be available through Desire2Learn (D2L) effective.

Purpose
This training more fully explores the challenges of implementing effective teamwork in practice settings and how collaborative practice impacts patient outcomes. Highly effective collaboration requires the support and commitment of individual professionals, the health/social care team and health/social system managers. Health and social care professionals are challenged to balance individual professional standards with team goals to optimize team functioning and at the same time promote desired outcomes for patients and families to provide safe, high quality care.

Students will explore these challenges within the context of real cases where teams failed to collaborate effectively resulting in adverse outcomes for patients and their families.

Learning Objectives
Upon completing this training, students will:
1. Demonstrate an understanding of how ineffective team functioning impacts patient care and how to address the factors contributing to adverse events.
2. Demonstrate an understanding of how individual professionals, the healthcare team, and management contribute to team functioning in practice settings through:
   a. appreciating and communicating respect for the contributions and culture of all members of the team including the patient and family;
   b. sharing leadership based upon the needs of the patient;
   c. preventing and resolving team conflict;
   d. addressing and managing power differentials; and
   e. setting up processes which support effective teamwork.

Learning Activities
See the table below for a schedule and brief description of learning activities. More detailed information and resources are available on Desire2Learn (D2L). See the D2L course site IPE: Skills Training (Transition to Practice) 201? which will be available.

Schedule for learning activities:

<table>
<thead>
<tr>
<th>January</th>
<th>Preparation for Team Learning</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Each student is required to find a real case or create a hypothetical case (guidelines provided on D2L) describing a health care scenario with an underlying problem related to collaboration and resulting in a poor patient</td>
</tr>
</tbody>
</table>
outcome (death, injury, or other form of patient harm). Students will share their cases with their team during Session 1 (learning activities described below).

| January 1:00-4:00 pm | 1:00-1:30 Briefing for the Plenary Presentation (Check D2L for your team’s assigned room)  
Facilitated team discussion to prepare students to have a meaningful, respectful discussion with the patient representative.  
1:30-2:30 Plenary Presentation (Auditorium)  
Presentation by a patient representative sharing her story of team failure, followed by a Q/A session.  

2:30 – 4:00: Team Learning (Various assigned meeting rooms; see D2L for room assignments)  
- Students will submit the cases that they have found/created and share them with their team (see Preparation for Team Learning above).  
- Each team will develop a case study describing a health care scenario with an underlying problem related to collaboration and resulting in a poor patient outcome (death, injury, or other form of patient harm):  
  - The team can select one of the students’ cases or develop a case drawing from elements of several cases.  
  - The case developed must incorporate concepts presented in previous IPST sessions (i.e. professional roles, teamwork, interprofessional communication, interprofessional conflict, culture).  
  - A template will be provided to ensure that the developed case meets required criteria.  
- Teams will submit their case to CCHPE via D2L Dropbox by Tuesday, January.  

| January - February, Team Project | Each team will be assigned a case study that was developed by another team. Each team will identify the factors contributing to the outcome of the assigned case and “re-write the script.” i.e. They will re-write the scenario to address the identified factors so that the end result is a more positive outcome for the patient/family.  
- A template will be provided to ensure that the project meets required criteria.  
- The team project will be submitted to CCHPE via D2L Dropbox (deadline February)  
- Teams will present their cases during Session 2 (February). A team project planning session has been scheduled for.  
See D2L for assigned rooms. Pizza and drinks will be provided (starting at 12:30 in Theatre B).  

31
| February 1:00-4:00 pm | 1:00-1:50: Presentation (Auditorium)  
Carol Chafe, The Advocate for Children and Youth, will present a case that demonstrates a situation where problems with interprofessional collaboration resulted in failure to protect the health and safety of a child/children. The presentation will be followed by a Q/A session.  
2:00-3:00 – Team Presentations (check D2L for assigned rooms)  
- Student teams will:  
a) present their assigned case study,  
b) identify the issues, and  
c) present their “re-written script” which addresses these issues  
  - Each presentation will be followed by feedback and discussion.  
  - 20 minutes allotted for each presentation (10 minutes to present; 10 minutes for feedback and discussion).  
  - Top two presentations will be featured on CCHPE website and the team will receive a congratulatory letter.  
3:00-4:00 – Team Reflection  
- Members of the team will work together to answer questions which will require them to reflect on their learning and team functioning. The team reflection will be submitted via D2L Dropbox (deadline February 21).  

Note: Students who are not present for this session will be required to submit an individual reflection.  

Online Course Information and Instructions – available January:  
An online course site has been established through D2L to support this interprofessional training. To access the D2L course IPE: Skills Training (Transition to Practice) 201 use the web site for Centre for Innovation in Teaching and Learning (CITL), [https://online.mun.ca/](https://online.mun.ca/). Follow the instructions on the login page to access this course.  
The D2L course site provides the following information:  
- Overview of this IP training  
- Detailed instructions and guidelines for learning activities  
- Resources related collaborative practice  
- List of student teams, meeting room locations, facilitators  

Certificate
A certificate of completion will be issued to students who complete the following components of this training:

1. Active participation for both IPST sessions
   a. Includes individual preparation for session 1 and working with the team to develop/submit a case, prepare/present assigned case, and develop team reflection
2. Submission of team case study project
3. Presentation of team project
4. Submission of team reflection

More information and assessment rubrics for these activities are available on D2L.

Assessment
Students will be assessed by their team facilitator using the Rubrics attached below. Participating academic units may have additional assessment requirements related to the course affiliated with this learning activity. Please refer to your program’s assessment criteria to determine specific requirements and expectations.

Contact information
Questions about this training and student participation can be directed to:
Brenda Kirby, Coordinator
Centre for Collaborative Health Professional Education
864-4926; bkirby@mun.ca
Transition to Practice: When Teams Fail Assessment Rubrics
Title: Student Group Active Participation Rubric – IPST Transition to Practice

Task: Students are expected to actively participate in the small group activity component of session 1 of IPST Transition to Practice.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Contributions</td>
<td>0: Unacceptable</td>
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<tr>
<td></td>
<td>1: Marginal</td>
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<td></td>
<td>2: Developing</td>
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<thead>
<tr>
<th></th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
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<td>0: Unacceptable</td>
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<tr>
<td></td>
<td>1: Marginal</td>
</tr>
<tr>
<td></td>
<td>2: Developing</td>
</tr>
<tr>
<td></td>
<td>3: Competent</td>
</tr>
</tbody>
</table>

* Students approved for an excused absence by the administration of their academic unit or course faculty lead are required to submit a remedial written assignment to receive active participation credit.
Title: Student Team Presentation Rubric: IPST Transition to Practice Session 2

Task: Each team will be assigned a case study that was developed by another team. Each team will identify the factors contributing to the outcome of the assigned case and "re-write the script." i.e. They will re-write the scenario to address the identified factors so that the end result is a more positive outcome for the patient/family.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>0: Poor</th>
<th>1: Marginal</th>
<th>2: Adequate</th>
<th>3: Good</th>
<th>4: Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration failure case presentation</td>
<td>Student team provided no summary of the factors leading to collaboration failure in the case</td>
<td>Student team presentation included incomplete or partial description of the factors leading to collaboration failure in the case</td>
<td>Student team presentation included a basic description of the factors leading to collaboration failure in the case</td>
<td>Student team presentation included a detailed description of the factors leading to collaboration failure in the case</td>
<td>Student team presentation included a detailed, concise and meaningful outline of the factors leading to collaboration failure in the case</td>
</tr>
<tr>
<td>Patient/family outcome</td>
<td>Student team failed to discuss the impact that collaboration (or lack thereof) had on the patient/family outcomes</td>
<td>Student team superficially or partially described the impact of collaboration (or lack thereof) on patient/family outcomes</td>
<td>Student team described the impact of collaboration (or lack thereof) on the patient/family to a limited degree</td>
<td>Student team described the impact of collaboration (or lack thereof) on the patient/family, with clear link to collaboration failure</td>
<td>Student team described in detail the impact of collaboration (or lack thereof) on the patient/family, with clear link to collaboration failure</td>
</tr>
<tr>
<td>Approach to improve collaboration</td>
<td>Student team did not present a solution to the collaboration failure</td>
<td>Student team identified a potential solution to the collaboration failure with insufficient detail</td>
<td>Student team proposed a solution to the collaboration failure with some detail but no discussion of implications for outcomes</td>
<td>Student team outlined a detailed, reasonable and potentially effective solution to the collaboration failure with limited discussion of implications for outcomes</td>
<td>Student team outlined in detail a feasible and creative solution to the collaboration failure with clear and detailed discussion of implications for outcomes</td>
</tr>
<tr>
<td>Evidence of student teamwork</td>
<td>No evidence of shared workload/responsibility in the team presentation</td>
<td>One or two student team members did all communicating, appeared to do much more work than others</td>
<td>Student presentation had uneven contribution from all members</td>
<td>Student presentation had consistent contributions from all members</td>
<td>Student presentation had consistent and substantive contributions from all members</td>
</tr>
</tbody>
</table>
Title: Student Team Written Reflection Rubric – IPST Transition to Practice Session 2

Task: Members of each team will work together to answer questions which will require them to reflect on their learning and team functioning.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>0: Unacceptable</th>
<th>1: Marginal</th>
<th>2: Developing</th>
<th>3: Competent</th>
<th>4: Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning</td>
<td>No reflection assignment was submitted.</td>
<td>The submission demonstrates no learning related to the assigned materials and concepts; very basic description of activities, no learning objectives discussed.</td>
<td>The submission demonstrates superficial learning related to the assigned materials and concepts; at least one learning objective is identified, but not elaborated upon.</td>
<td>The submission demonstrates an acceptable level of learning related to the assigned materials and concepts; at least two learning objectives are identified and discussed.</td>
<td>The submission demonstrates a high level of personalized learning related to the assigned materials and concepts; at least two learning objectives are identified and discussed in depth. The discussion should include an emphasis on how the learning applied in the context of the group.</td>
</tr>
<tr>
<td>Reflection</td>
<td>No reflection assignment was submitted.</td>
<td>The submission contains weak reflection with little detail, and demonstrates a superficial level of understanding or analysis of the personal impact of the educational event. Opinions are stated, but not elaborated upon.</td>
<td>The submission contains an acceptable reflection demonstrating a satisfactory level of understanding, questioning and/or analysis of the personal impact of the educational event. Opinions are stated and elaborated upon.</td>
<td>The submission contains an exceptional reflection with rich and thoughtful detail demonstrating outstanding level of understanding, questioning and analysis of the personal impact of the educational event. Should include a discussion of how the learning applies to the bigger-picture (e.g. outside the training context).</td>
<td></td>
</tr>
<tr>
<td>Writing Quality</td>
<td>No reflection assignment was submitted.</td>
<td>The submission is poorly organized and/or contains numerous grammatical and/or spelling errors.</td>
<td>The submission is unclear but is reasonably well organized with some grammatical and/or spelling errors.</td>
<td>The submission contains an acceptable level of organization and is clear, with few minor grammatical and/or spelling errors.</td>
<td>The submission is very well organized and clear, with no grammatical or spelling errors.</td>
</tr>
</tbody>
</table>
APPENDIX E
IPE Case-Based Module 1
Health and Wellbeing of Children
Health and Wellbeing of Children – Risk and Protective Factors
Interprofessional Education Module
Winter

Participating Academic Units
- Centre for Nursing Studies
- Faculty of Arts (Diploma in Police Studies)
- School of Social Work
- Department of Psychology, Faculty of Science (PsyD Program)

Affiliated Courses
All interprofessional education (IPE) modules are affiliated with core curricular courses. This IPE module is affiliated with:
- Nursing 2014 Community Health Nursing Theory
- Social Work 3221 Social Impacts on Human Development
- Sociology 4212 Sociology of Policing

Dates
- Face-to-Face Learning: Tuesday, March 15th, 2016, 9:00 am-12:00 pm

Health and Wellbeing of Children
- Stephen Ellenbogen, BA, MSc, PhD, School of Social Work
- Olga Heath, PhD, Counselling Centre and Faculty of Medicine
- Lisa Picco, BN, MN, Centre for Nursing Studies
- Gladys Schofield, RN, BSc, BEd, BN, MEd, Centre for Nursing Studies
- Lorna Walsh, BN, RN, MEd, Centre for Nursing Studies

Interprofessional Instructional Resource Team
- Karen Gray, Director of Individual and Systemic Advocacy, Advocate for Children and Youth
- Brenda Kirby, Coordinator, Centre for Collaborative Health Professional Education, Memorial University
- Adam Reid, Research Coordinator, Centre for Collaborative Health Professional Education, Memorial University
Purpose
Interprofessional teamwork or collaborative care signifies the provision of care by providers of different professions in a coordinated and integrated manner. These providers become an interprofessional team when they are able to communicate effectively with each other and share responsibility for the effective care and wellbeing of children and families. An interprofessional team approach allows providers to contribute from their individual areas of expertise and creates an environment for innovative care by bringing together different perspectives. The care provided is enhanced by the integration of ideas about needs and intervention strategies that would not be possible without the collective knowledge, skills, and competence of an interprofessional team.

The primary aim of this interprofessional education module is to introduce students to principles and concepts of interprofessional teamwork with children at risk and their families. This module is ‘interprofessional’ in that students will be learning, interacting and collaborating with their peers from other professional education programs.

Learning Objectives
• Identify the role of each professional on an interprofessional team working with and for children at risk and their families.
• Describe ethical considerations and regulatory mandates within which different professions approach collaborative work with children at risk and their families.
• Discuss the value and importance of an interprofessional team approach when working with children at risk and their families.

Learning Activities
Over the course of this module, students will participate in online and face-to-face learning activities that include a case study assignment, small-group learning activities, and a plenary session.

There are resources posted on Desire2Learn (D2L) to assist students with the case study assignment. For a list of student groups, meeting rooms, and assigned case study questions, see the D2L course site Health and Wellbeing of Children 2016 which will be available February 25, 2016.

Schedule for learning activities:

<table>
<thead>
<tr>
<th>February 29-March 14, 2016</th>
<th>Case Study Assignment (Online and Face-to-Face)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The case study assignment will be completed in three parts as described below. Students are expected to participate in all three parts of the module. Each student's participation will be assessed as part of a report to respective academic departments after the module offering.</td>
</tr>
<tr>
<td></td>
<td>Questions about this assignment or other learning activities should be directed to your small-group facilitator by email (facilitator contact information will be available on the D2L course site).</td>
</tr>
<tr>
<td></td>
<td>Part 1 – February 29-March 6, 2016 Review Part I of the case study (available on the D2L course site Health and Wellbeing of Children 2016) and reflect on all case study questions. In addition,</td>
</tr>
</tbody>
</table>
one specific question will be assigned to each student. Students are required to 
post a response for their assigned question to their group’s online 
discussion board, which is available on the D2L course site. Students are also 
expected to respond to other students’ postings. See List of Student Groups 
on the D2L course site for assigned questions for Part I.

- Post response to assigned question by March 3.
- Participate in online discussion of Part 1 March 4-6.

Part II – March 7-13, 2016
Case Study Part II will be posted to the D2L course site on March 7th. Again, each 
student is required to review the case, reflect on all case study questions, and post 
a response to a specific question that has been assigned to him/her. As well, 
students are expected to respond to other students’ postings. See List of 
Student Groups on the D2L course site for assigned questions for Part II.

- Post response to assigned question by March 10.
- Participate in online discussion of Part 2 March 11-13.

Part III – March 11-14, 2016
Case Study Part III will be posted to the D2L course site on March 11th. Students 
are responsible to review the information presented and reflect on the case study 
questions in preparation for the face-to-face discussion. These questions will be 
discussed at the team meetings scheduled for March 15th.

| 9:00-10:20 | Interprofessional Team Learning |
| March 15, 2016 | (various assigned meeting rooms in the Health Science Centre and Medical Education Centre) |

Students will meet with their pre-assigned teams. These will be the same teams as 
for the online discussion activity. The location of the team meeting will be posted 
online (see List of Student Teams). If you need direction to your assigned meeting 
room, see the staff at the information desk in the Atrium of the Medical Education 
Centre.

Students will continue their discussion of the online case study and the questions 
posed in Case Study Part III. A facilitator will assist each team with the process of 
team learning.

| 10:20-10:30 |
| Students will move to the Main Auditorium, Health Sciences Centre, for the plenary session.

| 10:30-12:00 |
| March 15, 2016 |
| Plenary Session |
| (Health Sciences Centre Auditorium) |

A panel comprised of professionals involved in child protection will simulate a case 
consultation on the family depicted in the case study. They will also address 
issues and questions raised by the interprofessional student teams.
Accessing Desire2Learn: To access Desire-2-Learn, use the web site for CITL - Centre for Innovation in Teaching and Learning (http://online.mun.ca/) and follow the instructions on the login page. From the My Home page, select: Health and Wellbeing of Children 2016 from the list of courses found under My Memorial University of Newfoundland Courses.

Desire2Learn Tutorial: For students unfamiliar with Desire2Learn, there is an on-line tutorial available at www.distance.mun.ca/current/d2l/.

Certificate
A CCHPE certificate of attendance will be issued to students who complete all components of this IPE training as described above.

Assessment
Students will be assessed by their team facilitator based on attendance and meaningful contribution to the team discussion both online and in small groups. Participating academic units may have additional assessment requirements related to the course affiliated with this learning activity. Please refer to your program’s assessment criteria to determine specific requirements and expectations.

Key points related to participation in interprofessional curricula
- Students are expected to participate in all components of the IPE module: online discussion, small group activity, and plenary.
- All discussion board postings should be concise entries (maximum 2 paragraphs and free from unnecessary detail) that demonstrate the application of knowledge to the subject matter under discussion, critical thinking, and have the potential to inspire discussion and debate.
- Discussion board postings where you introduce yourself or simply agree with someone else’s point of view or analysis with no further discussion will not be considered valid posts in terms of evaluation.
- Professional behaviour is expected in all IPE components. Student behaviour will be monitored by faculty and unprofessional posts, comments, or general behaviour will be addressed. This IPE module is considered regular classroom or clinical time.
- Cell phones, ipods, blackberries, or other electronic communication devices are not permitted to be operated during the face-to-face learning activities and plenary session.

Contact information
Questions about this training and student participation can be directed to:
Brenda Kirby, Coordinator
Centre for Collaborative Health Professional Education
864-4926; bkirby@mun.ca
APPENDIX F
IPE Case-Based Module 2
Mental Health: Geriatric Depression
Collaborative Mental Health Care - Depression
Interprofessional Education Module
Fall 2015

Participating Academic Units
- Centre for Nursing Studies
- Faculty of Medicine
- Department of Psychology, Faculty of Science (PsyD Program)
- School of Pharmacy
- School of Social Work

Affiliated Courses (All interprofessional education (IPE) modules and blocks are affiliated with core curricular courses.)
- Medicine 7730 Special Projects III
- Nursing 3001 Nursing Concepts for Mental Health
- Pharmacy 5650 Pharmacy Skills
- Psychology 7033 Practicum in Advanced Assessment and Intervention I
- Social Work 4314 Social Work Knowledge and Skills for Practice with Families

Date/Time
- Tuesday, November 17, 2015, 9:30 am – 12 noon.
- Online support (additional information and instructions) will be available through Desire2Learn (D2L) effective November 9, 2015

Location
- Various meeting rooms in the Medical Education Centre and Health Sciences Centre.
  Meeting room locations for student teams will be posted on the D2L course site.

Interprofessional Instructional Team
- Anna Marie Alleen, BN, RN, MN, Western Regional School of Nursing
- Florence Budden, BN, RN, Centre for Nursing Studies
- Heather Hair, PhD, School of Social Work
- Taryn Hearn, BA, MSc, MD, FRCP(C), Faculty of Medicine
- Olga Heath, PhD, Counselling Centre and Faculty of Medicine
- Glenda Manning, RN, BN, MN, Centre for Nursing Studies
- Shirley Matchim, RN, BN, MN, Centre for Nursing Studies
- Bob Meadus, BN, 3VocEd, MSc(N), PhD, School of Nursing
- Michele Neary, PhD, Counselling Centre
- Leslie Phillips, BSc(Pharm), PharmD, School of Pharmacy
Nicole Snow, BN, RN, MN, CPMHN(C), School of Nursing

Interprofessional Resource Team
- Brenda Kirby, Coordinator, Centre for Collaborative Health Professional Education
- Karen Mitchell, Standardized Patient Educator, Standardized Patient Program, Faculty of Medicine
- Adam Reid, Research Coordinator, Centre for Collaborative Health Professional Education

Purpose
Interprofessional healthcare teamwork or collaborative care signifies the provision of health care by providers of different professions in a coordinated and integrated manner. These providers become an interprofessional team when they are able to communicate effectively with each other and to share responsibility for the effective management of a patient/client’s health care. An interprofessional team approach allows providers to contribute from their individual areas of expertise and creates an environment for innovative care by bringing together different perspectives. The care provided to patients/clients is enhanced by the integration of ideas about patient needs and intervention strategies that would not be possible without the collective insight of an interprofessional team.

The primary aim of this IPE module is to introduce students to principles and concepts of interprofessional teamwork with patients/clients with depression. This module is ‘interprofessional’ in that you will be learning, interacting and collaborating with peers from other health professional education programs.

Learning Objectives
Upon completion of this module, students will be able to:
1. Identify the role of each professional on an interprofessional team providing care for individuals with depression.
2. Recognize the value of teamwork and the roles of all health professionals in providing collaborative mental health care.
3. Demonstrate collaboration in the development of an interprofessional care plan for mental health care.

Learning Activities
Over the course of this module, you will be participating in uniprofessional learning activities (i.e. interacting with students from your own profession) as well as interprofessional learning activities with students from medicine, nursing, psychology, social work, and pharmacy. You will also be interacting with a Standardized Patient (SP) who will be enacting the role of the case study patient. Uniprofessional interviewing followed by interprofessional care planning mimics what often happens in clinical practice.

Uniprofessional team assignments: Uniprofessional teams will be responsible for interviewing the Standardized Patient to collect profession-specific patient information which will later be shared with an interprofessional student team. Prior to the SP interviews, uniprofessional teams (see D2L course site for team assignments and meeting room locations) will meet with a facilitator to plan the interview. As planning time is limited, students must be familiar with the case history available on the D2L course site and come prepared with potential interview questions.
Interprofessional team assignments: Following the SP interviews, students will meet with their interprofessional teams (see D2L course site for team assignments and meeting room locations) to report the issues identified by his/her profession. The interprofessional team will discuss a plan of care/next steps for the patient. This will be followed by a facilitated discussion related to the team process.

Schedule for learning activities:

<table>
<thead>
<tr>
<th>Time</th>
<th>Uniprofessional Team Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30-10:00</td>
<td>Uniprofessional student teams will meet with a facilitator to prepare for the SP interview. The interview will be conducted from the profession's perspective. Students will select which of their questions will be asked and decide how the interview will be conducted.</td>
</tr>
<tr>
<td>10:00-10:20</td>
<td>SP interview focusing on the issues of the specific profession. Note: SP's should be treated as a real patient and interaction with them should reflect this (e.g., speak to the SP by name, be careful of nonverbal communication etc.).</td>
</tr>
<tr>
<td>10:20-10:40</td>
<td>Facilitated debriefing — students will identify the key issues/recommendations they will report to the interprofessional team</td>
</tr>
<tr>
<td>10:40-10:50</td>
<td>Students will move to meeting rooms assigned for interprofessional team meetings.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>Interprofessional Team Activities</th>
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<tbody>
<tr>
<td>10:50-11:00</td>
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<tr>
<td>11:00-11:25</td>
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<tr>
<td>11:25-12:00</td>
</tr>
</tbody>
</table>

Online Course Information and Instructions – available November 9, 2015:

An online course site has been established through Desire2Learn (D2L) to support this interprofessional education learning module. To access the D2L course Collaborative Mental Health 2015, use the web site for Centre for Innovation in Teaching and Learning (CITL), http://online.mun.ca/ and follow the instructions on the login page to access your course.

Desire2Learn Tutorial: For students unfamiliar with Desire2Learn, there is an online tutorial available at www.distance.mun.ca/current/d2l/.

The Collaborative Mental Health 2015 course site provides the following information:

- Overview of this IPE module;
- The Standardized Patient Case History - Please read the case history and prepare interview questions BEFORE the meeting on November 17th;
• Information and links related to depression, stigma and mental health, and interprofessional collaboration;
• Links to community resources;
• List of student teams (uniprofessional and interprofessional) and meeting room locations.

Evaluation
Students will be assessed by their team facilitator using the Rubric attached below. Please refer to your program’s assessment criteria to determine other requirements and expectations. Students will be asked to complete an evaluation questionnaire upon completion of this module.

Key points related to participation in interprofessional curricula
• Students are expected to participate in all components of the IPE module: reading the online case study and both small group activities.
• Professional behaviour is expected in both small group IPE components. Student behaviour will be monitored by faculty and unprofessional behaviour will be addressed. Your IPE module is considered regular classroom or clinical time.

Contact information
Questions about this module can be directed to your faculty supervisor or to:
Brenda Kirby, Coordinator, Centre for Collaborative Health Professional Education
777-8809, bkirby@mun.ca
Facilitator:  

Title: Collaborative Mental Health Care Module Student Group Active Participation Rubric

Task: Students are expected to actively participate in the interprofessional small group activity of the Collaborative Mental Health Care Module.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Rating</th>
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<tbody>
<tr>
<td></td>
<td>0: Did not participate</td>
</tr>
<tr>
<td>Quality of Contributions</td>
<td>The student made no relevant contributions to the interprofessional</td>
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<tr>
<td></td>
<td>group discussion.</td>
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<tr>
<td></td>
<td>The student did not attend the module.</td>
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<tr>
<td>Listening</td>
<td>The student did not attend the module.</td>
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<tr>
<td></td>
<td>The student did not display active listening, appeared uninterested,</td>
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<td>was checking mobile devices, or showed little respect for others’</td>
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<td></td>
<td>perspectives.</td>
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</table>

Instructions: Using the rubric above as a guide, please assign a score from 0 to 3 on each dimension for every student in your interprofessional small group activity. Please do not share these scores with students. Return the completed rubric from to a Centre for Collaborative Health Professional Education staff member at the end of the module or at the CCHPE offices, first floor, Health Sciences Centre, suite 1650, across from the Physiotherapy Clinic. Thank you!

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Quality of Contributions Score</th>
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APPENDIX G

IPE Case-Based Module 3
HIV
Participating Academic Units
- Department of Psychology, Faculty of Science (PsyD Program)
- Faculty of Medicine
- School of Nursing
- School of Pharmacy
- Western Regional School of Nursing

Affiliated Courses
- Medicine 7730 Special Projects 3
- Nursing 3113 Nursing Leadership and Management
- Pharmacy 4651 Pharmacy Skills
- Psychology 7034: Practicum in Advanced Assessment and Intervention II

Dates
- E-Learning: February 24-March 2, 2016
- Face-to-Face Learning: Thursday, March 3, 2016, 1:00-4:00 pm

Interprofessional Curriculum Team
- Natalie Bridger, MD, FRCP(C), Faculty of Medicine
- Deborah Kelly, BSc(Pharm), ACPR, PharmD, AAHIVP, School of Pharmacy
- Zaida Rahaman, BScN, MN, School of Nursing
- Michelle Neary, PhD, The Counselling Centre
- Judith Strickland, BN, MN, Western Regional School of Nursing
- Beth Whelan, PhD, Department of Psychology

Instructional Resource Team
- Kimberley Burt, Nurse Practitioner - HIV Program, Eastern Health
- Valerie Corcoran, HIV Services Provincial Coordinator, AIDS Committee of Newfoundland and Labrador
- Brenda Kirby, Coordinator, Centre for Collaborative Health Professional Education
- Karen Mitchell, Standardized Patient Educator, Standardized Patient Program, Faculty of Medicine
- Adam Reid, Research Coordinator, Centre for Collaborative Health Professional Education

Purpose
Interprofessional healthcare teamwork or collaborative care signifies the provision of health care by providers of different professions in a coordinated and integrated manner. These providers become an interprofessional team when they are able to communicate effectively
with each other and share responsibility for the effective management of a patient/client's health care. An interprofessional team approach allows providers to contribute from their individual areas of expertise and creates an environment for innovative care by bringing together different perspectives. The care provided to patients/clients is enhanced by the integration of ideas about patient needs and intervention strategies that would not be possible without the collective insight of an interprofessional team.

The primary aim of this interprofessional education module is to introduce students to principles and concepts of interprofessional teamwork with persons or patients living with HIV/AIDS and their families. This module is 'interprofessional' in that you will be learning, interacting and collaborating with peers from other health professional education programs.

**Learning Objectives**
Upon completion of this module, students will be able to:
1. Identify the role of each professional on an interprofessional HIV team.
2. Recognize the value of teamwork and the roles of all health professionals in providing collaborative HIV care.
3. Discuss the ethical and psychosocial support issues surrounding collaborative HIV management.
4. Describe a collaborative patient-centred clinical approach to HIV management.
5. Demonstrate collaboration in the development of an interprofessional care plan for a person living with HIV.

**Learning Activities**
Over the course of this module, students will participate in online and face-to-face learning activities that include a case study assignment, small-group learning activities, and a plenary session. Students will also be interacting with a Standardized Patient (SP) who will be enacting the role of the case study patient.

**Schedule for learning activities:**

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Online Case Study Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 24-March 2, 2016</td>
<td>Participating students will be divided into interprofessional teams. Students are required to review the case study (available on the D2L course site <em>IPE for HIV Care 2016</em>) and discuss the case study questions with their team using their team's online discussion forum. Each team is required to bring a list of questions for the patient interview to the face-to-face meeting scheduled for March 3 (see more information below regarding the patient interview). Deadline to participate in the online discussion – March 2, 2016 Questions about this assignment or other learning activities may be directed to your team's facilitator by email (facilitator contact information will be available on the D2L course site).</td>
</tr>
<tr>
<td>March 3, 2016 1:00-3:00 pm</td>
<td><strong>Small-Group Activity</strong> Corning Brook students will meet with their course faculty lead for a facilitated discussion of the case study patient. St. John's students will meet in their pre-assigned teams for a facilitated small-group activity</td>
</tr>
</tbody>
</table>

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learning activity (see list of student teams on the D2L course site). Each team will interview a standardized patient (SP) who will portray the role of the case study patient. Because of time constraints, it is important that your team review the case and plan the interview questions in advance (see above). The table below outlines the process for this learning activity.

<table>
<thead>
<tr>
<th>Time</th>
<th>Activities</th>
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</table>
| 1:00-1:35 pm | • Student teams meet with a facilitator to prepare for the SP interview. Students will plan the interview based on their online discussion of the case.  
• Students identify a patient-centred, collaborative approach to meeting/interviewing the patient. |
| 1:35-2:00 pm | • SP interview. Note: SP's should be treated as a real patient and interaction with them should reflect this (e.g., address the SP by name, be careful of nonverbal communication, etc.) |
| 2:00-2:35 pm | • SP leaves.  
• Students assess information gathered from the SP and formulate an interprofessional plan of care which integrates the roles, knowledge and expertise of each profession. |
| 2:35-2:55 pm | • SP re-enters; students present and discuss the plan of care.  
• Debriefing and feedback from facilitator and SP on patient-centred approach. |
| 2:55-3:00 pm | • Students move to the Auditorium for the plenary session                  |

March 3, 2016  
3:00-4:00 pm  
Plenary Session  
(Health Science Centre Auditorium. Corner Brook students will participate by videoconference)

A panel comprised of the provincial HIV clinical team, a patient representative, and other community and health professionals will discuss their roles and collaborative care for the care of persons living with HIV. They will also address issues and questions raised by the interprofessional student teams.

Online Course Information and Instructions – available February 24, 2016:

An online course site has been established through Desire2Learn (D2L) to support this interprofessional education learning module. To access the D2L course IPE for HIV Care 2016, use the website for Centre for Innovation in Teaching and Learning (CITL), http://online.mun.ca/ and follow the instructions on the login page.

Desire2Learn Tutorial: For students unfamiliar with Desire2Learn, there is an online tutorial available at www.distance.mun.ca/current/d2l/.
The *IPE for HIV Care 2016* course site provides the following information:

- Overview of this IPE module;
- The Standardized Patient Case History – As noted above, student teams are required to discuss the case and prepare patient interview questions BEFORE the meeting on March 3rd;
- Information and links related to treatment of persons living with HIV;
- List of student teams and meeting room locations.

**Certificate**
A CCHPE certificate of attendance will be issued to students who complete all components of this IPE training as described above.

**Assessment**
Students will be assessed by their team facilitator using the Rubric attached below. Participating academic units may have additional assessment requirements related to the course affiliated with this learning activity. Please refer to your program’s assessment criteria to determine specific requirements and expectations.

**Key points related to participation in interprofessional curricula**
- Students are expected to participate in all components of the IPE module: on-line discussion, small group activity, and plenary.
- Discussion board postings should be original and concise messages that demonstrate the application of knowledge to the subject matter under discussion, critical thinking, and have the potential to inspire discussion and debate. Posts are always respectful of the professional opinions of others.
- Discussion board postings where you introduce yourself or simply agree with someone else’s point of view or analysis with no further discussion will not be considered valid posts in terms of evaluation.
- Professional behaviour is expected in all IPE components. Student behaviour will be monitored by faculty; unprofessional posts, comments, or general behaviour will be addressed. This IPE module is considered regular classroom or clinical time.
- Cell phones, ipods, blackberries, or other electronic communication devices are not permitted to be operated during the face-to-face learning activities.

**Contact Information**
Questions about this module can be addressed to your facilitator (see D2L course site for facilitator contact information) or to:

Brenda Kirby, Coordinator
Centre for Collaborative Health Professional Education
864-4926; bkirby@mun.ca
Title: HIV Care Module Student Group Active Participation Rubric

Task: Students are expected to actively participate in the interprofessional small group activity of the HIV Care Module.

<table>
<thead>
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<td>0: Did not participate</td>
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<td>to the interprofessional group discussion.</td>
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Please note that this rubric will be used only for students attending the HIV Care Module in St. John's.
Hi Gail,

The committee has approved the following special topics courses:

COMP-6917 Complex networks.
EASC-6930 Seafloor hydrothermal processes.
PSYC-6116 Human depth perception: normal and abnormal development.

Thus, these courses are ready to be submitted to the Faculty Council for information.

Also, the committee approved the following regular courses:

COMP-6933 Nonlinear and linear optimization (cross-listed with MATH-6203)
COMP-6907 Data mining techniques and methodologies
MATH-6203 Nonlinear and linear optimization (cross-listed with COMP-6933)

These three courses can be forwarded for the consideration/approval of the Academic Council.

All six courses received 14 votes in favour (Ron, Stephanie, Todd, Carolyn, Kapil, Len, Christina, Joe, Kareem, Kur, Cyr, Ratana, Rob and myself). None against.

-j

--
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"
# Request for Approval of a Graduate Course

*Adobe Reader, minimum version 8, is required to complete this form.* Download the latest version: [http://get.adobe.com/reader](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**

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

**Course No.:** COMP 6933 (to be cross-listed with MATH 6203)  
**Course Title:** Nonlinear and Linear Optimization

### I. To be completed for all requests:

#### A. Course Type:
- [X] Lecture course
- [ ] Laboratory course
- [ ] Directed readings
- [ ] Lecture course with laboratory
- [ ] Undergraduate course
- [ ] Other (please specify) Project

#### B. Can this course be offered by existing faculty?  
- [X] Yes  
- [ ] No

#### C. Will this course require new funding (including Payment of Instructor, labs, equipment, etc.)?  
- [X] Yes  
- [ ] No

#### D. Credit hours for this course: 3

#### E. Estimated number of contact hours per semester: 48

#### F. Course description (reading list required):  
See attached pages (2)

#### G. Method of evaluation:

<table>
<thead>
<tr>
<th>Written</th>
<th>Percentage</th>
<th>Oral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class tests</td>
<td>30</td>
<td></td>
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<tr>
<td>Assignments</td>
<td>20</td>
<td></td>
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<tr>
<td>Other (specify):</td>
<td></td>
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<tr>
<td>Project</td>
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<tr>
<td>Final examination:</td>
<td>50</td>
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<tr>
<td><strong>Total</strong></td>
<td>100</td>
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</tbody>
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1. 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 ______________________
2. double credit ______________________
3. work that is a faculty research product ______________________
4. overlap with existing courses ______________________

Recommended for offering in the

☐ Fall    ☐ Winter    ☐ Spring  20____

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

Georgios Miminis

Course instructor

W. Pamey

Approval of the head of the academic unit

Date

May 4, 2016

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

Secretary, Faculty/School/Council

Date

Updated October 2011
COMP 6933: Nonlinear and Linear Optimization
Crosslisted with MATH 6203

Many problems in mathematics, computational science, statistics and engineering, may be posed as an optimization problem. These problems are categorized based on the linearity or nonlinearity of the objective function and constraints and the nature of the decision variables. The numerical algorithms designed to solve these problems may be deterministic or stochastic, gradient based or derivative free. This course is intended for graduate students in Mathematics, Computer Science, and other applied science and engineering disciplines where numerical optimization problems arise.

Objectives: This course will provide students with an overview of numerical approaches for linear and nonlinear optimization problems with a focus on theory, implementation and computation.

Prerequisites: Undergraduate linear algebra at the level of MATH2051, multivariable Calculus, experience with programming (Matlab, Python or R preferred), experience with computer simulation.

Tentative Outline:

1. Linear Optimization
   (a) Linear programming: problem formulation, the simplex method, duality, complexity, interior point methods
   (b) Network flows: maximum flows, minimum cuts, Ford-Fulkerson algorithm
   (c) Integer Linear Programming: branch and bound methods
   (d) Applications: transportation and shipping problems

2. Nonlinear Optimization
   (a) Derivative based methods for unconstrained optimization: optimality conditions, steepest descent, line search, Newton/Quasi Newton approaches:
   (b) Derivative based methods for constrained Optimization: optimality conditions, feasible point methods, Lagrange multipliers, sequential quadratic programming, penalty and barrier methods
   (c) Derivative free algorithms: co ordinate search algorithms, genetic algorithms, particle swarm optimization

Library Resources: The following texts are either freely available online or as e-books through the library’s existing subscriptions:

- Beck, Introduction to Nonlinear Optimization, SIAM, 2014
- Locatelli & Schoen, Global Optimization, SIAM, 2013
• Levy, The Basics of Practical Optimization, SIAM, 2009
• Conn, Scheinberg, Vicente, Introduction to Derivative-Free Optimization, SIAM, 2009
• Ferris, Mangasarian, Wright, Linear Programming with MATLAB, SIAM, 2007
• Kelley, Iterative Methods for Optimization, SIAM, 1999
• Dennis & Schnabel, Numerical Methods for Unconstrained Optimization and Nonlinear Equations, SIAM, 1996

Hard-copy books available through the library include:
• Griva, Nash & Sofer, Linear and Nonlinear Optimization, SIAM, 2009
• Nocedal & Wright, Numerical Optimization, Springer, 2006
• Puterman, Markov Decision Processes, Wiley, 2005
• Boyd & Vandenberghe, Convex Optimization, Cambridge, 2004
• Spall, Introduction to Stochastic Search and Optimization, Wiley, 2003
• Wolsey & Nemhauser, Integer and Combinatorial Optimization, Wiley 1999
• Cook, Cunningham, Pulleyblank, & Schrijver, Combinatorial Optimization, Wiley, 1997
• Bertsekas, Linear Network Optimization, MIT Press, 1991
• Fletcher, Practical Methods of Optimization, Wiley, 1987
• Chvátal, Linear Programming, Freeman, 1983

Evaluation: A suggested grading scheme would consist of:

• Assignments: 30%. One assignment every 2-3 weeks, including analysis and programming components.
- Final project: 20%. Each student will prepare both a written final project and an oral presentation, to be given on the last day of class, on a topic relevant to the course and their own interests. Each component (written and oral) is worth 10% of the final grade.

- Final exam: 50%. The final exam will be composed of both a written and oral component. The written and oral components will be scheduled by the department during the formal final exam period.
Request for Approval of a Graduate Course

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

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

Course No.: COMP 6907

Course Title: Data Mining Techniques and Methodologies

I. To be completed for all requests:

A. Course Type:
   ☑ Lecture course
   ☐ Laboratory course
   ☐ Directed readings
   ☐ Lecture course with laboratory
   ☐ Undergraduate course
   ☐ Other (please specify) Project

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

D. Credit hours for this course: 3

E. Estimated number of contact hours per semester: 48

F. Course description (reading list required):
   See attached pages (2)

G. Method of evaluation:

   Written Percentage Oral

   Class tests 30
   Assignments 30
   Other (specify): Project 40
   Final examination:

   Total 100

1 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:

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

Recommended for offering in the

- [ ] Fall
- [ ] Winter
- [ ] Spring 20__

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

[Signature]

May 4, 2016

Date

Approval of the head of the academic unit

[Signature]

May 4, 2016

Date

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

Secretary, Faculty/School/Council

Date

Updated October 2011
Modified Version of COMP 6907

Data Mining Techniques and Methodologies

Students interested:

Graduate students with basic data mining knowledge who are interested in learning more advanced methodologies.

Rationale:

The field of data mining/machine learning has been studied extensively in decades. In recent years, due to its significance in practical applications, mining complex data type has drawn tremendous attention from data mining/machine learning community. Introducing these new approaches and how they are built on top of basic methodologies is both necessary and beneficial to graduate students.

Course objectives/description

This course introduces common techniques and methodologies underlying knowledge discovery and data mining. It covers fundamental topics, as well as advanced materials that are of the major interests in the field. Both theoretical aspects and algorithmic approaches are described. The course is intended for the audiences who have limited exposure to the data mining/machine learning field, and are interested in gaining further knowledge and skills for practical applications.

Course outline

- Introduction to data mining tasks and types of data sets  (1 hour)
- OLAP and multidimensional data model  (3 hours)
- Association rule mining  (3 hours)
- Theory and practice for supervised learning  (3 hours)
- Feature selections  (2 hours)
- Fundamentals for clustering  (3 hours)
- Advanced topics
  - Clustering high dimensional data  (3 hours)
  - Graph clustering  (4 hours)
  - Methods for outlier detection  (2 hours)
  - Intrusion detection and prevention  (2 hours)
  - Mining time series and stream data  (4 hours)

Evaluation

- Assignments: 30%
- Mid-term: 30%
• Project: 40%

Textbook:

References:
Recently published papers.

Calendar Entry:
COMP6907: Investigating techniques and methodologies for mining data with both fundamental and complex types. Topics covered range from basic data mining methods to more advanced approaches. The course is appropriate for students who have basic knowledge and wish to gain further skills in the field.
To: Faculty of Science Graduate Studies Committee  
Attn: Gail Kenny

From: Dr. Chris Radford, Head, Department of Mathematics and Statistics

Subject: New Graduate Course: Math 6203, Nonlinear and Linear Optimization

Date: May 6, 2016

The department is submitting for approval a new course, Math 6203 - Nonlinear and Linear Optimization. The proposal including the Calendar language and necessary Calendar changes have been approved by a departmental meeting of the Department of Mathematics and Statistics.

Regards,

Dr. Chris Radford, Head

:imm

encl:
25.18.3 Courses
A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:
Mathematics
6100 Dynamical Systems
6101 Modern Perturbation Theory
6102 Mathematical Biology
6104 Infinite Dimensional Dynamical Systems
6110 Advanced General Relativity
6112-6119 Special Topics in Applied Mathematics
6120 Theoretical Fluid Dynamics
6121 Functional Differential Equations
6130 Introduction to General Relativity (credit restricted with former 6106)
6160 Partial Differential Equations (credit restricted with former 6109)
6201 Numerical Methods for Partial Differential Equations
6203 Nonlinear and Linear Optimization (credit restricted with COMP 6933)
6210 Numerical Solution of Differential Equations
6212 Numerical Methods for Initial Value Problems
6230 Differentiable Manifolds and Riemannian Geometry
6299 Masters Project

32.25.4 Courses
A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:
Mathematics
6100 Dynamical Systems
6101 Modern Perturbation Theory
6102 Mathematical Biology
6104 Infinite Dimensional Dynamical Systems
6110 Advanced General Relativity
6112-6119 Special Topics in Applied Mathematics
6120 Theoretical Fluid Dynamics
6121 Functional Differential Equations
6130 Introduction to General Relativity (credit restricted with former 6106)
6160 Partial Differential Equations (credit restricted with former 6109)
6201 Numerical Methods for Partial Differential Equations
6203 Nonlinear and Linear Optimization (credit restricted with COMP 6933)
6210 Numerical Solution of Differential Equations
6212 Numerical Methods for Initial Value Problems
6230 Differentiable Manifolds and Riemannian Geometry
Request for Approval of a Graduate Course

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

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

Course No.: Math 6203
Course Title: Nonlinear and Linear Optimization

I. To be completed for all requests:

A. Course Type:
   ☑ Lecture course
   ☐ Laboratory course
   ☐ Directed readings
   ☐ Lecture course with laboratory
   ☐ Undergraduate course
   ☐ 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. Credit hours for this course: 3

E. Estimated number of contact hours per semester: 36

F. Course description (reading list required):
   See attached.

G. Method of evaluation:

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<td>Other (specify):</td>
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<td>Final examination:</td>
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1 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
2. double credit
3. work that is a faculty research product
4. overlap with existing courses

Recommended for offering in the  □ Fall  □ Winter  □ Spring  20

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

[Signature]
Course instructor

[Signature]
Approval of the head of the academic unit

10 May 2016
Date

10 May 2016
Date

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

[Signature]
Secretary, Faculty/School/Council

Date

Updated October 2011
Math 6203: Nonlinear and Linear Optimization

Many problems in mathematics, computational science, statistics and engineering, may be posed as an optimization problem. These problems are categorized based on the linearity or nonlinearity of the objective function and constraints and the nature of the decision variables. The numerical algorithms designed to solve these problems may be deterministic or stochastic, gradient-based or derivative-free. This course is intended for graduate students in Mathematics, Computer Science, and other applied science and engineering disciplines where numerical optimization problems arise.

Objectives: This course will provide students with an overview of numerical approaches for linear and nonlinear optimization problems with a focus on theory, implementation and computation.

Prerequisites: Undergraduate linear algebra at the level of MATH2051, multivariable Calculus, experience with programming (Matlab, Python or R preferred), experience with computer simulation.

Tentative Outline:

1. Linear Optimization
   (a) Linear programming: problem formulation, the simplex method, duality, complexity, interior point methods
   (b) Network flows: maximum flows, minimum cuts. Ford-Fulkerson algorithm
   (c) Integer Linear Programming: branch and bound methods
   (d) Applications: transportation and shipping problems

2. Nonlinear Optimization
   (a) Derivative based methods for unconstrained optimization: optimality conditions, steepest descent, line search, Newton/Quasi-Newton approaches:
   (b) Derivative based methods for constrained Optimization: optimality conditions, feasible point methods, Lagrange multipliers, sequential quadratic programming, penalty and barrier methods
   (c) Derivative-free algorithms: co-ordinate search algorithms, genetic algorithms, particle swarm optimization

Library Resources: The following texts are either freely available online or as e-books through the library’s existing subscriptions:

- Beck, Introduction to Nonlinear Optimization, SIAM, 2014
- Locatelli & Schoen, Global Optimization, SIAM, 2013
• Conn, Scheinberg, Vicente, *Introduction to Derivative-Free Optimization*, SIAM, 2009
• Ferris, Mangasarian, Wright, *Linear Programming with MATLAB*, SIAM, 2007
• Kelley, *Iterative Methods for Optimization*, SIAM, 1999

Hard-copy books available through the library include:

• Boyd & Vandenberghe, *Convex Optimization*, Cambridge, 2004
• Chvátal, *Linear Programming*. Freeman, 1983

**Evaluation:** A suggested grading scheme would consist of:

• Assignments: 30%. One assignment every 2-3 weeks, including analysis and programming components.

• Final project: 20%. Each student will prepare both a written final project and an oral presentation, to be given on the last day of class, on a topic relevant to the course and their own interests. The written component is worth 15% of the final grade and the oral component is worth 5% of the final grade.
• Final exam: 50%. The final exam will be composed of both a written and oral component. The oral exam would be worth 20% of the final exam mark, so 10% of the final grade. The written and oral components will be scheduled by the department during the formal final exam period.
# Committees

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**FACULTY OF SCIENCE AWARDS COMMITTEE**
Tom Chapman (C), Christina Bottaro, Alison Malcolm

**REPRESENTATIVES FROM OTHER COUNCILS**

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<tr>
<th>COUNCIL</th>
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**STUDENT UNIONS REPRESENTATIVES TO FACULTY COUNCIL**

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Dean of Science Distinguished Teacher Award
(October 2016)

Nomination Deadlines

Month XX, 20XX  The completed nomination form and three letters of support must be submitted by the nomination coordinator.

Month XX, 20XX  The 5-page application document with a curriculum vitae, course syllabus, and up to 10 pages of appending documents must be submitted electronically by the nominee.

Nominations for this award can be made by students, alumni, faculty members or staff members. Self-nominations will not be considered.

One person must act as the Nomination Coordinator. The coordinator must ensure that the nomination is complete and must serve as the liaison between the nominee, the nomination supporters, and the Dean of Science Office.

Eligibility

Any current Academic Staff Member within the Faculty of Science of Memorial University may be nominated for the Dean of Science Distinguished Teacher Award, provided they have served for a minimum of five years and are not a former recipient of the award.

Questions of interpretation or application of award eligibility criteria and procedures shall be referred to the Dean of Science, whose decision will be final.

The Award

Recipients of the Dean of Science Distinguished Teacher Award will be honoured with the following:

1. $1,000 to be used by the recipient in support of teaching activities
2. Recognition and citation from the Dean of Science
Criteria

The Dean of Science Distinguished Teacher Award is given in recognition of a faculty member’s extended record of excellence in teaching. It is presented by the Dean of Science each year to a faculty member whose sustained commitment and creative approach to teaching has contributed to the improvement of the overall quality of teaching within the Faculty of Science. The nominee must provide evidence of outstanding achievement in teaching effectiveness through:

- **Curriculum Development:** Engages learners at appropriate levels of complexity. Aligns learning outcomes with instruction and assessment.

- **Instructional Approaches:** Approaches that provide authentic, engaging learning experiences using modern teaching practices. Examples of adjustments made to teaching and learning methods based on reflection and student feedback is an asset.

- **Integration of Research:** Evidence-based teaching that integrates seminal and current research findings. Integration of personal research into course content is an asset.

- **Professional Development:** Participation in formal and/or informal professional development. Contribution to a positive teaching and learning environment, educational leadership and/or educational scholarship is desirable.

Nomination Process

The following procedure should be followed by the nomination coordinator:

1. Print the Nomination Form:
   http://www.mun.ca/science/XXXXXXXX

2. Obtain the nominee’s acceptance of the nomination and have him/her sign the nomination form. Inform the nominee that acceptance of the nomination will require the self-submission of a current curriculum vitae and an application document.

3. Obtain the signatures of eight people who support the nomination.
   - At least four supporters must be current or former students of the nominee.
   - At least one supporter must be a faculty member of Memorial University. Included in this group are those with a term/contractual appointment, retired faculty members, and professors emeritus.
   - The nomination coordinator may be one of the supporting signatories and may provide a letter of support.
4. **Three** supporters **listed on the nomination form** must write **individual** letters of support.
   - **One** letter must be written by a current faculty member.
   - **Two** letters must be written by current or former students of the nominee.
   - Additional letters may be used to strengthen the application.
   - All letters of support should be current, should address award criteria, and should be professional in content, structure and format.
   - All letters of support should be **signed** and **dated**.
   - Letters should be specific and serve as an authentic, personal account of the influence the candidate has had on learning and/or professional growth.
   - If a nomination supporter is not available to sign the nomination form or letter, the nomination coordinator may include a copy of email correspondence along with an affidavit signed by the coordinator verifying submission of complete and unedited letters.
   - Letters are to be submitted with the nomination form as a single nomination package.

**Nomination Documents**

Nominees must submit **electronic pdf files** of the following two documents to the Dean of Science Office, deansci@mun.ca, on or before the submission deadline.

1. Main Application Document (maximum 5 pages)
2. Appendix A (no page limit)
   i. Curriculum vitae
3. Appendix B (no page limit)
   i. A course syllabus from a previously taught course
4. Optional additional Appendices (maximum 10 pages)
   i. Additional material to support information in the main application document

In preparing the application document, nominees are asked to adhere to the following format:

- 12-point font
- single line spacing
- one-inch page margins
- table of contents
- page numbers on all content pages
- up to five minutes of audio or video may be submitted in lieu of one page of content
- internet website addresses (URLs, QR codes) are not permitted

*Note that the table of contents, and any separator pages or fly sheets, will not be included in the overall page limit.*