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, February 20, 2013, at 1 p.m. in C-2045.

AGENDA (revised)

1. Regrets
2. Adoption of the Minutes of December 12, 2012
3. Business Arising from the Minutes
4. Correspondence
   a. Amrutha Paladin has been appointed as the new GSU representative on the Faculty of Science Faculty Council (memo, November 20, 2012).
5. Reports of Standing Committees:
   A. Undergraduate Studies Committees:
      b. Department of Biology, calendar change, paper 5.A.b (7 pages).
      c. Department of Biology, proposal for amended course, BIOL 4122, paper 5.A.c (7 pages).
      d. Response to Senate Committee on Undergraduate Studies, Approval for Common Courses, paper 5.A.d (10 pages).
      e. Response to Senate Committee on Undergraduate Studies, Review of Transfer Credit Evaluation, paper 5.A.e (5 pages).
   B. Graduate Studies Committee:
      a. Department of Biology, proposal for new course, BIOL 6131, paper 5.B.a (6 pages).
   C. Nominating Committee: None
   D. Library Committee: Report by John Lewis
6. Reports of Delegates from Other Councils
7. Faculty of Science Strategic Plan - Annual Approval, paper 7 (5 pages)
8. Report of the Dean
9. Question Period
10. Teaching and Learning Framework Update: Doreen Neville and Albert Johnson
11. Learning Activities Available for Faculty: Ruth Hickey, DE LTS, paper 11 (5 pages)
12. Adjournment

Mark Abrahams
Dean of Science
FACULTY OF SCIENCE
FACULTY COUNCIL OF SCIENCE
MINUTES OF MEETING OF DECEMBER 12, 2012

A meeting of the Faculty Council of the Faculty of Science was held on Wednesday, December 12, 2012, at 1:00 p.m. in room C-2004.

FSC 2148  Present
Chemistry
Pickup, P.

Computer Science
Banzhaf, W.    Peña-Castillo, L.

Earth Sciences
Layne, G.

Mathematics & Statistics
Loredo-Osti, J.  Pike, D.  Radford, C.  Sullivan, S.

Ocean Sciences
Fletcher, G.    Parrish, C.

Psychology
Martin, G.

Dean of Science
Abrahams, M.    Foss, K.    Foster, A.    Rideout, J.

Economics
Waples, J.

Geography
Catto, N.

DELTs
Hickey, R.

Education
Vaandering, D.
Engineering
Zhang, H.

Registrar's Office
Burry, J.

Undergraduate Students
Kennedy, S.

FSC 2149  Regrets
Yanqing Yi    Erin Alcock
Bill Schipper  John Lewis

FSC 2150  Adoption of Minutes
Moved: Minutes of the November 21, 2012, meeting be adopted as circulated (Loredo-Osti/Sullivan). Carried.

FSC 2151  Business Arising:
Presented by J. C. Loredo-Osti, Chair, Graduate Studies Committee.
The Registrar's Office requested that a course approved in last month's Council meeting, CMSC 6940, Computer Based Research Tools and Applications, be renumbered to avoid confusion. This has been done and the course has been renumbered to CMSC 6950.

FSC 2152  Correspondence: None

FSC 2153  Reports of Standing Committees:
A.  Undergraduate Studies Committee:
Report presented by Shannon Sullivan, Chair, Undergraduate Studies Committee.
   a.  Moved: Department of Biology, proposal for new program, Biology Co-operative Program (Sullivan/Marino). Carried.
   b.  Moved: Department of Biology, proposal to renumber Biology 4014 to Biology 3014 (Sullivan/Marino). Carried.
   c.  Moved: Department of Ocean Sciences, new course proposal, OCSC 1000 (Sullivan/Mercier). Carried.
   e.  Moved: Department of Chemistry, calendar changes to first year Chemistry courses (Sullivan/Pickup). Carried.
   f.  Moved: Department of Chemistry, calendar changes to Chemistry and Physics Joint Honours program (Sullivan/Pickup). Carried.
   g.  Moved: Department of Chemistry, new course proposal, Chemistry 4305, Advanced Statistical Thermodynamics (Sullivan/Pickup). Carried.
h. **Moved:** Department of Chemistry, new course proposal, Chemistry 4500, Advanced Nuclear Magnetic Resonance Spectroscopy (Sullivan/Pickup). **Carried.**

i. **Moved:** Department of Biochemistry, calendar changes (Sullivan/Loredo-Osti). **Carried.**

j. **Moved:** Proposal to amend Faculty of Science Calendar Regulation 5.5.3, restrictions on honours theses (Sullivan/Foster). Clarification was requested about whether there was a time limit on the restriction but this will be at the discretion of the Department Head. **Carried.**

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

a. **Moved:** Department of Biology, Biology graduate course changes (Loredo-Osti/Marino). **Carried.**

b. **Moved:** Department of Ocean Sciences, calendar changes for the Ocean Sciences Graduate Marine Biology Program (Loredo-Osti/Fletcher). **Carried.**

c. **Moved:** Interdisciplinary Programs, calendar changes to the Co-operative Education Option for Computational Science (Loredo-Osti/Plumer). **Carried.**

d. **Moved:** Interdisciplinary Programs, Cognitive and Behavioural PhD, calendar changes (Loredo-Osti/Martin). **Carried.**

e. **Moved:** Department of Biochemistry, calendar changes to the examination format in the Food Science PhD Program (Loredo-Osti/Marino). **Carried.**

f. Department of Chemistry, special topics course, CHEM 6385, Special Topics in Advanced NMR Spectroscopy, approved by the Committee and included for information only.

g. Department of Mathematics and Statistics, special topics course, MATH 6347, Topics in Cyclic Combinatorial Designs, approved by the Committee and included for information only.

C. **Nominating Committee:** None

D. **Library Committee:** None

**FSC 2154**  Reports of Delegates from Other Councils: None

**FSC 2155**  Report of the Dean:
Presented by Dr. Mark Abrahams, Dean.

**Science Building Update**
The functional space planning analysis is now underway and is expected to be complete in the new year. This will provide more precise information on the
building size requirements, fundamental planning and layout, and more precise costs of construction. Once that process is complete, the Dean expects that tenders will go out for architectural planning.

Budget Updates
The Dean and other Deans on campus are now involved in a series of meetings with the VPA office to implement and work with the new position based budgeting model. This is still very much a work in progress.

Centralized Science Stores
The Dean understands that a number of concerns have been raised associated with the implementation of centralized chemical storage and the new chemical inventory system. However, the goal of the exercise is to create a safer work environment while simultaneously obtaining some efficiencies by combining stores. We will be holding an information town hall in January to provide individuals with the opportunity to express their concerns and ask questions of those involved in implementing this new system.

Happy Holidays and the best for the New Year!

FSC 2156 Question Period
The Dean was not able to confirm the chosen location of the new Science building as the university wishes to make the announcement in a formal manner to the entire university community simultaneously. The Dean was asked if he could divulge whether there would be one or two buildings, but this information is not known at this time.

There is concern that Department Heads will be asked to provide input to the functional space planning process without knowing where the building will be placed, but the Dean assured faculty members they will have further information before they are required to provide input.

FSC 2157 Adjournment:
The meeting adjourned at 1:26 p.m.
Hi Mary,
I would like to inform you that Amrutha Paladugu (communications@gsumun.ca) will be the new GSU rep. in these committees:

Science Faculty Council
  Graduate Studies Committee (sub-committee of Science Faculty Council)

Thanks
Hisham Sleem
GSU-VP-Academic
February 4, 2013

TO: All Members, Faculty Council of Science

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

SUBJECT: New Course Proposal and Calendar Changes to Existing Courses

At a meeting held on January 22, 2013, the Undergraduate Studies Committee of the Faculty of Science agreed that the following items be forwarded to Faculty Council for approval:

1. Department of Ocean Sciences- New Course Proposal, OCSC 3002

2. Department of Biology
   (i) Proposal to change the prerequisite for Biology 3715
   (ii) Proposal to amend the title and description for Biology 4122

Joan Burry
Assistant Registrar and
Secretary: Committee
on Undergraduate Studies,
Faculty of Science
Proposal
New Course(s)

OCSC 3002 – Aquaculture and Fisheries Biotechnology

RESOURCE IMPLICATIONS:

This course will utilize teaching resources currently available in the Department of Ocean Sciences.

Instructional Costs

Since this course will be taught by existing Department of Ocean Sciences faculty members, no additional instructional costs are required.

Library Holdings and/or Other Resources Required

Existing Memorial University library holdings are adequate to support this new course (please see attached summary of library holdings).

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

Signature of Unit Head (if appropriate):

_______________________________

Date:

_______________________________

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

_______________________________

Date:

_______________________________
Course Number and Title: OCSC 3002 – Aquaculture and Fisheries Biotechnology

Abbreviated Course Title: Aquaculture Fisheries Biotech

Calendar Description

Aquaculture and Fisheries Biotechnology is an introduction to biotechnology and genetics as they are applied to aquaculture and fisheries. Topics covered include genetic variation, genetic structure of fish and shellfish populations, the genetic basis of aquaculture traits, finfish and shellfish genomic research, marker-assisted selection in aquaculture, manipulation of ploidy, genetic engineering in aquaculture, and techniques used to study the responses of aquatic animals to external stressors such as hypoxia, temperature stress, acidification, and pathogens.

PR: Biology 2250, 2060

Secondary Changes (if applicable)
Not applicable.

Rationale

The Ocean Sciences Centre was recently granted the status of Department of Ocean Sciences. The proposed course will be one of four new compulsory courses for the Minor in Aquaculture and Fisheries (one of the new interdisciplinary minor programs to be administered by the Department of Ocean Sciences). Due to the importance of biotechnology in aquaculture and fisheries research, the proposed course is an essential component of the new Minor program. The new course will include information on biotechnology as it is applied to aquaculture and fisheries. Background theory on techniques [e.g. microsatellite and single nucleotide polymorphism (SNP) genotyping used to study the genetic structure of fish and shellfish populations; microarrays, RNA sequencing, and other techniques to study the genetic basis of aquaculture traits or the impact of stressors on aquatic organisms; production of reproductively sterile triploids; generation of transgenic fish] will be provided in lecture format. The lectures will be based primarily on the content of the text (Biotechnology and Genetics in Fisheries and Aquaculture, Second Edition; Andy Beaumont et al. 2010) and augmented by relevant peer-reviewed literature. Open Access papers in peer-reviewed journals that demonstrate the application of various biotechniques in aquaculture or fisheries research will be placed in “Course Content” on the D2L web site as assigned reading, and students will be required to write a summary on one of these papers every two weeks. Since this course will focus on aquaculture and fisheries biotechnology, it will have minimal (less than 20%) overlap with other courses (e.g. Genomics) offered at Memorial University. There is currently no other course at Memorial University that focuses on the theory and application of biotechnology as it pertains to aquaculture and fisheries research.
Consultations (feedback received from bolded departments/campuses)

1. St. John's campus:
   1a. Department of Biology (see attached email response)
   1b. Department of Physics and Physical Oceanography
   1c. Department of Chemistry
   1d. Department of Biochemistry
   1e. Department of Earth Sciences
   1f. Department of Geography

2. Marine Institute

3. Grenfell campus
Course Outline and Method of Evaluation

Biotechnology has had, and continues to have, a profound influence on aquaculture and fisheries research. This course will build on the foundation of introductory courses in genetics and cell biology, and provide students with information on the theory and application of biotechnology to the study of farmed and wild aquatic organisms. Aquaculture and Fisheries Biotechnology (OCSC 3002) is a lecture-based course. Topics covered include: genetic variation (including a brief review of the principles of genetics); genetic structure of fish and shellfish populations; the genetic basis of aquaculture traits (including qualitative and quantitative traits); an introduction to finfish and shellfish genomic research; marker-assisted selection in aquaculture; manipulation of ploidy; genetic engineering in aquaculture; techniques used to study the responses of aquatic animals to different diets, vaccines, therapeutics, or external stressors (e.g. temperature stress, handling stress, acidification, hypoxia, pollutants, and pathogens); and ethical issues that may be associated with aquaculture biotechnology. Background theory on techniques (e.g. microsatellite and SNP genotyping used to study the genetic structure of fish and shellfish populations; microarrays and other tools for studying the genetic basis of aquaculture traits or the impact of stressors on aquatic organisms; production of reproductively sterile triploids; generation of transgenic organisms) will be provided in lectures. The lectures will be based primarily on the content of the text (Biotechnology and Genetics in Fisheries and Aquaculture, Second Edition; Andy Beaumont et al. 2010). In addition, Open Access papers in peer-reviewed journals that demonstrate the application of biotechnology in aquaculture or fisheries research will be placed in “Course Content” on the Desire 2 Learn (DELT) web site as assigned reading, and students will be required to write a summary on one of these papers every two weeks. This course has 3 hours of lecture per week.

Course Number and Title

OCSC 3002 – Aquaculture and Fisheries Biotechnology

Aquaculture and Fisheries Biotechnology (OCSC 3002) is a lecture-based course. The lectures will be based on the content of the text (Biotechnology and Genetics in Fisheries and Aquaculture, Second Edition; Andy Beaumont et al. 2010) and augmented by relevant peer-reviewed literature.

During each week of the semester, we will cover one topic from the text and/or assigned readings. Topics to be covered include:

Week 1: Genetic variation (including a brief review of the principles of genetics);
Week 2: Techniques used to measure genetic variation (e.g. microsatellite and SNP genotyping);
Week 3: Genetic structure of fish and shellfish populations;
Week 4: The genetic basis of aquaculture traits: qualitative and quantitative traits;
Week 5: Midterm Exam 1; an introduction to finfish and shellfish genomic research;
Week 6: Finfish and Shellfish applications of genomic research;
Week 7: Marker-assisted selection in aquaculture;
Week 8: Manipulation of ploidy in aquaculture (e.g. production of reproductively sterile triploid fish);
Week 9: Genetic engineering in aquaculture (e.g. generation of transgenic organisms);
Week 10: Next-generation sequencing applications in fisheries and aquaculture research;
Week 11: Midterm Exam 2; an introduction to aquaculture and fisheries functional genomics;
Week 12: Techniques used to study the responses of aquatic animals to different diets, vaccines, therapeutics, or external stressors (e.g. temperature stress, handling stress, acidification, hypoxia, pollutants, and pathogens);
Week 13: Other topics in marine biotechnology; ethical issues that may be associated with aquaculture biotechnology;
Final Exam.

Background theory on research techniques will be provided in lecture format. The lectures will be based primarily on the content of the text (Biotechnology and Genetics in Fisheries and Aquaculture, Second Edition; Andy Beaumont et al. 2010). In addition, Open Access papers in peer-reviewed journals that demonstrate the application of biotechnology in aquaculture or fisheries research will be placed in “Course Content” on the D2L web site as assigned reading. Each student will be required to write a summary of one of these published papers every two weeks (see “6 assignments” below). Each student must work independently on these written summaries; they are not group assignments. Approximately one week before the deadline for each assignment, the techniques involved in the published paper will be discussed within a normal lecture time slot. Students will be encouraged to have read the paper prior to this class period so that they can participate in the discussion and ask for clarification if needed.

Evaluation
Midterm Exam 1 (in Week 5): 20%
Midterm Exam 2 (in Week 10): 20%
Comprehensive Final Exam: 30%
6 assignments (5% each): 30%

The Text for this course is:
Title: Biotechnology and Genetics in Fisheries and Aquaculture, Second Edition
Authors: Andy Beaumont, Pierre Boudry, and Kathrin Hoare
Year of publication: 2010
Length of text book: 202 pages
Publisher: Wiley-Blackwell

Instructor
Matthew L. Rise, Ph.D.
Associate Professor, Department of Ocean Sciences (Cross-appointed to Department of Biology)
Canada Research Chair (tier 2) in Marine Biotechnology, Memorial University of Newfoundland
Telephone: 709-864-7478 (office); Email: mrise@mun.ca
SUMMARY PAGE FOR SENATE

Approval Form

Course Title and Number: OCSC 3002 – Aquaculture and Fisheries Biotechnology

Abbreviated Course Title: Aquaculture Fisheries Biotech

Calendar Description:

Aquaculture and Fisheries Biotechnology is an introduction to biotechnology and genetics as they are applied to aquaculture and fisheries. Topics covered include genetic variation, genetic structure of fish and shellfish populations, the genetic basis of aquaculture traits, finfish and shellfish genomic research, marker-assisted selection in aquaculture, manipulation of ploidy, genetic engineering in aquaculture, and techniques used to study the responses of aquatic animals to external stressors such as hypoxia, temperature stress, acidification, and pathogens.

PR: Biology 2250, 2060

Secondary Changes: Not applicable.

Rationale

The Ocean Sciences Centre was recently granted the status of Department of Ocean Sciences. The proposed course will be one of four new compulsory courses for the Minor in Aquaculture and Fisheries (one of the new interdisciplinary minor programs to be administered by the Department of Ocean Sciences). Due to the importance of biotechnology in aquaculture and fisheries research, the proposed course is an essential component of the new Minor program. The new course will include information on biotechnology as it is applied to aquaculture and fisheries. Background theory on techniques [e.g. microsatellite and single nucleotide polymorphism (SNP) genotyping used to study the genetic structure of fish and shellfish populations; microarrays, RNA sequencing, and other techniques to study the genetic basis of aquaculture traits or the impact of stressors on aquatic organisms; production of reproductively sterile triploids; generation of transgenic fish] will be provided in lecture format. The lectures will be based primarily on the content of the text (Biotechnology and Genetics in Fisheries and Aquaculture, Second Edition; Andy Beaumont et al. 2010) and augmented by relevant peer-reviewed literature. Open Access papers in peer-reviewed journals that demonstrate the application of various biotechniques in aquaculture or fisheries research will be placed in “Course Content” on the D2L web site as assigned reading, and students will be required to write a summary on one of these papers every two weeks. Since this course will focus on aquaculture and fisheries biotechnology, it will have minimal (less than 20%) overlap with other courses (e.g. Genomics) offered at Memorial University. There is currently no other course at Memorial University that focuses on the theory and application of biotechnology as it pertains to aquaculture and fisheries research.
Consultations Sought From

1. St. John's campus:
   1a. Department of Biology
   1b. Department of Physics and Physical Oceanography
   1c. Department of Chemistry
   1d. Department of Biochemistry
   1e. Department of Earth Sciences
   1f. Department of Geography

2. Marine Institute
3. Grenfell campus

Comments Received
Department of Biology

Library Report Received

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

Yes/No

Name

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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair: ____________________________________________

Secretary: _________________________________________

Date: _____________________________________________
21 January 2013

To: Garth Fletcher & Matthew Rise, Department of Ocean Sciences

From: Erin Alcock, Science Research Liaison Librarian

Subject: New Course Proposal, OCSC 3002

Upon review of the new course proposal for OCSC 3002 – Aquaculture and Fisheries Biotechnology, I have determined that Memorial University Library system does have sufficient resources to support the objectives of this course.

The summary of library holdings below indicates numerous appropriate monograph titles, held both in the Queen Elizabeth II Library and the C.R. Barrett Library, as well as, more than sufficient coverage from article indexes. In addition to those items, MUN Libraries currently provides access to more than 200 periodical titles on the subject of aquaculture and as many as 1300 about fisheries. Any additional resources could be purchased under existing budget allocations for biology, physics and physical oceanography, the Marine Institute Library and other appropriate funds.
Library Holdings Summary

Table One: General Course Subject Themes

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<tr>
<th>Course Topic</th>
<th>LCSH</th>
<th>Keywords</th>
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</thead>
<tbody>
<tr>
<td>Biotechnolog$ AND aquaculture</td>
<td>13</td>
<td>53</td>
</tr>
<tr>
<td>Biotechnolog$ AND fisher$</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>Genetic$ AND aquaculture</td>
<td>14</td>
<td>93</td>
</tr>
<tr>
<td>Genetic$ AND fisher$</td>
<td>23</td>
<td>252</td>
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</table>

*as of date of memo

Table Two: Selected Article Indexes and Databases

<table>
<thead>
<tr>
<th>Article Indexes and Databases</th>
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<tbody>
<tr>
<td>ASFA: Aquatic Science and Fisheries Abstracts</td>
</tr>
<tr>
<td>Biological Abstracts</td>
</tr>
<tr>
<td>CAB Abstracts</td>
</tr>
<tr>
<td>Scopus</td>
</tr>
<tr>
<td>Web of Science</td>
</tr>
</tbody>
</table>
Hi Matt: Here is Karen's feedback on your course proposal.

Regards

Garth

From: Karen Morris [mailto:morrisk@mun.ca]
Sent: January 24, 2013 9:06 AM
To: Fletcher, Garth
Subject: Re: FW: New course OCSC 3002

Hi Garth,
The Biology Undergraduate Studies Committee, at its meeting of January 22, reviewed the new course proposal OCSC 3002 - Aquaculture and Fisheries Biotechnology.
Overall the committee's response was positive and all felt that the course may be of interest to our students possibly as a precursor to Biology 4251 - Genomics.
Regarding the course proposal a few minor points:
Page 2 - under Calendar description you do not need to list LH (as there are none).
Page 5 - in the paragraph before Evaluation it reads: "Each student will be required to write a summary of one of these published papers every two weeks....". Will there be any peer interaction/discussion of these papers prior to submission of each assignment?

There was some discussion as to the possibility of having the program proposal alongside the new course proposals so the committee can see the bigger picture. If this is not possible maybe the rationale could be modified to indicate content for the two minors.

The final concerns are outside the review of the course proposal but may affect the running of the Biology program as the course Instructor also teaches in the Biology program. How often and in what term (s) will the proposed course be offered?

Thanks
Karen

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

------Original Message------
From: Fletcher, Garth
Sent: December 19, 2012 4:27 PM
To: Brad de Young; Chris Radford, Math & Stats; Ian Neath; John Manchar, Earth Sciences; Marino, Paul; Peter Pickup, Chemistry; Phil Davis, Biochemistry; Wolfgang Banzhaf, Computer Science
Cc: Foster, Andy; Fletcher, Garth
Subject: New course OCSC 3002

Colleagues: I have attached Matt Rise's proposal to develop a new course in Aquaculture and Fisheries Biotechnology (OCSC 3002). Could you please provide feedback to me on this proposal by the end of January.

Best regards and Merry Christmas.

Garth

Garth L. Fletcher
Head, Department of Ocean Sciences
Phone: 864-3276
fletcher@mun.ca

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February 4, 2013

TO: All Members, Faculty Council of Science

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

SUBJECT: New Course Proposal and Calendar Changes to Existing Courses

At a meeting held on January 22, 2013, the Undergraduate Studies Committee of the Faculty of Science agreed that the following items be forwarded to Faculty Council for approval:

1. Department of Ocean Sciences- New Course Proposal, OCSC 3002
2. Department of Biology
   (i) Proposal to change the prerequisite for Biology 3715
   (ii) Proposal to amend the title and description for Biology 4122

Joan Burry
Assistant Registrar and Secretary, Committee on Undergraduate Studies, Faculty of Science
Calendar Change to Biology 3715 Ecology and Evolution of Fishes

Course Number and Title
Biology 3715 Ecology and Evolution of Fishes

Proposed Change(s) to Calendar Description

Existing:

3715
Ecology and Evolution of Fishes

(same as the former BIOL 4600) examines the evolutionary history and ecology of the world’s fishes, with particular emphasis on those of ecological, economical and cultural importance to Eastern Canada. Topics will include taxonomy, life histories, behaviour, zoogeography, evolutionary ecology, population biology, contemporary evolution, and conservation biology.

CR: the former BIOL 4600
LH: 3
PR: BIOL 2210, 2600 and 2900

Proposed:

3715
Ecology and Evolution of Fishes

(same as the former BIOL 4600) examines the evolutionary history and ecology of the world’s fishes, with particular emphasis on those of ecological, economical and cultural importance to Eastern Canada. Topics will include taxonomy, life histories, behaviour, zoogeography, evolutionary ecology, population biology, contemporary evolution, and conservation biology.

CR: the former BIOL 4600
LH: 3
PR: BIOL 2600 and 2900

Rationale for Change(s)
The calendar description for Biol3715 (Ecology & Evolution of Fishes):

This course examines the evolutionary history and ecology of the world’s fishes, with particular emphasis on those of ecological, economical and cultural importance to Eastern Canada. Topics will include taxonomy, life histories, behaviour, zoogeography, evolutionary ecology, population biology, contemporary evolution, and conservation biology.
The calendar description for Biol2210 (Vertebrate Biology):
*Biology of vertebrates is a study of the vertebrates, with emphasis on structure and function, adaptations and life histories.*

Much of 2210 focuses on non-fish vertebrates, taxa and topics which are not relevant for 3715. The portion of 2210 on adaptation and life history of fishes is addressed from the beginning and then in more detail in 3715. Students do not need to have this knowledge in advance.

2210 is currently a PR for 3715 because many years ago it was a core course that all Biology majors had to take. Removing it as a PR will allow students who have not taken Vertebrate Biology, but are interested in ecology or evolution, to take Ecology and Evolution of Fishes.

Biol2210 is not needed for Biol3715. For comparison with other second/third year courses; Biol2210 is not needed for Biol3202 (Comparative Vertebrate Anatomy), and Biol2122 (Invertebrate Biology) is not needed for Biol3300 (Introductory Entomology).

**Consultations:**
Science, Grenfell Campus
MUN Library

**Library Holdings and/or Other Resources Required**

No changes

The costs, if any, associated with this change/these changes can be met from within the existing budget allocation for Department of Biology

Signature of Unit Head (if appropriate):  

Date:

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

Date:
Course Title and Number:
Ecology and Evolution of Fishes Biology 3715

Abbreviated Course Title
Ecology and Evolution of Fishes

Calendar Description Change(s)
Removal of Biology 2210 as a prerequisite.

Rationale
The calendar description for Biol3715 (Ecology & Evolution of Fishes): *This course examines the evolutionary history and ecology of the world’s fishes, with particular emphasis on those of ecological, economical and cultural importance to Eastern Canada. Topics will include taxonomy, life histories, behaviour, zoogeography, evolutionary ecology, population biology, contemporary evolution, and conservation biology.*

The calendar description for Biol2210 (Vertebrate Biology):
*Biology of vertebrates is a study of the vertebrates, with emphasis on structure and function, adaptations and life histories.*

Much of 2210 focuses on non-fish vertebrates, taxa and topics which are not relevant for 3715. The portion of 2210 on adaptation and life history of fishes is addressed from the beginning and then in more detail in 3715. Students do not need to have this knowledge in advance.

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Biol2210 is not needed for Biol3715. For comparison with other second/third year courses; Biol2210 is not needed for Biol3202 (Comparative Vertebrate Anatomy), and Biol2122 (Invertebrate Biology) is not needed for Biol3300 (Introductory Entomology).

Consultations Sought From
Science, Grenfell Campus

Comments Received
No

Library Report Received
Yes

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

Name
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APPROVAL GRANTED BY SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Chair: ____________________________________________

Secretary: _________________________________________

Date: ______________________________________________
Subject: Proposed Course Changes Biology 4122 and 3715
From: Karen Morris <morrisk@mun.ca>
Date: 09/11/2012 12:03 PM
To: "Campbell, Christine" <ccampbel@swgc.mun.ca>

Hi Christine,
Attached please find two Proposals for Amended Courses.
1. Biology 3715 Ecology and Evolution of Fishes the change being the removal of Biology 2210 from the prerequisites for the course
2. Biology 4122 Advanced Topics in Marine Invertebrates title change to Advanced Studies in Marine Animal Diversity and minor wording changes in the calendar description.
The proposed changes were approved by the Biology department at a meeting held November 7.

Could you please review the amendments and let me now if you have any concerns.

Many thanks
Karen

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

Attachments:
2012 Course_change_BIOL4122.doc 59.5 KB
2012 Biol 3715 course changes.docx 16.5 KB
9 January 2013

To: Karen Morris, Department of Biology

From: Erin Alcock, Science Research Liaison Librarian

Subject: Calendar Change to Biology 3715: Ecology and Evolution of Fishes

The subject of this course has been an area of high importance to the MUN Library collection for decades. The proposed calendar changes will have very little impact on the library.
February 4, 2013

TO: All Members, Faculty Council of Science

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

SUBJECT: New Course Proposal and Calendar Changes to Existing Courses

At a meeting held on January 22, 2013, the Undergraduate Studies Committee of the Faculty of Science agreed that the following items be forwarded to Faculty Council for approval:

1. Department of Ocean Sciences- New Course Proposal, OCSC 3002

2. Department of Biology
   (i) Proposal to change the prerequisite for Biology 3715
   (ii) Proposal to amend the title and description for Biology 4122

Joan Burry
Assistant Registrar and
Secretary, Committee on Undergraduate Studies,
Faculty of Science
Proposal for Amended Course
BIOL 4122

RESOURCE IMPLICATIONS

Instructional Costs

None.

Library Holdings and/or Other Resources Required


The costs associated with new program/course(s) can be met from within the existing budget allocation for the Faculty of Science.

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

________________________________________

Date:

________________________________________
Proposal for Amended Course  BIOL 4122

AMENDED COURSE

Resource Implications

Unchanged.

Executive Summary

Approval is being sought to change the course title and to amend the calendar description in order to reflect the course contents more adequately and to make it accessible to a larger number of students.

Rationale

The request is to change the title and description of the course to something more representative and more enticing. Of the ~34 animal phyla, 33 are invertebrate phyla, 30 of which have marine representatives. Adding to this the fact that the course also touches on phylum Chordata (urochordates, fishes, marine mammals), it covers the entire marine animal diversity. This is a fact that most students probably do not realize from the current title of the course (Advanced Topics in Marine Invertebrates). It is therefore proposed to change the title to Advanced Studies in Marine Animal Diversity, with a slightly revised calendar description.

The language pertaining to course delivery would also be modified in order to make it more accessible to a larger number of students. The course could either be delivered as it has been in the past or as a two-week field course that embodies equivalent instructional time. This would take place at the Ocean Sciences Centre in Logy Bay, therefore providing an opportunity for a field-type condensed course close to campus (i.e. at no additional cost to students).

Course Number and Title

BIOL 4122—Advanced Topics in Marine Invertebrates
BIOL 4122 - Advanced Studies in Marine Animal Diversity

Calendar Description

4122—Advanced Topics in Marine Invertebrates provides an in-depth examination of physiological, ecological and behavioural adaptations in marine invertebrates. Lectures will be combined with discussions of relevant papers from the primary literature on topics of current interest, which may relate to functional morphology, ecology, evolution and natural history. Students will also gain practical research experience through the study of live and preserved animals.
Proposal for Amended Course  BIOL 4122

LH: 3

4122 Advanced Studies in Marine Animal Diversity provides an in-depth examination of cellular, physiological, behavioural and ecological adaptations in marine animals. Lectures will be combined with discussions of relevant papers from the primary literature on topics of current interest, which may relate to morphology, ecology, evolution, natural history, species interactions and practical applications. Students will also gain hands-on experience by designing and conducting research projects involving live or preserved animals.

LC: either three hours of lecture and three hours of laboratory per week or a two-week intensive course that embodies equivalent instructional time

LH: either three hours of lecture and three hours of laboratory per week or a two-week intensive course that embodies equivalent instructional time

PR: BIOL 2122, 2600 and 2900

Course Outline and Method of Evaluation

Unchanged.

Texts

Unchanged.

Library Holdings and/or Other Resources

Unchanged.

Instructor(s)

Unchanged.
Proposal for Amended Course  BIOL 4122

SUMMARY PAGE

Approval Form for Course Changes

Course Title and Number

Advanced Studies in Marine Animal Diversity - BIOL 4122

Calendar Description

4122 Advanced Studies in Marine Animal Diversity provides an in-depth examination of cellular, physiological, behavioural and ecological adaptations in marine animals. Lectures will be combined with discussions of relevant papers from the primary literature on topics of current interest, which may relate to morphology, ecology, evolution, natural history, species interactions and practical applications. Students will also gain hands-on experience by designing and conducting research projects involving live or preserved animals.

Rationale

The request is to change the title and description of the course to something more representative and more enticing. Of the ~34 animal phyla, 33 are invertebrate phyla, 30 of which have marine representatives. Adding to this the fact that the course also touches on phylum Chordata (urochordates, fishes, marine mammals), it covers the entire marine animal diversity. This is a fact that most students probably do not realize from the current title of the course (Advanced Topics in Marine Invertebrates). It is therefore proposed to change the title to Advanced Studies in Marine Animal Diversity, with a slightly revised calendar description.

The language pertaining to course delivery would also be modified in order to make it more accessible to a larger number of students. The course could either be delivered as it has been in the past or as a two-week field course that embodies equivalent instructional time. This would take place at the Ocean Sciences Centre in Logy Bay, therefore providing an opportunity for a field-type condensed course close to campus (i.e. at no additional cost to students).

Consultations Sought From

1. Science, Grenfell Campus

Comments Received

No

Library Report Received

Yes

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: ____________________________
9 January 2013

To:       Karen Morris, Department of Biology
From:     Erin Alcock, Science Research Liaison Librarian
Subject:  Biology 4122 – Amended course description

The MUN Library system has more than sufficient resources to support student taking this course and studying in this area. The library holdings mentioned in the proposal are among more than 700 items on the topic of marine invertebrates. The course and description change will have little impact on the library.
February 5, 2013

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: Approval for Common Courses

At a meeting held on January 22, 2013, the Undergraduate Studies Committee of the Faculty of Science considered the proposal put forth by the Senate Committee on Undergraduate Studies that courses common to both the St. John’s and Grenfell campuses should require approval by the relevant Faculty Council on the St. John’s campus and the Academic Council of Grenfell Campus before being considered by the Senate Committee on Undergraduate Studies. The current practice is that evidence of consultation must be presented.

During discussion, the Committee noted that this proposal would add another level of bureaucracy to the already slow process for developing new courses. As to “common” courses, members expressed concern that courses developed by departments on the St. John’s campus can be taught at Grenfell and appear in the Grenfell section of the Calendar without any approval or consultation with the relevant St. John’s department and without any evidence that the necessary teaching and library resources are available.

Recommendation:

The Undergraduate Studies Committee of the Faculty of Science recommends that this proposal be rejected. It further recommends that policies be developed to govern how and when courses should become common to both campuses.

Joan Burry
Assistant Registrar and
Secretary: Committee
on Undergraduate Studies,
Faculty of Science

JB/wem
1 February 2013

TO: Secretaries, Academic Councils
    Faculties of Business Administration and Science and Grenfell Campus

FROM: Jennifer Porter, Secretary
      Senate Committee on Undergraduate Studies (Acting)

SUBJECT: Approval of Calendar Changes - Courses Common to the St. John’s and Grenfell Campuses

____________________________________________________________________________________

I refer to a memorandum dated 9 November 2012 regarding the above. To date, no reply has been received from Academic Councils, Faculties of Business and Science and Grenfell Campus.

I am writing now to advise that the Senate Committee on Undergraduate Studies is seeking your response at your earliest possible convenience.

A copy of the memorandum concerned and relevant documentation is enclosed for your information.

Jennifer Porter
Deputy Registrar and
Secretary to the Committee (Acting)

Enclosure

cc: Chairs, Committee on Undergraduate Studies
    Faculties of Business Administration and Science

    Chair, Academic Studies Committee
    Grenfell Campus
9 November 2012

TO: Academic Councils
    Faculties of Arts, Business, Science and Grenfell Campus

FROM: S. M. Singleton, Former Secretary
     Senate Committee on Undergraduate Studies

SUBJECT: Approval of Calendar Changes - Courses Common to the St. John's and Grenfell Campuses

At a meeting held on 21 June 2012, the Senate Committee on Undergraduate Studies engaged in a discussion regarding proposed calendar changes to existing courses that are common to both the St. John's and Grenfell Campuses as well as proposals to introduce new courses that would be common to both campuses. As you are aware, when calendar changes of this nature are submitted for the approval of the Senate Committee on Undergraduate Studies, only evidence of consultation between the two campuses is required. At the same time, it has been a longstanding practice that proposed calendar changes from the Departments of Computer Science, Economics, Geography, Mathematics and Statistics, and Psychology must be approved by the Academic Councils of both the Faculties of Arts and Science.

Recognizing that responsibility for shared courses rests with both academic units, the Senate Committee on Undergraduate Studies recommended to Senate that, with the exception of courses in Business Administration, calendar changes to existing courses that are common to both the St. John's and Grenfell Campuses and proposals to introduce new courses that would be common to both campuses be approved by the Academic Councils of the Faculties of Arts or Science (as appropriate) on the St. John's Campus and the Academic Council, Grenfell Campus, before being considered by the Senate Committee on Undergraduate Studies.

At a meeting held on 25 September 2012, Senate approved a request that the Senate Committee on Undergraduate Studies consult with Academic Councils, Faculties of Arts, Business, and Science and Grenfell Campus, regarding this matter.

I am now forwarding this matter to you for your consideration and ask that you reply at your earliest possible convenience. For further information, please refer to the enclosed excerpt from the Senate Minutes of 25 September 2012.

Sheila M. Singleton
Former Deputy Registrar and
Secretary to the Committee

SMS/lmn

Attachment
General Academic Regulation 5.14.4 INFORMATION REQUIRED IN CERTIFICATES FROM HEALTH PROFESSIONALS (cont’d)

Administration, advising of the Faculty’s concern with the form provided by Student Health Service to support requests from students. In his memorandum, Dr. Bauer noted that this form does not conform to General Academic Regulation 5.14.4 Information Required in Certificates from Health Professionals and, in particular, does not provide sufficient specific information to allow proper consideration of student cases. Included in the documentation submitted by Dr. Bauer was a copy of a student medical certificate used by another university. Dr. Bauer suggested that the Senate Committee on Undergraduate Studies consider revising the above-noted university regulation to mandate the use of a form similar to that used by the other university.

During its consideration of this matter, Committee members shared the concerns expressed by the Faculty of Business Administration and agreed that the form currently used by Student Health Service does not conform to General Academic Regulation 5.14.4 Information Required in Certificates from Health Professionals. The Committee reviewed the medical certificate submitted by Dr. Bauer and suggested revisions should it be adopted as a standard form to be used by health professionals.

Following consideration of this matter, the Committee agreed to follow up on the concerns expressed by the Committee. In this regard, Mr. B. Riggs (Chair), Dr. R. Shea (Student Affairs and Services), and Ms. S. M. Singleton (Secretary) met with Student Health Service.

At a meeting held on 24 May 2012, it was the decision of the Senate Committee on Undergraduate Studies to recommend the implementation of the “Student Medical Certificate” form as a standard form to be used by health professionals. However, no change to General Academic Regulations is proposed to mandate use of the form. Instead, the Committee agreed that use of this form should be promoted through a variety of media, i.e. orientation, course outlines, the Office of the Registrar’s website, etc. If use of the form is endorsed by Senate, the Office of the Registrar should lead this promotional campaign.

It was moved by Mr. Riggs, seconded by Mr. Collins, to adopt the form with a friendly amendment of deleting in Clause I of the form the words “and, if required to supply additional information, relating to my request for special academic consideration”. Mr. Riggs agreed that in the spirit of collegiality the Senate Committee on Undergraduate Studies will conduct further consultations with members of the medical community regarding the implementation of the form.

It was moved by Dr. Trnka, seconded by Dr. Schipper, that a clause be added to the form to clearly state that the university does not require a diagnosis of an illness. When put to a vote, the amendment to the motion was defeated.

The original motion was then voted on and passed.

6.2 Courses Common to the St. John’s and Grenfell Campuses

A memorandum dated 30 July 2012 was received by Sheila M. Singleton, Secretary, Senate Committee on Undergraduate Studies, regarding Approval
Courses Common to the St. John’s and Grenfell Campuses (cont’d)

of Calendar Changes - Courses Common to the St. John’s and Grenfell Campuses.

Ms. Singleton reported that at a meeting held on 21 June 2012, the Senate Committee on Undergraduate Studies engaged in a discussion regarding proposed calendar changes to existing courses that are common to both the St. John’s and Grenfell Campuses as well as proposals to introduce new courses that would be common to both campuses. When calendar changes of this nature are submitted for the approval of the Senate Committee on Undergraduate Studies, only evidence of consultation between the two campuses is required. At the same time, it has been a longstanding practice that proposed calendar changes that are applicable to more than one faculty must be approved by both academic councils. A case in point is that of the Departments of Computer Science, Economics, Geography, Mathematics and Statistics and Psychology; calendar changes from these departments must be approved by both Faculty Councils of Arts and Science before being considered by the Senate Committee on Undergraduate Studies.

Recognizing that ownership of shared courses rests with both academic units, Ms. Singleton noted that the Committee is recommending that, with the exception of courses in Business Administration, calendar changes to existing courses that are common to both the St. John’s and Grenfell Campuses and proposals to introduce new courses that would be common to both campuses be approved by the Academic Councils of both the relevant Faculty/School Council on the St. John’s Campus and the Academic Council of the Grenfell Campus before being considered by the Senate Committee on Undergraduate Studies.

Before proceeding with consultations with Faculty/School/Councils on the St. John’s campus and the Academic Council of the Graduate Studies on this matter, the Senate Committee on Undergraduate Studies would like to know if this is the direction which Senate would endorse. Mr. Riggs then further described the history of this practise at Memorial as outlined below:

"In the 2011-2012 academic year, following the paperless Senate initiative, the Senate Committee on Undergraduate Studies reviewed its template forms used for the proposal of new courses, changes to courses, new programs, and changes to existing programs. In the process of undertaking this review, all aspects of Calendar revisions were examined. In its discussions, the Senate Committee reaffirmed the importance of intercampus consultation with the proviso that such consultation is simply collegial. The Committee did, however, find reason to bring to Senate’s attention the process of consultation when a change is proposed to a course that is listed in the Calendar for more than one campus.

Currently, Calendar descriptions for shared courses are based on the principle that the academic unit that created the course is the one that brings forward any changes to that course; once these changes are approved by the Senate Committee, they are reflected in the Calendar description for the course. This is not a regulation, however, and in a very small number of instances it has not been happening. The most recent instance involves changes that were made to Mathematics 1000/1001 on the St. John’s campus."
Courses Common to the St. John’s and Grenfell Campuses (cont’d)

The changes involved moving topics from one course to the other. However, if these changes are not implemented on both campuses that teach Mathematics 1000 and 1001, a student completing Mathematics 1090 and Mathematics 1000 in their first year and then moving campuses and completing Mathematics 1001 in their second year (at least half of those who complete Mathematics 1001 follow this path and complete it in their second year) would complete two major topics twice and two not at all. This is not a promising start for potential Science and Engineering students.

The Senate Committee on Undergraduate Studies believes that courses that are taught on two or more campuses that share a common course number must also share a common Calendar description. If not, it runs the risk that students transferring from one campus to another who have completed one or more of these shared courses may not be properly prepared in the subject. This is particularly troubling where the course in question is a prerequisite for a course offered on the campus the student is transferring into. At the same time, the Committee also recognizes the academic freedom of each instructor to adapt the course; nevertheless, the course must always follow the Calendar description.

The Faculty of Arts and the Faculty of Science, where courses offered by the departments listed in the memo that introduced this matter on today’s agenda may be taken as either arts or science credits, have a long-standing procedure in place that clearly states that any changes to courses in any of these departments that may be cross-faculty credits must receive the approval of both faculty’s academic councils. The question before Senate can be traced to that model.

What the Senate Committee on Undergraduate Studies is proposing here today is to ask Senate if it wishes its Committee on Undergraduate Studies to pursue this matter further with relevant academic councils with a view to seeking input from them on whether the descriptions for courses shared by two or more campuses should continue to made only by the academic unit that created the courses. If so, are the changes made by the creator academic unit to be imposed on all instances of the courses offered at any of Memorial University’s campuses? If changes are not to be imposed, what mechanism needs to be put in place to try to effect or arbitrate agreement between all campuses that offer said courses so that a common description will be maintained for all such courses? We anticipate a number of proposals coming forward from the academic councils concerned that will enable us to bring this matter to a successful and mutually agreeable conclusion. We must remind Senators, however, that any procedural change in this area needs the approval of Senate in order for it to be enforced. I would also remind Senators that the provisions of the letter dated 15 September 2007 to Dr. Axel Meisen, President of Memorial University, from Richard E. Sorensen, Chair of the Association to Advance Collegiate Schools of Business Accreditation Coordinating Committee, a copy of which was included in the material sent out for today’s Senate meeting, will in no way be affected by any consultations or decisions arising out of this matter.

In bringing this matter before Senate, the Committee on Undergraduate Studies is eager to learn if this is a direction that Senate would like us to move in. That is why we brought this matter before Senate before presenting it to academic councils first for consultation. If what we propose is not
something that Senate wishes us to undertake, then the matter can die here today and the time and energy of the academic councils will not have been wasted. Furthermore, by bringing this matter to the Senate table and hearing the comments of Senators, we embrace the spirit of intercampus co-operation of which Senate and its Committee on Undergraduate Students are working models, while keeping the best interests of our students foremost on our agendas.

Therefore, Mr. President, I ask if there is support here at Senate for its Committee on Undergraduate Studies to embark upon a round of consultation with academic councils to ascertain their views on the matter under discussion, with a view to having any recommendations emanating out of those discussions placed before Senate by its February meeting in 2013, and would so move that Senate instruct its Committee on Undergraduate Studies to proceed accordingly."

It was moved by Mr. Riggs, seconded by Dr. McKay, and carried to approve the request that consultation proceed with the relevant academic and faculty councils regarding approval of calendar changes for courses common to the St. John’s and Grenfell Campuses.

7. Undergraduate Entrance Scholarship Program

The President invited Dr. Danny Dyer, Chair of the Senate Committee on Undergraduate Scholarships, Bursaries and Awards, to present this item and noted that Mr. Tom Brophy and Mr. Paul Chancey were also in attendance to respond to questions.

A memorandum dated September 4, 2012, was received from Tom Brophy, Director, Student Success Programs and Acting Chair of the Senate Committee on Undergraduate Scholarships, Bursaries and Awards regarding proposed changes to the Undergraduate Entrance Scholarship Program.

In his memorandum, Mr. Brophy explained that during the 2011-12 year extensive analysis has been completed to address the future financial stability of the Undergraduate Entrance Scholarships Program. Although the Undergraduate Entrance Scholarship Program has been in existence for 14 years, the program has never been fully funded and as such has been funded annually on an ad hoc basis by garnering funds from various sources. The problem is further accentuated by the significant increase in the Entrance Scholarship Program costs resulting in a significant funding shortfall. Memorial currently has $950,000 in annual operating funding allocated and approximately $280,000 available annually from interest on endowed funds for flagship scholarships while the total cost for 2011-12 was approximately $1.8 million.

As a result of this consultation, the Senate Committee on Undergraduate Scholarships, Bursaries and Awards, has developed, and unanimously approved, four motions to change the Undergraduate Entrance Scholarship Program. These changes will provide financial stability to this program by not over-spending the available operating funding dedicated to the scholarship program. At the same time, the importance of this program is recognized and as such the revisions endeavor to ensure integrity of the program and continued benefit to the students attending Memorial.
30 July 2012

TO: G. W. Collins, Secretary of Senate
FROM: S. M. Singleton, Secretary
Senate Committee on Undergraduate Studies
SUBJECT: Approval of Calendar Changes - Courses Common to the St. John's and Grenfell Campuses

At a meeting held on 21 June 2012, the Senate Committee on Undergraduate Studies engaged in a discussion regarding proposed calendar changes to existing courses that are common to both the St. John’s and Grenfell Campuses as well as proposals to introduce new courses that would be common to both campuses. As you are aware, when calendar changes of this nature are submitted for the approval of the Senate Committee on Undergraduate Studies, only evidence of consultation between the two campuses is required. At the same time, it has been a longstanding practice that proposed calendar changes that are applicable to more than one faculty must be approved by both academic councils. A case in point is that of the Departments of Computer Science, Economics, Geography, Mathematics and Statistics and Psychology; calendar changes from these departments must be approved by both Faculty Councils of Arts and Science before being considered by the Senate Committee on Undergraduate Studies.

Recognizing that ownership of shared courses rests with both academic units, the Committee is recommending that, with the exception of courses in Business Administration (see attached), calendar changes to existing courses that are common to both the St. John’s and Grenfell Campuses and proposals to introduce new courses that would be common to both campuses be approved by the Academic Councils of both the relevant Faculty/School Council on the St. John’s Campus and the Academic Council of the Grenfell Campus before being considered by the Senate Committee on Undergraduate Studies. Should this not be possible, what methods can be introduced to ensure that courses are consistent between the two campuses; inconsistency negatively impacts student mobility between campuses.

Sheila M. Singleton
Deputy Registrar and
Secretary to the Committee
SMS/mm
Attachment
15 September 2007

Dr. Axel Meisen  
President and Vice-Chancellor  
Memorial University of Newfoundland  
Office of the President  
St. John’s, Newfoundland A1C 5S7  
CANADA

Dear President Meisen:

This letter is to confirm that at its 7 January 2007 meeting, the AACSB Accreditation Coordinating Committee (ACC) reviewed your letter of 23 November 2006 and the follow up materials in regards to the status of emerging business programs at Sir Wilfred Grenfell College (SWGC) in Corner Brook and AACSB accreditation held by the Faculty of Business Administration at the St. John’s campus. ACC agreed, with conditions, that the emerging business programs at SWGC should be excluded from the AACSB review of the business programs at the St. John’s campus. The next AACSB maintenance of accreditation review is scheduled for 2011-12. ACC specified the following conditions in support of its decision:

1. As business degree programs are developed at SWGC, they should follow AACSB standards and guidelines such that SWGC can seek its own AACSB membership and accreditation at a future date.
2. That the business degree programs at the St. John campus and at SWGC be differentiated on diplomas and transcripts.
3. That admission and transfer policies are in place to ensure that students do not freely move between SWGC and St. John.
4. In published materials (printed and electronic), no wording or representation should be made that would imply or infer that SWGC is accredited by AACSB through any affiliation with the St. John campus.
5. SWGC and St. John document and ensure that business program development, program marketing, faculty recruitment, appointment and promotion, financial control, student services, career services, alumni services, and program delivery are distinct for each.
We look forward to continuing to work with you and your colleagues at St. John. Please do not hesitate to contact the AACSB staff if you have any questions regarding this letter or other AACSB matters.

Sincerely,

[Signature]

Richard E. Sorensen, Chair
AACSB Accreditation Coordinating Committee

CC: Dean Richard Cosier, Chair
    AACSB International Maintenance of Accreditation Committee
    Dean Gary Gorman, Faculty of Business Administration
    Memorial University of Newfoundland

Ref UI/AM/AACS0129.DOC (2007)
Office of the Registrar

February 5, 2013

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: Review of Transfer Credit Evaluation

In a September 5, 2012 memorandum, the Senate Committee on Undergraduate Studies requested input from academic units on various practices around granting transfer credits. Include after each question below is the response from the Undergraduate Studies Committee of the Faculty of Science.

1. Should a student be awarded a transfer credit for a course completed at another university if the prerequisite had not been successfully completed at MUN?

   Yes, the Committee did not see any justification for denying the award of transfer credit. If departments were concerned about this practice a request could be made to not set precedents, so that requests could be reviewed on a case-by-case basis.

2. Should a MUN student receive transfer credit when the course is regularly offered by distance at MUN?

   There was no consensus on this item.

3. Are there particular required courses which should/must be completed at MUN due to the nature of the course or significance of the course to the degree program?

   No, none that are not already covered by existing residence requirements, such as those for honours students.

4. Several questions related to Residence Requirements.

   In general members felt that existing regulations were adequate but that if any change is proposed it should be to require a higher number of credit hours to be completed at MUN.

5. Should departments be able to require more than a minimum passing grade before awarding transfer credit?

   Yes.
6. Are there courses for which transfer credit can be awarded only if the course is completed on the campus of another university?

   Yes, this should be the case for courses with laboratory components.

7. If a student has completed the content of a course but not the practical component, such as the laboratory, should the University provide the opportunity to complete the practical component only and upon successful completion grant transfer credit?

   Yes, members felt that there should be a policy to allow this.

8. Should a department have the option of administering an additional examination before awarding transfer credit?

   No. It was felt the existing regulations for Challenge for Credit cover those instances where equivalency is in doubt.

9. How often should precedents be reviewed?

   Every two years.

Joan Burry  
Assistant Registrar and  
Secretary: Committee  
on Undergraduate Studies,  
Faculty of Science

JB/wem
19 December 2012

TO: Secretary, Academic Council  
Faculty of Science

FROM: Jennifer Porter, Secretary (Acting)  
Senate Committee on Undergraduate Studies

SUBJECT: Transfer Credit

I refer to the memorandum dated 5 September 2012 regarding the above. To date, no reply has been received from the Academic Council of the Faculty of Science and since it is the intention of the Senate Committee on Undergraduate Studies to deal with this matter as soon as possible, I am writing again to remind you that the Committee is seeking the advice of Faculties and Schools.

In this regard, the Committee is seeking your response at your earliest possible convenience.

A copy of the memorandum concerned is enclosed for your information.

Jennifer Porter  
Deputy Registrar and  
Secretary to the Committee (Acting)

JP/Imm

Enclosure

cc: Committee on Undergraduate Studies  
Faculty of Science

Dean, Faculty of Science
5 September 2012

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

FROM: Sheila M. Singleton, Secretary, Senate Committee on Undergraduate Studies

SUBJECT: Transfer Credit

The Executive Committee of Senate has directed the Senate Committee on Undergraduate Studies to review the practice of granting transfer credit for courses for which students have not completed Memorial prerequisites. This request arose from an appeal for waiver of Residence Requirements where a student who failed Foundation Mathematics received a Letter of Permission to complete Mathematics 1000 and Statistics 2510 at other universities and required a waiver of Residence Requirements to apply the transfer credits to his/her degree.

The University accepts transfer credits from other accredited post-secondary institutions (universities and colleges) both within and outside Canada. The Pan-Canadian Protocol on the Transferability of University Credit (found at http://phase2.cmec.ca/Publications/Lists/Publications/Attachments/198/Pan-Canadian-Protocol-Transferability-University-Credits.pdf) allows for the first two years of university study within Canada to be transferable.

Individual courses are evaluated by the appropriate academic unit, and

- an exact Memorial equivalent might be identified;
- an unspecified credit in a particular subject area, perhaps at a certain level, might be granted when there is no exactly equivalent course; or
- a credit where the subject area is unspecified might be granted when the subject area is not offered at Memorial.

The applicability of transfer credits to particular programs of study is subject to specific degree requirements.

Course prerequisites differ from one institution to the next even though course content is equivalent, and prerequisites are enforced to greater or lesser extents at different universities.

In considering this issue, we are seeking your input, both through answers to the following questions and through any additional concerns not addressed by the questions.

- Where students have an unresolved failing grade in a prerequisite course attempted at Memorial (such as Mathematics 104F) should the student be awarded credit for a course subsequently completed at another institution (such as Math 1090)? Should the student be required to pass an examination at Memorial to demonstrate that the learning objectives of the course have been met before the transfer credit is awarded? If a student is able to register for and successfully complete a course at another recognized institution, there is no regulation/provision in place to allow the University to withhold a Letter of Permission from a current student.
Should a Memorial student receive transfer credit when the course is regularly offered by distance at Memorial? This would apply in cases where a current student is not able to be present on one of our campuses for one or more semesters but wishes to continue his/her studies. The student might request to attend the campus of another university or to complete an online course from another university.

For degree programs offered in your unit, are there particular required courses which should/must be completed at Memorial due to the nature of the course or due to the significance of the course to the degree program?

Residence Requirements for a First Degree require that the last 30 credit hours required for the degree be completed at this University. Should this be rewritten to capture the requirement that senior courses required for the major/minor/degree be completed at this University?

Should a minimum number of credit hours for a degree be completed at this University? If so, how many?

(In the case of professional schools) Do you require that an institution have professional accreditation before granting transfer credit?

When considering the award of transfer credit, should an academic unit be able to require, in some courses or programs, a minimum grade higher than the passing grade? For example, if promotion/graduation requirements require a grade of B or better, should a B be required before transfer credit is awarded and/or before the course is used to satisfy the requirements of the degree?

Are there cases where a course, because of its nature, can/should be deemed equivalent only if completed on-campus, and not by distance, recognizing that universities do not typically note method of delivery on the official transcript?

In some cases, a student will complete the content of a course but not the practical component, such as a regular laboratory component. Should the University provide the opportunity to complete the practical component only and, upon successful completion, grant transfer credit?

Where a course at another institution appears to be or is deemed to be equivalent to a Memorial course, should the academic unit have the option of administering an additional examination (similar to challenge for credit) before transfer credit is awarded?

How often should precedents be reviewed?

A reply by 31 October 2012 would be appreciated.

If you have any questions or require clarification regarding the above, please get in touch with me by phone at 864-4437 or by e-mail at ssinglet@mun.ca.

Yours truly,

Sheila M. Singleton
Deputy Registrar and
Secretary to the Committee

SMS/Imm

cc: Committees on Undergraduate Studies
Deans/Vice-Presidents/Provost and Vice-President (Academic)
Kenny, Gail

From: JC Loredo-Osti <jcloredoosti@mun.ca>
Sent: January-22-13 10:58 AM
To: Kenny, Gail
Cc: Len Zedel
Subject: Re: Biology 6131 - new course

Biol-6131 has been approved by the committee by 8 votes in favour and none against.

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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: ggs@mun.ca

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

Course No.: B1131

Course Title: Models in Biology

I. To be completed for all requests:

A. Course Type:
   ☐ Lecture course
   ☐ Lecture course with laboratory
   ☑ Laboratory 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

D. Credit hours for this course:
   3

E. Estimated number of contact hours per semester:
   \[
   \text{3 hrs} \times 13 \text{ wks} + \frac{3 \text{ hrs} \times 8}{\text{labs}} = 63 \text{ hrs}
   \]

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

G. Method of evaluation:

<table>
<thead>
<tr>
<th>Class Tests</th>
<th>Written</th>
<th>Percentage</th>
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<tr>
<td></td>
<td>0</td>
<td>Oral</td>
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| Assignments | 30%     |
| Final project | 30%     |
| Other (specify): | 40%     |
| Labs (8 x 5%) |         |
| Final examination: |         |

Total 100%.

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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 ☑ Winter ☐ Spring 2014

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]
Date: Nov 16, 2011

Approval of the head of the academic unit:
Date: [Signature] 2012

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

Secretary, Faculty/School/Council: [Signature]
Date:

Updated October 2011
New Course – Biology Models in Biology

Instructors: Drs. Amy Hurford and Shawn Leroux

Reading list:
- Advanced readings from scientific journals to supplement textbook readings.

Additional advanced readings from the following monographs:
- Benjamin M. Bolker. 2008. Ecological models and data in R.

Description: Study of the design and analysis of statistical and mathematical models for exploring the biology of cells, genes, species, populations, communities and ecosystems. Qualitative, quantitative and graphical techniques are used to analyze models and to compare theoretical predictions with empirical data. Classic models of systems biology, population growth, species competition, predator-prey, ecosystem nutrient cycling, immunology, evolutionary invasion analysis, and species-distribution will be covered.

Evaluation: Labs (8) – 40%; Assignments – 30%; Final project – 30%;

Course Outline:

1) Why make biological models? (Textbook Chapter 1; week 1)

2) How to make biological models? (Textbook Chapter 2; week 2)

3) Classic models in biology (Textbook Chapter 3; week 3 & 4)
   Systems biology/Gen expression; Species distribution models; Competitive exclusion; Ecosystem models; Matrix population models; Markov models; Epidemiological models; Slime mold aggregation; Hodgkin-Huxley model.

4) Solving biological models (Textbook Chapter 6,9; week 5)
   Analytic and numerical methods

5) Graphical and numerical techniques (Textbook Chapter 4; week 6)
   Phase-plane diagrams; isolines; cobwebbing

6) Equilibria, linearization, stability analyses (Textbook Chapters 5,7,8,12; week 7)
   Including evolutionarily stable strategies
Biology \textsc{3} - Models in Biology

7) Sensitivity, reactivity, perturbation analysis (Textbook Chapters 5.4; 10.5; week 8 & 9)

8) Parameter estimation (week 10 & 11)

9) Confronting models with data (week 12 & 13)

\textbf{Labs:}

1) Model derivation (Textbook Primer 1; week 2)

2) Solving biological models (one variable; week 3)

3) Solving biological models (multiple variables; week 4)

4) Equilibria, linearization, stability analyses (Textbook Primer 2; week 5)

5) Phase plane and vector field diagrams (week 7)

6) Sensitivity, reactivity, perturbation analysis (week 8)

7) Parameterizing biological models (Textbook Primer 3; week 10)

8) Model selection (week 12)

\textbf{Assignments:} Three assignments will focus on three different advanced topics. Graduate students will be expected to synthesize assigned readings from the primary literature and write R computer code. A complete assignment includes a synthesis of assigned readings from the primary literature, interpretation and discussion of the results of analyses.

\textbf{Final project:} Graduate students will derive a novel biological model and analyze it with the techniques learned in class. The final report must include an introduction, model derivation, model analysis, discussion, and references.

\textbf{Justification of graduate course}

The evaluation scheme for undergraduates is Labs (8) – 40%; Midterm – 15%; Final project – 15%; Final exam – 30%. As described above, graduate students are not to take the midterm or final exam, and instead are expected to complete assignments (30%) and to complete a more substantial final project (30%).

The computer labs (required by both undergraduate and graduate students) will consist of R code pre-written by the instructors. In addition to the labs, graduate students will be expected to complete three take home assignments. These assignments will be a substantial amount of work which includes writing independent R computer code to solve advanced modeling problems.

Graduate students must complete their final project independently whereas undergraduate students can complete the project in small groups. In addition, graduate student projects will be more in depth (approx. 10 pages; synthesize primary literature, demonstrate programming ability), compared to the undergraduate projects (approx. 5 pages).

The graduate student evaluation scheme emphasizes the students' ability to be self-sufficient in
all areas of model derivation and analysis and their ability to conduct an in-depth analysis of a problem related to an area of their interest.
Strategic Plan for the Faculty of Science
Memorial University of Newfoundland
Fall 2011

The province of Newfoundland and Labrador, and Memorial University are currently undergoing a period of rapid change. As the province’s role within the country has changed, so too has the role of Memorial University and the Faculty of Science. The purpose of this document is to anticipate and plan for research, teaching, and service in this environment and to provide guidance to the Faculty of Science for the next decade.

Anticipated Challenges for the Faculty of Science from 2011 to 2021

• Memorial University will continue to shift its focus to become a more research-intensive university.
• Tri-council (NSERC, CIHR, SSHRC) funding will continue to be a basic operating resource for many faculty members. However, competition for these sources will only increase in the future. While tri-council funding will be fundamental to the research mission of the Faculty of Science, other agencies such as The Atlantic Canada Opportunities Agency, the Atlantic Innovation Fund, Canada Foundation for Innovation, Genome Canada, Genome Atlantic and the Newfoundland and Labrador Research and Development Council will continue to provide the financial resources that will allow us to significantly transform research. For the Faculty of Science to thrive in the next decade, we must pre-position ourselves to take full advantage of these and other opportunities.
• Graduate student numbers will continue to increase.
• Undergraduate student numbers will remain stable or increase modestly. This student population will become more ethnically diverse. Engagement of faculty in undergraduate recruitment activities will need to be increased.
• The numbers of students registering for distance education courses will continue to increase. With this growth, we will need to reconsider the blend of on-campus and distance courses acceptable for a MUN degree, and the extent to which the Faculty of Science should be offering courses to other institutions and accepting courses from other institutions.
• We will continue to be challenged by our infrastructure, but a revitalized provincial economy means that it is reasonable to assume that significant new construction will take place within the next 10 years.
• The Faculty of Science has not fully engaged its alumni. They are a critical resource for this Faculty so establishing this connection will be a major new undertaking.

Vision
A research-intensive Faculty that is renowned both for the caliber of our research and the quality of our graduates
Mission
Consistent with the mission of Memorial University, the Faculty of Science is dedicated to international excellence in research, teaching and engagement to the benefit of people locally, nationally, and internationally.

Mandate

Research
The Faculty of Science is responsible for the provision of a broad spectrum of basic science knowledge and as such serves as the foundation upon which more applied disciplines are based. It is our responsibility to further knowledge within specific science disciplines, as well as to create the conditions that facilitate interdisciplinary research.

Teaching
The Faculty of Science is intended to be broadly accessible to students. Emphasis is placed on creating an environment that encourages and supports the learning process, while also challenging our students to achieve goals they might not have thought possible.

The Plan

Research Goals:
The Faculty of Science will enhance its stature globally as a leading research-intensive faculty that advances knowledge and produces high calibre graduates. Research within the Faculty of Science is primarily devoted to questions of fundamental importance, but also includes applied research relevant locally, nationally, and internationally. To achieve this we will:

1. Support and promote basic and applied research excellence in areas of established strength and emerging opportunity while recognizing the freedom of the faculty to pursue individual research interests based on their judgement, skill, and curiosity. The hiring of faculty will be primarily driven by our research agenda.
2. Attract and retain world-class faculty, students, postdoctoral fellows and staff to engage in cutting edge research activity.
3. Foster an intellectual environment conducive to research excellence and to the training and mentoring of highly qualified personnel.
4. Provide the infrastructure and services essential to support the training of undergraduate and graduate students and leading-edge research.
5. Engage with partners within and outside of Memorial to promote and support interdisciplinary research, research networking, and research collaborations.
6. Promote the high caliber of our research. This can be achieved by more aggressively preparing and nominating our faculty and graduate students for national and international awards.
Current Strengths and Emerging Opportunities in Research.

The Faculty of Science currently has substantial and diverse research strength, the greatest being our faculty, staff, and students. Within academic departments research agendas are driven by the discipline-specific departmental strategic plans. Beyond those, the Faculty of Science engages in interdisciplinary research that crosses individual departments and serves to synergize the research endeavor in the Faculty as a whole. The current research strengths include Marine Sciences; Natural Resources; Biomedical Sciences and Health; Materials Science; and Mathematical and Computational Sciences.

While the Faculty of Science is committed to maintaining its core areas, there are also particular areas of emerging opportunity generated by the expertise of our faculty, our research infrastructure, and our geographical position with its associated climate, resources, and ecology that distinguish us from other faculties of Science. We therefore provide diverse opportunities that will draw researchers and students here in preference to other universities in Canada or internationally. The areas also crosscut most of the departments and are consistent with the priority and strategic areas that federal and provincial government agencies target for funding as well as Memorial's special obligation to the people of Newfoundland and Labrador. They also reflect areas in which we have made recent new hires. For the Faculty of Science, these strategic research areas are:

**Marine Sciences**

Research activities in this area includes, for example: biological, chemical, physical, and geological oceanography and oceanographic modeling; ocean acoustics; ocean data visualization; ocean sensor and instrumentation development; physiology, molecular biology, and biochemistry of aquatic species; aquaculture and fisheries science; marine ecology; cognitive and behavioural ecology of marine species; conservation and climate change; glacial climate systems; harsh environments.

**Natural Resources and Energy**

Research activities in this area include the discovery, production and monitoring of non-renewable and renewable natural resources as well as traditional and alternative sources of energy. Some examples are: petroleum reservoir characterization and modeling; mineralogy; stratigraphy; sedimentology; exploration geophysics; tectonics; environmental impact and monitoring of resource extraction; biofuels and materials; energy sustainability, cognitive and behavioural ecology; landscape ecology and conservation; plant ecology; environmental geology; sustainable/green chemistry; alternative energy sources; geochemistry; biogeochemistry; contaminant hydrology; environmental chemistry.
**Teaching Goals:**

The Faculty of Science is dedicated to providing our undergraduate and graduate students with the best possible educational experience, acknowledging the needs and interests of our province.

1. All decisions involving the education of our students will be designed to uphold the value of a Memorial University Science degree.
2. Students will be provided with the highest quality of instruction. To ensure this, faculty members will receive constructive feedback, and be provided with the opportunity and the means to improve and enhance their teaching and to develop innovations in teaching. Graduate students will have opportunities for developing their teaching skills.
3. We will maintain an infrastructure appropriate for contemporary learning. Undergraduate laboratory equipment will have technology consistent with that used in the modern research environment.
4. Undergraduate students will be involved in the research environment. Our undergraduates will be given the opportunity to participate in research and such experience should be credited on their transcripts. Undergraduate students will be encouraged to present their research findings at regional and national scholarly conferences.
5. We will incorporate technological advancements into our curricula whenever it is appropriate to do so. In particular, an increase in the scope of distance course offerings here and elsewhere will create challenges and opportunities.
6. Teaching excellence will be recognized and rewarded by actively nominating faculty for local and national teaching awards.

**Current Strengths and Emerging Opportunities in Teaching**

The Faculty of Science has a strong reputation of excellence in teaching that is a consequence of the skill and dedication of our faculty and staff. Our instruction ranges from the traditional lecture format, to learning opportunities that place greater emphasis on experiential learning (e.g., field schools and courses and clinical training), to award winning distance education courses. While the Faculty of Science includes a diverse range of disciplines, we are committed to providing students with both the opportunity to learn and the opportunity to apply their knowledge. Coop programs are a relatively small component of our programs within the Faculty of Science, and they provide a learning opportunity that should grow in the future. Likewise, there are also opportunities for expanding the range of options for our students through partnerships with other faculties (e.g., life science and engineering science).

Priorities for most of our undergraduate and graduate programs are provided by our departmental strategic plans. The Faculty of Science is home to our interdisciplinary graduate programs (Aquaculture, Cognitive and Behavioural Ecology, Computational Science, Environmental Science, and Theoretical Physics). As our graduate programs reflect our research expertise, we expect growth in our graduate programs to be fueled by growth in our research programs.
Engagement:

As one of the largest academic units at Memorial University, we tend to be modest about our achievements. However, such modesty means that most outside the Faculty of Science do not know who we are, what we do, and how we contribute to both the university and the province. We therefore do not get the recognition we deserve in terms of the excellence of our teaching programs, and the accomplishments of our students, faculty and staff.

1. We will better engage with the community to make clear our contribution to society and our contribution to the success of the province.
2. We will make a strong connection with our alumni so that they remain engaged with the Faculty of Science after they graduate.
3. The Faculty of Science at Memorial will establish a national profile that distinguishes it from science at other universities in Canada. This will be informed by our research and teaching goals.
4. We will be proactive in our use of technology in order to have a presence in a variety of different media.
5. Our faculty are encouraged to be more engaged with the media and they will be assisted with media training.
6. Students will be encouraged to participate in national and international competitions to both inform ourselves and others of the strengths of our programs.
Professional Development Experiences for Educators

During the winter semester of the 2012/2013 academic year Distance Education, Learning and Teaching Support (DELS) will be offering several professional development experiences highlighting teaching practice and current issues in teaching and learning. These professional development experiences are open to faculty, per course instructors, instructional staff, graduate students and postdoctoral fellows.

The professional development will be offered in four streams and delivered in a blended format; face-to-face sessions and online experiences; to help participants maintain continuity throughout the stream if they choose to do so.

Participants can take part in just one or all of the learning experiences offered in a stream, and they can pick and choose from the various learning experiences in multiple streams in order to meet their professional development needs.

The four streams being offered are:

Stream I – Learner-centred Design
Stream II – Preparing a Teaching Dossier
Stream III – Technology and the Learning Environment
Stream IV – Who are our Students?

A description and key topics for each stream is list below:

Stream I – Learner-centred Design

How can instructors use learner-centered design in practice to promote engagement and enhance student learning?

Though a series of online modules, forums, blended learning activities, and face-to-face sessions participants will examine learner-centered principles and course design. They will explore a variety of strategies to incorporate learner-centered processes and practices into new and existing courses.

This series is designed using learner-centered design principles and will include topics such as: the characteristics of student-centered learning; five steps to incorporating learner-center design into your course; creating a learner-centered syllabus; designing teaching and learning activities, assessment, and feedback practices that support a learner-centered approach; classroom activities for the blended learning classroom; course and program design that support learner-centered goals for optimal academic achievement.
After completing the learning experiences in this stream participants should be able to:

1. Describe the characteristics of student-centered learning
2. Complete the course analysis and design phases of the course development life cycle with the learner in mind
3. Design specific learning components with focus on the learner
4. Define and create a learner-centered course syllabus to provide essential information and promote learning
5. Select and use technology that helps students meet the course outcomes and objectives

Experience I

Title: Introduction to Learner-Centered Course Design

Description: How can instructors use learner-centered course design principles to promote engagement and optimize student learning?

This online facilitated course is an introduction to the concepts of Learner-centered Course Design. Participants will explore a variety of strategies to incorporate learner-centered processes and practices into new and existing courses.

This course is designed using learner-centered design principles and will include topics such as: the characteristics of student-centered learning; creating a learner-centered syllabus; and designing teaching and learning activities, assessment, and feedback practices that support a learner-centered approach for optimal academic achievement.

Facilitators: Denise Carew, Joyce Fewer, and John Hoben, DELTS

Date and Time: Online – Monday, February 18, 2013 (two week asynchronous experience)

To register contact Arlene Power at instrdev@mun.ca indicating your name, department, telephone number, email address, your affiliation with the university, and the professional development experience for which you would like to register.

Stream II – Preparing a Teaching Dossier

This series of learning experiences is offered in a blended format with three face-to-face sessions, online resources and activities, and ongoing feedback and support in the preparation of a teaching dossier.

A teaching dossier is one of the documents that make up an academic file. Its purpose is to provide “a strong context and solid documentary materials” about teaching effectiveness for teaching development and career advancement (Diamond, 2002). Participants will have opportunities to discuss the qualities of good teaching and will complete a draft of their teaching dossier which will consist of: a statement of teaching philosophy and goals; an account
of teaching responsibility; a description of teaching strengths and accomplishments; and a
collection of artifacts to support the claims made about teaching practice and skill.

After completing the learning experiences in this stream participants should be able to:

1. Value the teaching dossier as a tool for teaching improvement and career advancement
2. Be confident about their ability to accurately reflect their teaching practice in a teaching
dossier
3. Reflect on their teaching to identify goals, strengths, accomplishments and areas for
development
4. Compile evidence of their teaching skill
5. Write a narrative that is reflective, self-critical, and that provides a context for the
evidence complied

Experience I

Title: Introduction to a Teaching Dossier

Description: Participants will be asked to complete a short introductory module in
Desire2Learn (D2L) prior to attending the face-to-face session. An email
providing instructions about access to the module will be sent to all registrants
on February 20th. In the face-to-face session we will review the purpose of a
teaching dossier, its content, and the process involved in preparing a dossier.
We will discuss the properties of good teaching and reflect on personal teaching
goals and strengths. A suggested framework for your dossier will be presented
and you will be introduced to D2L’s ePortfolio as one option for collecting and
presenting evidence of your teaching effectiveness.

Facilitator: Allyson Hajek, DELTS

Date and Time: Online Module – available Wednesday, February 20, 2013
Face-to-face Session – Wednesday, February 27, 2013, 3:00 p.m. to 4:30 p.m.

Location: ED 2030B (Education Building)

To register contact Arlene Power at instrdev@mun.ca indicating your name, department,
telephone number, email address, your affiliation with the university, and professional
development experience for which you would like to register.

Stream III – Technology and the Learning Environment

This professional development series will explore the use of technology by post-secondary
instructors and its impact on the learning environment. The series will use a variety of modes of
delivery: online, blended, self-paced and face-to-face, to allow participants to explore themes
related to teaching with technology including: technologies for blended learning, information
literacy, teaching large classes with technology, teacher presence and E-Learning, and using
technological tools to enhance student engagement. This unifying focus will give instructors, a
clear understanding of the effects of technological integration in the classroom as a means of enhancing student learning.

After completing the learning experiences in this stream participants should be able to:

1. Outline the principles of technology assisted teaching and blended models of learning
2. Describe how technology can enhance student engagement and learning;
3. Define technological literacy and describe its role in enhancing teacher-student dialogue
4. Integrating technology with student-centered approaches of teaching and learning;
5. Describe student perspectives on technology as a tool for promoting student-teacher engagement.

Experience I

Title: Let’s Talk Teaching with Technology

Description: Join us for a roundtable discussion with faculty and academic staff who are experienced with or have interest in effectively using technology in their teaching. The goal of the discussion is to raise awareness of the tools that are readily available to the university community, and to provide attendees with the opportunity to showcase some of the innovative ways they are already using technology in their teaching. Come and engage us about technologies you’re interested in using, or share your experiences so others can learn from your success.

Facilitators: Colleen Collett and John Hoben, DELTS

Date and Time: Thursday, March 7, 2013, from 12:00 noon to 1:30 p.m.

Location: ED 2030B (Education Building)

To register contact Arlene Power at instrdev@mun.ca indicating your name, department, telephone number, email address, your affiliation with the university, and professional development experience for which you would like to register.

Stream IV – Who are our students?

Students at Memorial University and indeed across all university and college campuses are changing. They are presenting with complex social, emotional and learning needs. This series of learning experiences focuses on several aspects of the diverse and ever changing needs of Memorial University students. Specifically, this stream will examine the diverse demographic make-up of the current student body, the use of Universal Design for Learning (UDL) as a way to allow greater numbers of students’ access to Memorial’s programs, and examine the increasing prevalence of mental health diagnoses of today’s student.
After completing the learning experiences in this stream participants should be able to:

1. Describe the changing demographics of today’s university students
2. Outline the implications of the changing demographics on a student’s university experience
3. Describe and apply the principles of Universal Design for Learning (UDL) in the post-secondary setting
4. Reflect on how the principles of Universal Design for Instruction (UDL) can be implemented at the classroom level, and beyond to assist students with diverse learning needs
5. Discuss the implications of the increased rate of mental health diagnoses of today’s university student
6. Describe the impact of mental health diagnoses and other diagnosed exceptionalities in university students’ university experiences

Experience I

Title: Universal Design for Learning: An introduction to UDL in Post-Secondary Education

Description: This face-to-face learning experience will introduce the concept of Universal Design for Learning (UDL) and its many applications in post-secondary education. This experience will give participants opportunities to explore the concepts of UDL and will allow them a chance to reflect on and discuss their own uses of UDL.

Facilitators: Jason Geary, DELTS and Gabrielle Young, Faculty of Education

Date and Time: Wednesday, February 20, 2013, from 2:00 p.m. to 3:30 p.m.

Location: ED 2030B (Education Building)

To register contact Arlene Power at instrdev@mun.ca indicating your name, department, telephone number, email address, your affiliation with the university, and professional development experience for which you would like to register.