



Faculty of Science

Office of the Dean
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MEETING OF THE FACULTY COUNCIL OF THE FACULTY OF SCIENCE

A regular meeting of the Faculty Council of the Faculty of Science will be held on Wednesday, March 17, 2021, at 1:00 p.m. by Webex.

AGENDA

- 1. Regrets**
- 2. Adoption of the Minutes of January 20, 2021**
- 3. Business Arising from the Minutes**
- 4. Correspondence: None**
- 5. Reports of Standing Committees:**
 - A. Undergraduate Studies Committee:**
 - a. Department of Biology, proposal to amend BIOL 4710 and cross-list with OCSC 3500, Paper 5.A.a (pages 3-24)
 - b. Department of Ocean Sciences, proposal to amend pre-requisites for OCSC, 3002, 3600 and 4200, Paper 5.A.b (pages 25-31)
 - B. Graduate Studies Committee:**
 - C. Library Committee:**
- 6. Reports of Delegates from Other Councils**
- 7. Report of the Dean**
- 8. Question Period**
- 9. Adjournment**

A handwritten signature in black ink, appearing to read "Travis Fridgen".

Travis Fridgen, Ph.D.
Acting Dean of Science



Office of the Registrar

St. John's, NL Canada A1C 5S7
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February 9, 2021

TO: All Members of Faculty Council, Faculty of Science

FROM: Tracey Edmunds, Secretary, Faculty of Science Committee on Undergraduate Studies

SUBJECT: **Proposals for Calendar Changes**

A virtual meeting held on January 28, 2021, the Faculty of Science Committee on Undergraduate Studies agreed that the following item should be forwarded to Faculty Council for approval:

1. Department of Biology

(a) Amend Biology 4710 and cross list with Ocean Sciences 3500

2. Department of Ocean Sciences

(a) Amend pre-requisites for Ocean Sciences 3002, 3600 and 4200

Tracey Edmunds

Tracey Edmunds

Memorial University of Newfoundland Undergraduate Calendar Change Proposal Form Cover Page

LIST OF CHANGES

Indicate the Calendar change(s) being proposed by checking and completing as appropriate:

- New course(s):
- Amended or deleted course(s): Biology 4710 Experimental Marine Ecology of NL Waters
- New program(s):
- Amended or deleted program(s):
- New, amended or deleted Glossary of Terms Used in the Calendar entries
- New, amended or deleted Admission/Readmission to the University (Undergraduate) regulations
- New, amended or deleted General Academic Regulations (Undergraduate)
- New, amended or deleted Faculty, School or Departmental regulations
- Other:

ADMINISTRATIVE AUTHORIZATION

By signing below, you are confirming that the attached Calendar changes have obtained all necessary Faculty/School approvals, and that the costs, if any, associated with these changes can be met from within the existing budget allocation or authorized new funding for the appropriate academic unit.

Signature of Dean/Vice-President: _____

Date: _____

Date of approval by Faculty/Academic Council: _____

Change to and cross-listing of Biology 4710 – 2 Nov 2020

Memorial University of Newfoundland Undergraduate Calendar Change Proposal Form Senate Summary Page for Courses

COURSE NUMBER AND TITLE

Biology 4710 Experimental Marine Ecology
Ocean Sciences 3500 Experimental Marine Ecology

ABBREVIATED TITLE

Experimental Marine Ecology

RATIONALE

This is a proposal to revive an existing Biology course that has not been offered for a while, and make minor adjustments to cross list it with Ocean Sciences. The course will school students in the art of designing, conducting and interpreting experiments in marine science, with an emphasis on field and lab work. It would primarily benefit the departments of Biology and Ocean Sciences, including the joint BSc/Honours in Marine Biology, by increasing the options available to fulfill program requirements. While the focus will initially be on plankton of the 'marine pelagic food web', other foci could also be incorporated by different instructors. Overall, students will learn about experimental approaches in biological oceanography and marine ecology, ranging from ml to 100s m³ scales, and from lab to field experiments. They will assess different experimental designs with respect to the hypothesis or question under investigation, including choosing controls and blanks. The emphasis will be on hands-on learning and each team of students will plan and conduct their own experiment, including sample analysis and interpretation. After completing the course, students will understand the basic principles underlying hypothesis testing via experiments vs. field or modeling exercises. They will also be able to assess the suitability and merit of different field and laboratory approaches and associated data analyses. The course will be offered during the summer as an intensive 2-week field course at Bonne Bay Marine Station, where field conditions allow this course to be taught. There is currently no similar course at Memorial University. The course may also be of interest to students in Oceans Physics, Environmental Science, or Environmental Engineering.

CALENDAR CHANGES under 12.2 Biology

4710 Experimental Marine Ecology of Newfoundland Waters (~~same as Ocean Sciences 3500~~) is a two-week intensive course that examines the ecology of cold oceans, focussing on energy flux through ~~marine pelagic and benthic flora and fauna of~~ Newfoundland waters, and how the dynamics of this environment influence linkages among organisms in different habitats. The course is field and lab intensive, with lectures and a strong hands-on ~~field~~-component. Students will collect field samples, identify local organisms from the plankton or the benthos, plan and conduct an

Change to and cross-listing of Biology 4710 – 2 Nov 2020

~~experiment, and learn to interpret and present the gathered results and study how and why they vary in time and space.~~ This course is offered during two weeks of the Spring semester.

PR: Science 1807 and Science 1808; BIOL 2600 or at least three of Ocean Sciences 2000 (or BIOL 3710), 2001, 2100, 2200, 2300.

CR: Ocean Sciences 3500

CALENDAR CHANGES under 12.2 Biology (clean version)

4710 Experimental Marine Ecology (same as Ocean Sciences 3500) is a two-week intensive course that examines the ecology of cold oceans, focussing on energy flux through Newfoundland waters, and how the dynamics of this environment influence linkages among organisms in different habitats. The course is field and lab intensive, with lectures and a strong hands-on component. Students will collect field samples, identify local organisms from the plankton or the benthos, plan and conduct an experiment, and learn to interpret and present the gathered results. This course is offered during two weeks of the Spring semester.

PR: Science 1807 and Science 1808; BIOL 2600 or at least three of Ocean Sciences 2000 (or BIOL 3710), 2001, 2100, 2200, 2300.

CR: Ocean Sciences 3500

SECONDARY CALENDAR CHANGES under 12.9 Ocean Sciences (new entry)

3500 Experimental Marine Ecology (same as Biology 4710) is a two-week intensive course that examines the ecology of cold oceans, focussing on energy flux through Newfoundland waters, and how the dynamics of this environment influence linkages among organisms in different habitats. The course is field and lab intensive, with lectures and a strong hands-on component. Students will collect field samples, identify local organisms from the plankton or the benthos, plan and conduct an experiment, and learn to interpret and present the gathered results. This course is offered during two weeks of the Spring semester.

PR: Science 1807 and Science 1808; Biology 2600 or at least three of OCSC 2000 (or Biology 3710), 2001, 2100, 2200, 2300.

CR: Biology 4710

SECONDARY CALENDAR CHANGES under 10.1 Joint Majors

10.1.13.2 Program of Study

Students pursuing a Joint Major in Marine Biology are required to complete a minimum of 60 combined credit hours from Biology and Ocean Sciences, with a minimum of 27 credit hours in each subject:

1. Six credit hours in Critical Reading and Writing (CRW) courses, including at least 3 credit hours in English courses;
2. Mathematics 1000;
3. Earth Sciences 1000;
4. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
5. Physics 1020 and 1021 (or 1050 and 1051);
6. Chemistry 1050 and 1051 (or 1200 and 1001), and 2400 and 2401;
7. Biochemistry 2201 or the former 2101;

Change to and cross-listing of Biology 4710 – 2 Nov 2020

8. Biology 1001, 1002, 2060, 2122, 2250 (or Biochemistry 2100), 2600, 2900, 3710 (or Ocean Sciences 2000) and 3711;
9. Ocean Sciences 1000, 2000 (or Biology 3710), 2001, 2100, and at least one of 2500 or 3500 (or Biology 4710);
10. additional courses to complete the required 60 combined credit hours in Biology and Ocean Sciences with a minimum of 27 credit hours in each subject (except Biology 2040, 2041, 2120, 3053, and 3820). A minimum of 6 credit hours in Biology at the 3000/4000 level and 12 credit hours in Ocean Sciences at the 3000/4000 level is required; and
11. other courses as necessary to complete the minimum of 120 credit hours required for the General Degree of Bachelor of Science.

SECONDARY CALENDAR CHANGES under 10.1 Joint Majors (clean version)**10.1.13.2 Program of Study**

Students pursuing a Joint Major in Marine Biology are required to complete a minimum of 60 combined credit hours from Biology and Ocean Sciences, with a minimum of 27 credit hours in each subject:

1. Six credit hours in Critical Reading and Writing (CRW) courses, including at least 3 credit hours in English courses;
2. Mathematics 1000;
3. Earth Sciences 1000;
4. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
5. Physics 1020 and 1021 (or 1050 and 1051);
6. Chemistry 1050 and 1051 (or 1200 and 1001), and 2400 and 2401;
7. Biochemistry 2201 or the former 2101;
8. Biology 1001, 1002, 2060, 2122, 2250 (or Biochemistry 2100), 2600, 2900, 3710 (or Ocean Sciences 2000) and 3711;
9. Ocean Sciences 1000, 2000 (or Biology 3710), 2001, 2100, and at least one of 2500 or 3500 (or Biology 4710);
10. additional courses to complete the required 60 combined credit hours in Biology and Ocean Sciences with a minimum of 27 credit hours in each subject (except Biology 2040, 2041, 2120, 3053, and 3820). A minimum of 6 credit hours in Biology at the 3000/4000 level and 12 credit hours in Ocean Sciences at the 3000/4000 level is required; and
11. other courses as necessary to complete the minimum of 120 credit hours required for the General Degree of Bachelor of Science.

SECONDARY CALENDAR CHANGES under 10.2 Joint Honours**10.2.21 Marine Biology Joint Honours**

The program is jointly administered by the Department of Ocean Sciences and the Department of Biology. To be eligible for admission, students would normally follow the requirements for the Joint Major in Marine Biology. Specifically, students must have successfully completed Biology 2060, 2250, 2600, and 2900 and Ocean Sciences 2000 (or Biology 3710), 2001, 2100 and 2300 and obtained in these courses a grade of "B" or better, or an average of 75% or higher. Selection is based on academic performance in the required courses.

Change to and cross-listing of Biology 4710 – 2 Nov 2020

Students who wish to be admitted to this programs must submit an "Application for Admission to Honours Program Faculties of Humanities and Social Sciences or Science" to the Department of Biology and the Department of Ocean Sciences.

The following courses will be required:

1. Six credit hours in Critical Reading and Writing (CRW) courses, including at least 3 credit hours in English courses;
2. Mathematics 1000;
3. Earth Sciences 1000;
4. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
5. Physics 1020 and 1021 (or 1050 and 1051);
6. Chemistry 1050 and 1051 (or Chemistry 1200 and 1001), and Chemistry 2400 and 2401;
7. Biochemistry 2201 or the former 2101;
8. Biology 1001, 1002, 2060, 2122, 2250 (or Biochemistry 2100), 2600, 2900, 3710 (or Ocean Sciences 2000) and 3711;
9. Ocean Sciences 1000, 2000 (or Biology 3710), 2001, 2100, 2300 and at least one of 2500 or 3500 (or Biology 4710);
10. Additional courses to complete a required 69 combined credit hours in Biology and Ocean Sciences with a minimum of 30 credit hours in either subject (except Biology 2040, 2041, 2120, 3053, and 3820). A minimum of 9 credit hours in Biology at the 3000/4000 level and 15 credit hours in Ocean Sciences at the 3000/4000 level is required;
11. Either Biology 499A and 499B or Ocean Sciences 499A and 499B; and
12. A sufficient number of elective courses to bring the degree total to 120 credit hours.

Courses cross listed between Biology and Ocean Sciences can only count for one subject or the other.

A maximum of 9 credit hours can be in Biology courses with no associated laboratory/seminar.

SECONDARY CALENDAR CHANGES under 10.2 Joint Honours (clean version)

10.2.21 Marine Biology Joint Honours

The program is jointly administered by the Department of Ocean Sciences and the Department of Biology. To be eligible for admission, students would normally follow the requirements for the Joint Major in Marine Biology. Specifically, students must have successfully completed Biology 2060, 2250, 2600, and 2900 and Ocean Sciences 2000 (or Biology 3710), 2001, 2100 and 2300 and obtained in these courses a grade of "B" or better, or an average of 75% or higher. Selection is based on academic performance in the required courses.

Students who wish to be admitted to this programs must submit an "Application for Admission to Honours Program Faculties of Humanities and Social Sciences or Science" to the Department of Biology and the Department of Ocean Sciences.

The following courses will be required:

1. Six credit hours in Critical Reading and Writing (CRW) courses, including at least 3 credit hours in English courses;
2. Mathematics 1000;
3. Earth Sciences 1000;

Change to and cross-listing of Biology 4710 – 2 Nov 2020

4. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
5. Physics 1020 and 1021 (or 1050 and 1051);
6. Chemistry 1050 and 1051 (or Chemistry 1200 and 1001), and Chemistry 2400 and 2401;
7. Biochemistry 2201 or the former 2101;
8. Biology 1001, 1002, 2060, 2122, 2250 (or Biochemistry 2100), 2600, 2900, 3710 (or Ocean Sciences 2000) and 3711;
9. Ocean Sciences 1000, 2000 (or Biology 3710), 2001, 2100, 2300 and at least one of 2500 or 3500 (or Biology 4710);
10. Additional courses to complete a required 69 combined credit hours in Biology and Ocean Sciences with a minimum of 30 credit hours in either subject (except Biology 2040, 2041, 2120, 3053, and 3820). A minimum of 9 credit hours in Biology at the 3000/4000 level and 15 credit hours in Ocean Sciences at the 3000/4000 level is required;
11. Either Biology 499A and 499B or Ocean Sciences 499A and 499B; and
12. A sufficient number of elective courses to bring the degree total to 120 credit hours.

Courses cross listed between Biology and Ocean Sciences can only count for one subject or the other.

A maximum of 9 credit hours can be in Biology courses with no associated laboratory/seminar.

SECONDARY CHANGES under 11.9 Ocean Sciences

11.9.3.2 Program Regulations for the Major in Ocean Sciences

Students must successfully complete:

1. the 30 specified credit hours required under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems);
2. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
3. Physics 1021 or 1051;
4. a minimum of 30 credit hours in Ocean Sciences, including:
 - a. Ocean Sciences 2000 (or Biology 3710), 2001, 2100 and at least one of 2500 or 3500 (or Biology 4710). Ocean Sciences 1000, successfully completed under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems), will count as 3 of the required 30 credit hours in Ocean Sciences;
 - b. at least one of Ocean Sciences 2200 or 2300; and
 - c. at least 9 credit hours in Ocean Sciences courses at the 3000 and/or 4000 level.
5. extra Science courses as necessary to fulfil the minimum requirement for 78 credit hours in Science as stipulated under Electives of the Degree Regulations for the General Degree of Bachelor of Science. The program should include a minimum of 15 credit hours in Science courses at the 3000 and/or 4000 level; and
6. elective courses as necessary to make up the total of 120 credit hours.

*Change to and cross-listing of Biology 4710 – 2 Nov 2020***11.9.3.3 Program Regulations for the Major in Ocean Sciences (Environmental Systems)**

Students must successfully complete:

1. the 30 credit hours required under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems);
2. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
3. Physics 1021 or 1051;
4. Geography 1050, and at least two of Geography 2102, 2195, or 2425;
5. Earth Sciences 1002, 2502;
6. at least 9 credit hours at the 3000 and/or 4000 level chosen from:
 - a. Geography 3120, 3140, 3250, 3425, 3510, 3905, 4050, 4060, 4250, 4917; and
 - b. Earth Sciences 3600, 4605, 4903.
7. a minimum of 30 credit hours in Ocean Sciences, including:
 - a. Ocean Sciences 2000 (or Biology 3710), 2001, 2100 and at least one of 2500 or 3500 (or Biology 4710). Ocean Sciences 1000, successfully completed under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems), will count as 3 of the required 30 credit hours in Ocean Sciences;
 - b. at least 9 credit hours in Ocean Sciences courses at the 3000 and/or 4000 level.
8. elective courses as necessary to make up the total of 120 credit hours.

11.9.4.2 Program Regulations for the Honours in Ocean Sciences

Students must successfully complete:

1. the 30 credit hours required under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems);
2. Chemistry 2400 (or equivalent). Chemistry 2440 will be accepted as a substitute for Chemistry 2400. However, a number of advanced Science courses may require Chemistry 2400 and 2401. Students are therefore strongly encouraged to successfully complete the Chemistry 2400/2401 sequence or otherwise carefully plan their options;
3. Physics 1021 or 1051;
4. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
5. a minimum of 12 credit hours chosen from:
 - a. Biology 2060, 2122, 2250, 2600, 2900;
 - b. Biochemistry 2100, 2201 or the former 2101, 3206 or 3106, 3207 or 3107, 3108;
6. a minimum of 45 credit hours in Ocean Sciences, including:
 - a. Ocean Sciences 2000 (or Biology 3710), 2001, 2100, 2200, 2300 and at least one of 2500 or 3500 (or Biology 4710). Ocean Sciences 1000, successfully completed under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems), will count as 3 of the required 45 credit hours in Ocean Sciences;
 - b. at least 18 credit hours in Ocean Sciences courses at the 3000 and/or 4000 level.

Change to and cross-listing of Biology 4710 – 2 Nov 2020

- c. Ocean Sciences 499A/B; and
- 7. elective courses as necessary to make up the total of 120 credit hours including a minimum of 15 credit hours at the 3000 and/or 4000 level in any of Biochemistry, Biology, Chemistry, Earth Sciences, Environmental Science, Geography, Ocean Sciences or Physics (these 15 credit hours can include courses completed as part of the requirements in 5.b. but not those required as part of 6. above).

Those courses in which a grade "B" or an average of 75% or higher are required to graduate with an Honours degree as per clause 1. of Academic Standing in the Degree Regulations for the Honours Degree of Bachelor of Science, are the Ocean Sciences courses at the 2000, 3000 and/or 4000 level, and 15 credit hours in courses at the 3000 and/or 4000 level in any of Biochemistry, Biology, Chemistry, Earth Sciences, Environmental Science, Geography, or Physics.

Students should be aware of a number of credit restrictions and refer to the Course Descriptions section for information.

SECONDARY CHANGES under 11.9 Ocean Sciences (clean version)

11.9.3.2 Program Regulations for the Major in Ocean Sciences

Students must successfully complete:

- 7. the 30 specified credit hours required under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems);
- 8. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
- 9. Physics 1021 or 1051;
- 10. a minimum of 30 credit hours in Ocean Sciences, including:
 - a. Ocean Sciences 2000 (or Biology 3710), 2001, 2100 and at least one of 2500 or 3500 (or Biology 4710). Ocean Sciences 1000, successfully completed under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems), will count as 3 of the required 30 credit hours in Ocean Sciences;
 - b. at least one of Ocean Sciences 2200 or 2300; and
 - c. at least 9 credit hours in Ocean Sciences courses at the 3000 and/or 4000 level.
- 11. extra Science courses as necessary to fulfil the minimum requirement for 78 credit hours in Science as stipulated under Electives of the Degree Regulations for the General Degree of Bachelor of Science. The program should include a minimum of 15 credit hours in Science courses at the 3000 and/or 4000 level; and
- 12. elective courses as necessary to make up the total of 120 credit hours.

11.9.3.3 Program Regulations for the Major in Ocean Sciences (Environmental Systems)

Students must successfully complete:

- 9. the 30 credit hours required under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems);

Change to and cross-listing of Biology 4710 – 2 Nov 2020

10. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
11. Physics 1021 or 1051;
12. Geography 1050, and at least two of Geography 2102, 2195, or 2425;
13. Earth Sciences 1002, 2502;
14. at least 9 credit hours at the 3000 and/or 4000 level chosen from:
 - a. Geography 3120, 3140, 3250, 3425, 3510, 3905, 4050, 4060, 4250, 4917; and
 - b. Earth Sciences 3600, 4605, 4903.
15. a minimum of 30 credit hours in Ocean Sciences, including:
 - a. Ocean Sciences 2000 (or Biology 3710), 2001, 2100 and at least one of 2500 or 3500 (or Biology 4710). Ocean Sciences 1000, successfully completed under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems), will count as 3 of the required 30 credit hours in Ocean Sciences;
 - b. at least 9 credit hours in Ocean Sciences courses at the 3000 and/or 4000 level.
16. elective courses as necessary to make up the total of 120 credit hours.

11.9.4.2 Program Regulations for the Honours in Ocean Sciences

Students must successfully complete:

8. the 30 credit hours required under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems);
9. Chemistry 2400 (or equivalent). Chemistry 2440 will be accepted as a substitute for Chemistry 2400. However, a number of advanced Science courses may require Chemistry 2400 and 2401. Students are therefore strongly encouraged to successfully complete the Chemistry 2400/2401 sequence or otherwise carefully plan their options;
10. Physics 1021 or 1051;
11. Statistics 2550 or any of the courses listed in the credit restrictions of Statistics 2550;
12. a minimum of 12 credit hours chosen from:
 - a. Biology 2060, 2122, 2250, 2600, 2900;
 - b. Biochemistry 2100, 2201 or the former 2101, 3206 or 3106, 3207 or 3107, 3108;
13. a minimum of 45 credit hours in Ocean Sciences, including:
 - a. Ocean Sciences 2000 (or Biology 3710), 2001, 2100, 2200, 2300 and at least one of 2500 or 3500 (or Biology 4710). Ocean Sciences 1000, successfully completed under Admission Requirements for the Major in Ocean Sciences or the Major in Ocean Sciences (Environmental Systems), will count as 3 of the required 45 credit hours in Ocean Sciences;
 - b. at least 18 credit hours in Ocean Sciences courses at the 3000 and/or 4000 level.
 - c. Ocean Sciences 499A/B; and
14. elective courses as necessary to make up the total of 120 credit hours including a minimum of 15 credit hours at the 3000 and/or 4000 level in any of Biochemistry, Biology, Chemistry, Earth Sciences, Environmental Science, Geography, Ocean Sciences or Physics (these 15 credit hours can include

Change to and cross-listing of Biology 4710 – 2 Nov 2020

courses completed as part of the requirements in 5.b. but not those required as part of 6. above).

Those courses in which a grade "B" or an average of 75% or higher are required to graduate with an Honours degree as per clause 1. of Academic Standing in the Degree Regulations for the Honours Degree of Bachelor of Science, are the Ocean Sciences courses at the 2000, 3000 and/or 4000 level, and 15 credit hours in courses at the 3000 and/or 4000 level in any of Biochemistry, Biology, Chemistry, Earth Sciences, Environmental Science, Geography, or Physics.

Students should be aware of a number of credit restrictions and refer to the Course Descriptions section for information.

Change to and cross-listing of Biology 4710 – 2 Nov 2020

Memorial University of Newfoundland Undergraduate Calendar Change Proposal Form Appendix Page

From	Response Received
Grenfell campus (Fine Arts and Science)	Yes
Marine Institute	Yes
Faculty of Engineering and Applied Science	Yes
School of Human Kinetics and Recreation	Yes
School of Music	Yes
Faculty of Medicine	Yes

LIBRARY REPORT

RESOURCE IMPLICATIONS

The costs will be covered by the units, including: teaching assistant as required for safety and fee for use of Bonne Bay station (\$5000), which covers all of the on the ground coordination/admin plus any amount of boating, faculty and TA accommodation/food, lecture theatre, aquarium, labs and a certain amount of bussing. The course will be taught by an existing faculty member, so no additional salary costs are required.

*Change to and cross-listing of Biology 4710 – 2 Nov 2020***ADDITIONAL INFORMATION REQUIRED FOR NEW COURSE PROPOSALS****Sample Course Outline and Method of Evaluation****Proposed Course Outline**

This class will be taught as a two-week, all-day, intense field course at Bonne Bay Marine Station during the summer. Most days will start with a lecture, introducing students to that day's topic, before they start on their activities of that day. However, the schedule will remain flexible to accommodate weather and logistical factors. Only the 10 week days are listed, but workload will require some work (e.g. half days) over the weekend such as sampling of ongoing experiments.

Daily lecture topics, examples:

- Day 1 Oceanographic sample collection, lab notebook, safety
- Day 2 Experimental approaches, designs and hypotheses testing
- Day 3 Pre-tests, Experimental set-up
- Weekend
- Day 4 Culturing techniques, sample collection
- Day 5 Protocol Writing, microscopy
- Day 6 Analysis part
- Day 7 No Lecture
- Day 8 Data crunching, quality control, Data Bases
- Weekend
- Day 9 Interpretation and preparation of presentations
- Day 10 Student Presentations

Daily activities, examples:

- Day 1 Field collection of plankton and water samples; Back at station set up of 2-5 mesocosms / aquaria for 1-2 mesocosm experiments (e.g. with shallow and deep water, varying nutrients, etc.).
- Day 2 Hands-on familiarization with approaches (Multicultivators, or Rolling tables) & teams design & prepare their experimental plans
- Day 3 Sampling of mesocosms (1-2 teams take over); start of other experiments (teams of 3-5 per experiment),
- Weekend: Sampling of experiments, reading
- Day 4, Reading/Quiz; Sampling and sample analysis, culturing techniques
- Day 5 Sampling of experiments, Microscopy
- Day 6 Sampling and analysis of samples, preparations of data sheets
- Day 7 Finish all experiments & Field collection of samples to compare to day 1 field conditions
- Day 8 Finish data analysis and conduct quality control, lab clean up
- Weekend: catch up, clean up, reading,
- Day 9 Readings/Quiz, Interpretation and preparation of presentations,
- Day 10 Student Presentations and comparative discussion

This example plan has the small-scale (e.g. Multicultivator) experiments going for 5-6 days, and the mesocosms for 8-9 days – enough to see change in both cases.

*Change to and cross-listing of Biology 4710 – 2 Nov 2020***Format**

This class will be taught Wednesday to Tuesday for two-weeks, as an all-day, intense field course at Bonne Bay Marine Station during the summer. Most of the time will be spent with hands-on work in the lab, field sampling, or computer work, with lectures guiding the different tasks.

Evaluation

1. Experimental Plans: 15%
2. Lab Protocols: 20%
3. Data sheets with results: 15%
4. Readings-Discussion/Quizzes: 15%
5. General participation and engagement: 10%
6. Final Presentation including a poster or essay: 25%

Learning Outcomes

By the end of this course, students should be able to:

- Explain and compare advantages and weaknesses of experimental approaches
- Discuss the principles of addressing a specific research question with a targeted experiment
- Design a simple experiment to address a hypothesis
- Be familiar with some basic oceanographic analysis techniques
- Write a lab-protocols – aligned with existing courses
- Generate data sheets and quality control data
- Interpret results gained from an experiment
- Present results from an experiment

Bibliography

No specific textbook required. Peer-reviewed journal articles of relevance will be identified and made available through the course Brightspace website. Examples:

- Benner I, Passow U. 2010. Utilization of organic nutrients by coccolithophores. *Marine Ecology Progress Series* 404: 21-29
- Boyd PW. 2008. Implications of large-scale iron fertilization of the oceans - Introduction and synthesis. *Marine Ecology-Progress Series* 364: 213-18
- Boyd P, Rynearson T, Armstrong E, Fu F, Hayashi K, et al. 2013. Marine Phytoplankton Temperature versus Growth Responses from Polar to Tropical Waters - Outcome of a Scientific Community-Wide Study. *PLOS One* 8: e63091
- Boyd PW, Collins S, Dupont S, Fabricius K, Gattuso J-P, et al. 2018. Experimental strategies to assess the biological ramifications of multiple drivers of global ocean change – a review. *Global Change Biology*
- Feng Y, Hare C, Leblanc K, Rose J, Zhang Y, et al. 2009. Effects of increased $p\text{CO}_2$ and temperature on the North Atlantic spring bloom. I. The phytoplankton community and biogeochemical response. *Marine Ecology Progress Series* 388: 13-25
- Landry MR, Hassett RP 1982. Estimating the grazing impact of marine micro-zooplankton. *Marine Biology* 67, 283-288
- Siegel DA, Buesseler KO, Behrenfeld MJ, Benitez-Nelson CR, Boss E, et al. 2016. Prediction of the Export and Fate of Global Ocean Net Primary Production: The EXPORTS Science Plan. *Frontiers in Marine Science* 3

Instructor

Dr.Uta Passow, Professor, Department of Ocean Sciences.

Email: uta.passow@mun.ca

Proposal Feedback

From: [Karen Bulmer](#)
To: [Jody-Lynn Burke](#)
Subject: Calendar Change Proposal - BIOL
Date: Friday, November 6, 2020 8:56:32 AM

The School of Music has no issue with the proposed changes.

Sincerely,

Dr. Karen Bulmer — Associate Dean (Teaching and Learning)
Associate Professor of Low Brass
Graduate Officer for Ethnomusicology Programs (MA/PhD)
(she/her/hers)
School of Music
Memorial University of Newfoundland
St. John's, NL A1C 5S7
(709) 864-3673

From: cvardy@mun.ca
To: [Jody-Lynn Burke](mailto:Jody-Lynn_Burke)
Cc: DeanofMedicine@med.mun.ca
Subject: FW: Calendar Change Proposal - BIOL
Date: Wednesday, November 4, 2020 2:57:46 PM
Attachments: [Calendar Change BIOL 4710 and OSCS 3500 2Nov.pdf](#)
Importance: High

Good day

The Faculty of Medicine is supportive of the attached calendar change proposal to revise BIOL 4710 and cross listed with OSCS 3500.

Regards,
Cathy Vardy, MD
Vice Dean of Medicine

From: Jody-Lynn Burke [<mailto:jrotchford@mun.ca>]
Sent: Wednesday, November 4, 2020 11:53 AM
To: Faculty of Humanities and Social Sciences <hss@mun.ca>; Shannahan, Rachelle <rsannahan@mun.ca>; Collett, Meghan <mcollett@mun.ca>; engrconsult@mun.ca; Rohr, Linda <lerohr@mun.ca>; miugconsultations@mi.mun.ca; Steele, Dr. Margaret: Dean of Medicine <DeanofMedicine@med.mun.ca>; Sutherland, Ian D <jsutherland@mun.ca>; DeanNurse <DeanNurse@mun.ca>; pharminfo@mun.ca; Dean of Science <deansci@mun.ca>; adeanugradswk <adeanugradswk@mun.ca>; Library Correspondence <univlib@mun.ca>; kjacobse@grenfell.mun.ca; ssedean@grenfell.mun.ca; thennessey@grenfell.mun.ca
Cc: Sullivan, Shannon <shannon@mun.ca>; sdufour@mun.ca
Subject: Calendar Change Proposal - BIOL
Importance: High

Dear colleagues,

The purpose of this email is to extend an opportunity for you to provide feedback on the attached calendar change proposal to revise BIOL 4710 (Experimental Marine Ecology of Newfoundland Waters) and cross list it with OCSC 3500.

Your feedback, at your earliest convenience, is appreciated. If you have any questions, please don't hesitate to contact me.

Be well and stay safe!

Jody Burke, BSc.(Hons), M.Ed, PGC(QM) – Academic Program Officer
Department of Biology, Memorial University
Office: (709) 864 8021
E-mail: jodyb@mun.ca

From: [Bailey, Robert F.](#)
To: [Jody-Lynn Burke](#)
Cc: [Piercey-Normore, Michele D](#); [Scott, Robert J.](#); [Bennett, Sylvia S.](#); [Warkentin, Ian](#)
Subject: RE: Calendar Change Proposal - BIOL 4710/OCSC 3500
Date: Friday, November 6, 2020 1:03:32 PM
Attachments: [image002.png](#)

Dear Jody,

The Calendar change proposal for BIOL 4710/OCSC 3500 has been forwarded to me.

We are happy to support this change, given that Bonne Bay field courses are a popular and useful choice for Grenfell Campus students. I received the following response from the chair of the Environmental Science program, Dr. Warkentin:

“An additional field oriented course would be welcomed, particularly if it will be offered regularly.”

Also, in my role as chair of the General Science program, an OCSC field course at Bonne Bay would be especially welcome, as it has the potential to provide a field course option for students in the program’s Earth Systems stream.

Thank you for the opportunity to comment on these proposals.

Regards,
Robert Bailey
Chair, Committee on Academic Programming
School of Science and the Environment

=====
Dr. Robert Bailey
Associate Professor, Mathematics
Chair, General Science program
School of Science and the Environment
Grenfell Campus
Memorial University of Newfoundland
Corner Brook, NL A2H 6P9, Canada

Phone: +1 (709) 637-6293 (voicemail only)
Web: <https://www2.grenfell.mun.ca/rbailey/>

From: Bennett, Sylvia S. <sylviab@grenfell.mun.ca>
Sent: 04 November 2020 14:17
To: Bailey, Robert F. <rbailey@grenfell.mun.ca>
Cc: Piercey-Normore, Michele D <mpiercey-normore@grenfell.mun.ca>; Scott, Robert J. <rscott@grenfell.mun.ca>
Subject: FW: Calendar Change Proposal - BIOL

Importance: High

Hi Robert,

On behalf of the Dean...

Please see attached and below, request for Calendar Change Proposal – BIOL 4710 and OSCS 3500.

*Thank you,
Sylvia*

Sylvia Bennett | Assistant to the Dean: School of Science and the Environment(Grenfell Campus)



Memorial University of Newfoundland
Corner Brook, NL A2H 6P9
Phone: (709) 637-6215
Email: sylviab@grenfell.mun.ca
Office No: AS 3024 (School of Science and the Environment)

Physical location: 20 University Drive, Corner Brook, NL A2H 5G4

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http://www.mun.ca/cc/policies/electronic_communications_disclaimer_2011.php

From: Jody-Lynn Burke <jrotchford@mun.ca>

Sent: November-04-20 11:53 AM

To: Faculty of Humanities and Social Sciences <hss@mun.ca>; Shannahan, Rachelle <rshannahan@mun.ca>; Collett, Meghan <mcollett@mun.ca>; engrconsult@mun.ca; Rohr, Linda <lerohr@mun.ca>; MIUG Consultations <MIUGconsultations@mi.mun.ca>; deanofmedicine@med.mun.ca; Sutherland, Ian D <isutherland@mun.ca>; DeanNurse <DeanNurse@mun.ca>; pharminfo@mun.ca; Dean of Science <deansci@mun.ca>; adeanugradswk@mun.ca; Library Correspondence <univlib@mun.ca>; Jacobsen, Ken <kjacobse@grenfell.mun.ca>; Dean - School of Science and the Environment <ssedean@grenfell.mun.ca>; Hennessey, Todd <THENNESSEY@grenfell.mun.ca>

Cc: Sullivan,Shannon <shannon@mun.ca>; sdufour@mun.ca

Subject: Calendar Change Proposal - BIOL

Importance: High

Dear colleagues,

The purpose of this email is to extend an opportunity for you to provide feedback on the attached calendar change proposal to revise BIOL 4710 (Experimental Marine Ecology of Newfoundland

From: [MIUG Consultations](#)
To: [Jody-Lynn Burke](#)
Subject: RE: Calendar Change Proposal - BIOL
Date: Friday, November 27, 2020 9:42:11 AM

Hello,

Thank you for the opportunity to review and comment on the proposal to revise BIOL 4710 (Experimental Marine Ecology of Newfoundland Waters) and cross list it with OCSC 3500.

The Marine Institute supports the proposal.

Regards,
Bev

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

From: Jody-Lynn Burke <jrotchford@mun.ca>
Sent: Wednesday, November 4, 2020 11:53 AM
To: Faculty of Humanities and Social Sciences <hss@mun.ca>; Shannahan, Rachelle <rshannahan@mun.ca>; Collett, Meghan <mcollett@mun.ca>; engrconsult@mun.ca; Rohr, Linda <lerohr@mun.ca>; MIUG Consultations <MIUGconsultations@mi.mun.ca>; deanofmedicine@med.mun.ca; Sutherland, Ian D <isutherland@mun.ca>; DeanNurse <DeanNurse@mun.ca>; pharminfo@mun.ca; Dean of Science <deansci@mun.ca>; adeanugradswk <adeanugradswk@mun.ca>; Library Correspondence <univlib@mun.ca>; kjacobse@grenfell.mun.ca; ssdean@grenfell.mun.ca; thennessey@grenfell.mun.ca
Cc: Sullivan, Shannon <shannon@mun.ca>; sdufour@mun.ca
Subject: Calendar Change Proposal - BIOL
Importance: High

Dear colleagues,

The purpose of this email is to extend an opportunity for you to provide feedback on the attached calendar change proposal to revise BIOL 4710 (Experimental Marine Ecology of Newfoundland Waters) and cross list it with OCSC 3500.

Your feedback, at your earliest convenience, is appreciated. If you have any questions, please don't hesitate to contact me.

Be well and stay safe!

From: [Engineering Consult](#)
To: [Jody-Lynn Burke](#)
Cc: [Geoff Rideout](#); [Edmunds, Jayde](#); [Bruce Quinton](#)
Subject: Re: Calendar Change Proposal - BIOL
Date: Wednesday, November 18, 2020 4:51:43 PM
Importance: High

Dear Ms. Burke,

Thank you for the opportunity to comment on the proposed calendar changes to revise and cross list BIOL 4710.

This afternoon's meeting of the Committee on Undergraduate Studies of the Faculty of Engineering and Applied Science found no impact on our programs. We are happy to support this proposal.

Yours sincerely,

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

On 2020-11-04 11:52, Jody-Lynn Burke wrote:

- > Dear colleagues,
- >
- > The purpose of this email is to extend an opportunity for you to
- > provide feedback on the attached calendar change proposal to revise
- > BIOL 4710 (Experimental Marine Ecology of Newfoundland Waters) and
- > cross list it with OCSC 3500.
- >
- > Your feedback, at your earliest convenience, is appreciated. If you
- > have any questions, please don't hesitate to contact me.
- >
- > Be well and stay safe!
- >
- > JODY BURKE, BSC.(HONS), M.ED, PGC(QM) – ACADEMIC PROGRAM OFFICER
- >
- > Department of Biology, Memorial University
- >
- > Office: (709) 864 8021
- >
- > E-mail: jodyb@mun.ca
- >
- > [1]
- >
- >
- >
- > Links:
- > -----
- > [1] <https://www.mun.ca/success/>

From: [Hennessey, Todd](#)
To: [Jody-Lynn Burke](#)
Subject: RE: Calendar Change Proposal - BIOL
Date: Wednesday, November 4, 2020 2:17:38 PM

Thanks for the opportunity to review; Fine Arts has no feedback at this time.

TODD HENNESSEY, PhD (Birmingham) | DEAN

School of Fine Arts
Grenfell Campus, Memorial University
Corner Brook, Newfoundland
O: 709.637.6277
C: 709.640.5695

www.grenfell.mun.ca

From: Jody-Lynn Burke <jrotchford@mun.ca>
Sent: November 4, 2020 11:53 AM
To: Faculty of Humanities and Social Sciences <hss@mun.ca>; Shannahan, Rachelle <rshannahan@mun.ca>; Collett, Meghan <mcollett@mun.ca>; engrconsult@mun.ca; Rohr, Linda <lerohr@mun.ca>; MIUG Consultations <MIUGconsultations@mi.mun.ca>; deanofmedicine@med.mun.ca; Sutherland, Ian D <isutherland@mun.ca>; DeanNurse <DeanNurse@mun.ca>; pharminfo@mun.ca; Dean of Science <deansci@mun.ca>; adeanugradswk <adeanugradswk@mun.ca>; Library Correspondence <univlib@mun.ca>; Jacobsen, Ken <kjacobse@grenfell.mun.ca>; Dean - School of Science and the Environment <ssedean@grenfell.mun.ca>; Hennessey, Todd <THENNESSEY@grenfell.mun.ca>
Cc: Sullivan, Shannon <shannon@mun.ca>; sdufour@mun.ca
Subject: Calendar Change Proposal - BIOL
Importance: High

Dear colleagues,

The purpose of this email is to extend an opportunity for you to provide feedback on the attached calendar change proposal to revise BIOL 4710 (Experimental Marine Ecology of Newfoundland Waters) and cross list it with OCSC 3500.

Your feedback, at your earliest convenience, is appreciated. If you have any questions, please don't hesitate to contact me.

Be well and stay safe!

Jody Burke, BSc.(Hons), M.Ed, PGC(QM) – Academic Program Officer

Department of Biology, Memorial University
Office: (709) 864 8021
E-mail: jodyb@mun.ca

From: [Rohr, Linda](#)
To: [Jody-Lynn Burke](#)
Subject: Re: Calendar Change Proposal - BIOL
Date: Wednesday, November 25, 2020 9:33:44 AM

Hi Jody-Lynn,

No concerns from HKR on the proposed changes to BIOL 4710.

Linda

Linda E. Rohr PhD
Dean, School of Human Kinetics & Recreation
Memorial University
t: 709.864.8129 f: 709.864.7531 e: lerohr@mun.ca
PE 2027

We acknowledge that the lands on which Memorial University's campuses are situated are in the traditional territories of diverse Indigenous groups, and we acknowledge with respect the diverse histories and cultures of the Beothuk, Mi'kmaq, Innu, and Inuit of this province.

From: Jody-Lynn Burke <jrotchford@mun.ca>
Date: Wednesday, November 4, 2020 at 11:52 AM
To: Faculty of Humanities and Social Sciences <hss@mun.ca>, "Shannahan, Rachelle" <rshannahan@mun.ca>, "Collett, Meghan" <mcollett@mun.ca>, "enrconsult@mun.ca" <enrconsult@mun.ca>, Linda Rohr <lerohr@mun.ca>, "miugconsultations@mi.mun.ca" <miugconsultations@mi.mun.ca>, "deanofmedicine@med.mun.ca" <deanofmedicine@med.mun.ca>, "Sutherland, Ian D" <isutherland@mun.ca>, DeanNurse <DeanNurse@mun.ca>, "pharminfo@mun.ca" <pharminfo@mun.ca>, Dean of Science <deansci@mun.ca>, adeanugradswk <adeanugradswk@mun.ca>, Library Correspondence <univlib@mun.ca>, "kjacobse@grenfell.mun.ca" <kjacobse@grenfell.mun.ca>, "ssedean@grenfell.mun.ca" <ssedean@grenfell.mun.ca>, "thennessey@grenfell.mun.ca" <thennessey@grenfell.mun.ca>
Cc: "Sullivan, Shannon" <shannon@mun.ca>, "sdufour@mun.ca" <sdufour@mun.ca>
Subject: Calendar Change Proposal - BIOL

Dear colleagues,

The purpose of this email is to extend an opportunity for you to provide feedback on the attached calendar change proposal to revise BIOL 4710 (Experimental Marine Ecology of Newfoundland Waters) and cross list it with OCSC 3500.

Memorial University of Newfoundland Undergraduate Calendar Change Proposal Form Cover Page

LIST OF CHANGES

Indicate the Calendar change(s) being proposed by checking and completing as appropriate:

- New course(s):
- X Amended or deleted course(s): OCSC 3002, 3600, 4200
- New program(s):
- Amended or deleted program(s):
- New, amended or deleted Glossary of Terms Used in the Calendar entries
- New, amended or deleted Admission/Readmission to the University (Undergraduate) regulations
- New, amended or deleted General Academic Regulations (Undergraduate)
- New, amended or deleted Faculty, School or Departmental regulations
- Other:

ADMINISTRATIVE AUTHORIZATION

By signing below, you are confirming that the attached Calendar changes have obtained all necessary Faculty/School approvals, and that the costs, if any, associated with these changes can be met from within the existing budget allocation or authorized new funding for the appropriate academic unit.

Signature of Dean/Vice-President: _____

Date: _____

Date of approval by Faculty/Academic Council: _____

Change OCSC course prerequisites – 19 Jan 2021

Memorial University of Newfoundland

Undergraduate Calendar Change Proposal Form

Senate Summary Page for Courses

COURSE NUMBER AND TITLE

Ocean Sciences 3002 Aquaculture and Fisheries Biotechnology

Ocean Sciences 3600 Marine Microbiology

Ocean Sciences 4200 Marine Omics

RATIONALE

This is a proposal to make minor changes to the prerequisites of three courses to correct oversights following recent changes to Biochemistry courses. Because Biochemistry 2200 is credit restricted with Biochemistry 2100, we propose to accept one or the other as a suitable prerequisite.

CALENDAR CHANGES under 12.9 Ocean Sciences

3002 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 or Biochemistry 2100 [or Biochemistry 2200](#)

3600 Marine Microbiology provides an overview of microbial activity in the ocean, both in natural and applied settings. The focus is on interactions between microorganisms and other biota, ranging from deep-sea vent invertebrates to commercially cultured fish species. Prospective topics include effluent discharge, water quality, bacterial metabolism and nutrient cycles, bacteria-virus and bacteria-host interactions (including symbioses and pathogenesis), and marine microbial biotechnology.

PR: Biology 2250 or Biochemistry 2100 [or Biochemistry 2200](#)

4200 Marine Omics provides an overview of marine genomics, transcriptomics, proteomics, glycomics, metabolomics, and lipidomics. Omics-based studies of a variety of marine organisms (e.g. fungi, algae, animals), as well as several industrial applications (e.g. biofuel, nutrigenomics, pharmacogenomics, aquaculture and fisheries), will be considered.

PR: OCSC 1000 and Biology 2250 (or Biochemistry 2100 [or 2200](#)), or OCSC 3002

Change OCSC course prerequisites – 19 Jan 2021

CALENDAR CHANGES under 12.9 Ocean Sciences (clean version)

3002 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 or Biochemistry 2100 or Biochemistry 2200

3600 Marine Microbiology provides an overview of microbial activity in the ocean, both in natural and applied settings. The focus is on interactions between microorganisms and other biota, ranging from deep-sea vent invertebrates to commercially cultured fish species. Prospective topics include effluent discharge, water quality, bacterial metabolism and nutrient cycles, bacteria-virus and bacteria-host interactions (including symbioses and pathogenesis), and marine microbial biotechnology.

PR: Biology 2250 or Biochemistry 2100 or Biochemistry 2200

4200 Marine Omics provides an overview of marine genomics, transcriptomics, proteomics, glycomics, metabolomics, and lipidomics. Omics-based studies of a variety of marine organisms (e.g. fungi, algae, animals), as well as several industrial applications (e.g. biofuel, nutrigenomics, pharmacogenomics, aquaculture and fisheries), will be considered.

PR: OCSC 1000 and Biology 2250 (or Biochemistry 2100 or 2200), or OCSC 3002

Change OCSC course prerequisites – 19 Jan 2021

Memorial University of Newfoundland

Undergraduate Calendar Change Proposal Form

Appendix Page

From	Response Received
Grenfell campus	No
Faculty of Business Administration	No
Faculty of Education	No
Faculty of Engineering & Applied Science	Yes
Faculty of Humanities & Social Science	No
Faculty of Science	Yes
Department of Biochemistry	
Department of Biology	X
Department of Chemistry	
Department of Computer Sciences	
Department of Earth Sciences	
Department of Economics	
Department of Geography	
Department of Mathematics and Statistics	
Department of Physics and Physical Oceanography	X
Department of Psychology	
Marine Institute	Yes
School of Medicine	Yes

LIBRARY REPORT

Not applicable.

RESOURCE IMPLICATIONS

None.

Change OCSC course prerequisites – 19 Jan 2021

REQUEST MESSAGE

Subject:FW: Update: Calendar change proposal for OCSC course prerequisites

Date:Mon, 23 Nov 2020 21:39:13 +0000

From:Fletcher, Garth <fletcher@mun.ca>

To:Associate Dean of Science (Undergraduate) <adsu@mun.ca>, BiocDHundergrad <biocdhundergrad@mun.ca>, Business <fba.ad.undergrad@mun.ca>, chemconsult@mun.ca (chemconsult@mun.ca) <chemconsult@mun.ca>, 'cs-chair@mun.ca' <cs-chair@mun.ca>, Earth Sciences <eascugcon@mun.ca>, Locke, Wade <wlocke@mun.ca>, Hicks, Sue <shicks@mun.ca>, Engineering <enrconsult@mun.ca>, Alcock, Erin <ekalcock@mun.ca>, Grenfell Campus <associatevpoffice@grenfell.mun.ca>, Faculty of Humanities and Social Sciences <hss@mun.ca>, 'mathconsult@mun.ca' <mathconsult@mun.ca>, Medicine <deanofmedicine@med.mun.ca>, 'miugconsultations@mi.mun.ca' <miugconsultations@mi.mun.ca>, Catto, Norm <ncatto@mun.ca>, Physics Head <physicshead@mun.ca>, psychology.head@mun.ca <psychology.head@mun.ca>, Suzanne Dufour <sdufour@mun.ca>, Chapman, Tom <tomc@mun.ca>

CC:amercier@mun.ca <amercier@mun.ca>

Colleagues, we have just become aware of a minor oversight in some of our calendar descriptions. Could you please review the changes by December 4th if at all possible. Please send your responses to Annie Mercier.

Regards to all.
Garth

FEEDBACK RECEIVED

From: Physics Head <physicshead@mun.ca>

Sent: Tuesday, November 24, 2020 10:19 AM

To: Fletcher, Garth <fletcher@mun.ca>

Subject: Re: Update: Calendar change proposal for OCSC course prerequisites

Hi Garth,

We have no concerns with these changes.

Thanks,

Kris
Kristin Poduska, Ph.D.
Professor and Head
Department of Physics and Physical Oceanography
Memorial University of Newfoundland
St. John's, NL A1B 3X7
Canada
URL: <https://www.mun.ca/physics/>

Change OCSC course prerequisites – 19 Jan 2021

From: cvardy@mun.ca <cvardy@mun.ca>
Sent: Tuesday, November 24, 2020 11:15 AM
To: Fletcher, Garth <fletcher@mun.ca>
Cc: DeanofMedicine@med.mun.ca
Subject: FW: Update: Calendar change proposal for OCSC course prerequisites

The Faculty of Medicine is supportive of the proposed calendar changes regarding OCSC Course prerequisites as outlined in your attachment.

Regards,
Cathy Vardy, MD
Vice Dean

Subject: Re: FW: Update: Calendar change proposal for OCSC course prerequisites
Date: Fri, 27 Nov 2020 08:03:24 -0330
From: Engineering Consult <engrconsult@mun.ca>
Organization: Memorial University of Newfoundland
To: Fletcher, Garth <fletcher@mun.ca>, Amercier <amercier@mun.ca>
CC: Geoff Rideout <g.rideout@mun.ca>, Jayde Edmunds <edmundsj@mun.ca>, Bruce Quinton <bruce.quinton@mun.ca>

Dear Dr. Fletcher,

Thank you for the opportunity to comment on the proposed Calendar changes to the prerequisites for three courses in Ocean Sciences.

Yesterday's meeting of the Executive of the Committee on Undergraduate Studies of the Faculty of Engineering and Applied Science found no impact on our programs.

We are happy to support this proposal.

Yours sincerely,

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

From: MIUG Consultations <MIUGconsultations@mi.mun.ca>
Sent: Thursday, December 3, 2020 1:06 PM
To: Fletcher, Garth <fletcher@mun.ca>
Subject: RE: Update: Calendar change proposal for OCSC course prerequisites

Hello Garth,

Thank you for the opportunity to review and comment on the proposal for changes to OCSC course prerequisites.

Change OCSC course prerequisites – 19 Jan 2021

The Marine Institute supports the proposal.

Regards,
Bev

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

Subject:Fwd: FW: Update: Calendar change proposal for OCSC course prerequisites

Date:Mon, 14 Dec 2020 12:33:37 -0330

From:Suzanne Dufour <sdufour@mun.ca>

To:Annie Mercier <amercier@mun.ca>

Hi Annie,

The Biology Undergraduate Studies Committee has reviewed the proposed changes to OCSC course prerequisites and has no concerns.

Thanks,

Suzanne