

Honours Research and Thesis I & II Syllabus

Department of Biology

BIOL/MARI 4901 & 4902 - 2023/24

Dalhousie University acknowledges that we are in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People and pays respect to the Indigenous knowledges held by the Mi'kmaq People, and to the wisdom of their Elders past and present. The Mi'kmaq People signed Peace and Friendship Treaties with the Crown, and section 35 of the Constitution Act, 1982 recognizes and affirms Aboriginal and Treaty rights. We are all Treaty people.

Dalhousie University also acknowledges the histories, contributions, and legacies of African Nova Scotians, who have been here for over 400 years.

Course Instructor(s)

Name	Email	Office Hours
Margaret Cooper	mhcooper@dal.ca	By Appointment; LSC 4130

Course Description

This course is required of, and restricted to, all Biology/Marine Biology Honours programs in which Biology/Marine Biology is the primary area of study. Students conduct a research project supervised by a research scientist and attend weekly meetings of the class. The classes (BIOL/MARI 4901 and BIOL/MARI 4902) are taken in the students' final year. NOTES: BIOL/MARI 4901 and BIOL/MARI 4902 must be taken in consecutive fall/winter terms, or winter/fall terms (co-op only). Grades will not be recorded for either course until both have been completed, and the final Honours Thesis has been evaluated.

Course Prerequisites

Permission of the course Instructor

Course Exclusions

BIOL 4900.06 or MARI 4900.06

Course Structure

Course Delivery

Lectures will take place live in the classroom. They will not be recorded.

Lectures

Tuesdays and Thursdays 11:35-12:55, DUNN 304

Course Details

- Your thesis proposal should be submitted to the Honours Committee, by emailing it to Margi Cooper, as soon as it can be ready, particularly if you are conducting research over the summer prior to starting BIOL/MARI 4901. **The deadline for proposal submission is August 8th, 2023.** Please make sure to use the thesis proposal template, which includes the signature page.
- An interim thesis submission is **due by 5pm on December 7, 2023**, and will be formally evaluated by your supervisor(s). The interim thesis submission consists of any two sections of your thesis. For example, you can submit an Introduction and Methods, or submission of your Methods and Results might make more sense in the context of your project and workflow. The evaluation of your interim submission will constitute *15% of your overall mark*. Submit these sections as a PDF to the appropriate Assignment drop box on Brightspace.
- Your Final Thesis is **due by 5pm on April 10, 2024 (or December 7, 2023 for Co-op students)**. Your thesis will be formally evaluated by your supervisor(s) and two additional readers. The *median* of the grades assigned by these readers will constitute *65% of your overall mark*. Submit your thesis as a PDF to the appropriate Assignment drop box on Brightspace.
- You will give two presentations about your on-going thesis research in class. One will be a 12-minute, conference-style presentation (*worth 6% of your overall mark*) and one will be an “elevator pitch”, a 1-minute, high-level explanation of your project (*worth 1% of your overall mark*). Presentations should be prepared with the assistance of your thesis supervisor. We encourage your supervisor(s) to attend the class the day of your conference-style presentation.
- The Biology Department runs a seminar series most Thursdays from 11:30am-12:30pm. This year, it will be a mix of in-person seminars, held in the 5th Floor Lounge, and seminars delivered via Teams. All seminars will be recorded and made available to the department. Seminars from recent years are available on the Dalhousie Biology Departmental Seminar channel (<https://www.youtube.com/channel/UCr54hscxQsx3M287jYFdgvw>). You will need to attend/watch 3 seminars and for each, complete a Seminar Reflection assignment in which you will critique and/or reflect on the speaker’s communication strategies. The assignment document is available via Brightspace. **Your first reflection is due October 6, 2023. The next two reflections are due no later than March 22, 2023.** Submit your reflections to the appropriate Assignment drop box on Brightspace. Together, your three seminar reflections are *worth 3% of your overall mark*.

- Students who make their conference-style presentation in the *fall term* and perform well may be offered a **5-minute oral presentation** spot at the Cameron Conference. All other students will present a **poster** at the Cameron Conference. Your supervisor(s) should also help you prepare your abstract and presentation. Abstracts will be due by **January 22, 2024**. The 38th Annual Cameron Conference will be held on **Saturday, February 10, 2024**. It is our hope that this year's conference will again be held in person.
- In addition to a grade in BIOL/MARI 4901 & 4902, a grade in BIOL/MARI 8880: Honours Qualifying Exam will appear on your transcript when all the requirements for the Honours program have been satisfied. The Biology Department grades this "exam" on a pass/fail basis. To pass, you must:
 - Satisfy the Honours program requirements (required courses and minimum cGPA).
 - Attend all classes. Attendance will be recorded and participation noted. If a class is missed, you must contact Margi Cooper as soon as possible (or beforehand if you know you will miss a session) and submit an SDA form to the appropriate Assignment drop box on our Brightspace site. A maximum of two SDA may be used each term.
 - Participate and present at the Cameron Conference.

Assessment

Class Presentations	7%	Fall or Winter Term
Seminar Reflections	3%	Fall and Winter Term
Cameron Conference Presentation	10%	February 10, 2024
Thesis	80%	Interim Submission due Dec. 7, 2023; Final Thesis due April 10, 2024 (Co-ops submit Dec. 7, 2023)

Conversion of numerical grades to final letter grades follows the

[Dalhousie Grade Scale](#)

A+ (90-100)	B+ (77-79)	C+ (65-69)	D (50-54)
A (85-89)	B (73-76)	C (60-64)	F (0-49)
A- (80-84)	B- (70-72)	C- (55-59)	

Course Policies on Missed or Late Academic Requirements

Extensions for submitting theses will be considered on the basis of:

- a documented medical issue
- a letter from the supervisor stating the reasons for an extension and approving the request

Thesis extensions are granted only in very extenuating circumstances, such as a health crisis or in cases where a student's experiments fail due to circumstances outside of his/her control and where such a failure prevents the student from completing a thesis. Each of these cases are reviewed by the Honours Committee before an extension is granted. Requests for extensions so that a student can expand a thesis into a manuscript for submission are not granted. Creating a publishable manuscript is indeed encouraged, but the thesis must be submitted at the end of the Honours course in April (or December option for Co-ops)

Requests for extensions must be submitted in writing to the Honours Committee two weeks BEFORE the thesis submission date of April 10th, 2024. Email requests to Margi Cooper (mhcooper@dal.ca).

Those receiving an extension will not be able to graduate in May, but could do so the following October. The student will receive an "INC" on their record (BIOL/MARI 4901 & 4902). When the final grade has been determined after thesis submission, the INC will be removed and the appropriate grade inserted. If students intend to graduate in May, then a thesis extension is not possible.

Theses submitted after the deadline, without a formal extension, will receive a late penalty of 15% per day.

Course Policies related to Academic Integrity

You are expected to abide by Dalhousie University's policies on academic integrity. All submitted assessments must be your own work. This means that the use of generative AI or large language models (e.g. ChatGPT) for writing your thesis is not appropriate.

This class subscribes to a Brightspace Learning web-based service that checks for originality in submitted work.

Course Content

Date		Session Topic
Sept	5	Welcome to Honours
	7	Career Panel - Representatives from Academia, Government, and Industry
	12	Biology Liaison Librarian with strategies for library research
	14	Boris Worm - Science Communication for Societal Impact
	19	Preparing a Conference-style Presentation Introduction to the Seminar Reflection Assignment
	21	Graduate School Considerations <ul style="list-style-type: none"> • Dr. Erin Bertrand - Department of Biology's Graduate Coordinator • Dr. Alastair Simpson - Graduate Admissions Coordinator • Cat Bannon – Current PhD Student and co-author of Jabre et al (2021) Ten simple rules for choosing a PhD supervisor. PLoS Comput Biol 17(9): e1009330
	26	Elevator Pitches
	28	Elevator Pitches
Oct	3	Strategies for your Thesis Year <ul style="list-style-type: none"> • Time Management • Managing the Student-Supervisor Relationship
	5	Departmental Seminar
	6	First Seminar Reflection Due - 5pm
	10	Conference-style Presentations
	12	Conference-style Presentations
	17	Conference-style Presentations
	19	Conference-style Presentations
	24	Conference-style Presentations
	26	Conference-style Presentations
	31	Conference-style Presentations
Nov	2	Conference-style Presentations
	7	Conference-style Presentations
	9	Departmental Seminar
	14&16	Reading Week
	21	Conference-style Presentations
	23	Departmental Seminar
	28	Conference-style Presentations
	30	Departmental Seminar
Dec	7	Interim Submission Due - 5pm

Jan	9	Conference-style Presentations
	11	Departmental Seminar
	16	Conference-style Presentations
	18	Departmental Seminar
	22	Cameron Conference Abstract Due - 5pm
	23	Conference-style Presentations
	25	Departmental Seminar
	30	Make-Up Presentations (if needed)
Feb	1	Departmental Seminar
	6&8	Tuesday - No Class/Thursday - Departmental Seminar
	10	CAMERON CONFERENCE - All Day
	13&15	Tuesday - No Class/Thursday - Departmental Seminar
	19-23	Reading Week
	27&29	Tuesday - No Class/Thursday - Departmental Seminar
March	5&7	Tuesday - No Class/Thursday - Departmental Seminar
	12&14	Tuesday - No Class/Thursday - Departmental Seminar
	19	Thesis Formatting Q&A
	21	Departmental Seminar
	22	Last Two Seminar Reflections Due - 5 pm
	26&28	Tuesday - No Class/Thursday - Departmental Seminar
April	2&4	Tuesday - No Class/Thursday - Departmental Seminar
	10	Final Thesis Submissions Due - 5pm

University Policies and Statements

Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel, and support. Visit or e-mail the Indigenous Student Centre at 1321 Edward St or elders@dal.ca. Additional information regarding the Indigenous Student Centre can be found at: https://www.dal.ca/campus_life/communities/indigenous.html

Internationalization

At Dalhousie, 'thinking and acting globally' enhances the quality and impact of education, supporting learning that is "interdisciplinary, cross-cultural, global in reach, and orientated toward solving problems that extend across national borders." Additional internationalization information can be found at: <https://www.dal.ca/about-dal/internationalization.html>

Academic Integrity

At Dalhousie University, we are guided in all our work by the values of academic integrity: honesty, trust, fairness, responsibility, and respect. As a student, you are required to demonstrate these values in all the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity. Additional academic integrity information can be found at: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility

The Student Accessibility Centre is Dalhousie's centre of expertise for matters related to student accessibility and accommodation. If there are aspects of the design, instruction, and/or experiences within this course (online or in-person) that result in barriers to your inclusion, please contact the Student Accessibility Centre (https://www.dal.ca/campus_life/academic-support/accessibility.html) for all courses offered by Dalhousie with the exception of Truro. For courses offered by the Faculty of Agriculture, please contact the Student Success Centre in Truro (<https://www.dal.ca/about-dal/agricultural-campus/student-success-centre.html>)

Conduct in the Classroom – Culture of Respect

Substantial and constructive dialogue on challenging issues is an important part of academic inquiry and exchange. It requires willingness to listen and tolerance of opposing points of view. Consideration of individual differences and alternative viewpoints is required of all class members, towards each other, towards instructors, and towards guest speakers. While expressions of differing perspectives are welcome and encouraged, the words and language used should remain within acceptable bounds of civility and respect.

Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness (Strategic Priority 5.2). Additional diversity and inclusion information can be found at: <http://www.dal.ca/cultureofrespect.html>

Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner - perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution. The full Code of Student Conduct can be found at:

https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

Fair Dealing Policy

The Dalhousie University Fair Dealing Policy provides guidance for the limited use of copyright protected material without the risk of infringement and without having to seek the permission of copyright owners. It is intended to provide a balance between the rights of creators and the rights of users at Dalhousie. Additional information regarding the Fair Dealing Policy can be found at: https://www.dal.ca/dept/university_secretariat/policies/academic/fair-dealing-policy-.html

Originality Checking Software

The course instructor may use Dalhousie's approved originality checking software and Google to check the originality of any work submitted for credit, in accordance with the Student Submission of Assignments and Use of Originality Checking Software Policy. Students are free, without penalty of grade, to choose an alternative method of attesting to the authenticity of their work and must inform the instructor no later than the last day to add/drop classes of their intent to choose an alternate method. Additional information regarding Originality Checking Software can be found at:

https://www.dal.ca/dept/university_secretariat/policies/academic/student-submission-of-assignments-and-use-of-originality-checking-software-policy-.html

Student Use of Course Materials

Course materials are designed for use as part of this course at Dalhousie University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as books, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law. Copying this course material for distribution (e.g. uploading to a commercial third-party website) may lead to a violation of Copyright law.

Faculty of Science

Student Resources and Support

University Policies and Programs

Important Dates in the Academic Year (including add/drop dates):

http://www.dal.ca/academics/important_dates.html

Classroom Recording Protocol:

https://www.dal.ca/dept/university_secretariat/policies/academic/classroom-recording-protocol.html

Dalhousie Grading Practices Policies:

https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

Grade Appeal Process: https://www.dal.ca/campus_life/academic-support/grades-and-student-records/appealing-a-grade.html

Sexualized Violence Policy: https://www.dal.ca/dept/university_secretariat/policies/health-and-safety/sexualized-violence-policy.html

Scent-Free Program: <https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>

Learning and Support Resources

General Academic Support – Advising (Halifax): https://www.dal.ca/campus_life/academic-support/advising.html

General Academic Support – Advising (Truro): <https://www.dal.ca/about-dal/agricultural-campus/ssc/academic-support/advising.html>

Student Health & Wellness Centre: https://www.dal.ca/campus_life/health-and-wellness.html

On Track (helps you transition into university, and supports you through your first year at Dalhousie and beyond): https://www.dal.ca/campus_life/academic-support/On-track.html

Indigenous Student Centre: https://www.dal.ca/campus_life/communities/indigenous.html

Indigenous Connection: <https://www.dal.ca/about-dal/indigenous-connection.html>

Elders-in-Residence (The Elders in Residence program provides students with access to First Nations elders for guidance, counsel, and support. Visit the office in the Indigenous Student Centre or contact the program at elders@dal.ca or 902-494-6803:

<https://cdn.dal.ca/content/dam/dalhousie/pdf/academics/UG/indigenous-studies/Elder-Protocol-July2018.pdf>

Black Student Advising Centre: https://www.dal.ca/campus_life/communities/black-student-advising.html

International Centre: https://www.dal.ca/campus_life/international-centre.html

South House Sexual and Gender Resource Centre: <https://southhousehalifax.ca/about/>

LGBTQ2SIA+ Collaborative: <https://www.dal.ca/dept/vpei/edia/education/community-specific-spaces/LGBTQ2SIA-collaborative.html>

Dalhousie Libraries: <http://libraries.dal.ca/>

Copyright Office: <https://libraries.dal.ca/services/copyright-office.html>

Dalhousie Student Advocacy Services: <https://www.dsu.ca/dsas?rq=student%20advocacy>

Dalhousie Ombudsperson: https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html

Human Rights and Equity Services: <https://www.dal.ca/dept/hres.html>

Writing Centre: https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html

Study Skills/Tutoring: http://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html

Faculty of Science Advising Support: <https://www.dal.ca/faculty/science/current-students/undergrad-students/degree-planning.html>

Safety

Biosafety: <http://www.dal.ca/dept/safety/programs-services/biosafety.html>

Chemical Safety: <https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>

Radiation Safety: <http://www.dal.ca/dept/safety/programs-services/radiation-safety.html>

Laser Safety: <https://www.dal.ca/dept/safety/programs-services/radiation-safety/laser-safety.html>