

Cultural Evolution Syllabus

Department of Biology

BIOL4510 Winter 2024

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
Hal Whitehead	hwhitehe@dal.ca	Tues, Thurs, 14:30-15:00, LSC7076
Sam Walmsley, TA	sam.walmsley@dal.ca	TBD

Course Description

Culture is socially learned and group-specific information or behaviour. This course explores the nature of culture across the animal kingdom, how it evolves, and its relationship to ecology, genetic evolution and conservation. Students consider and discuss the controversies and uncertainties as to the role of culture in biology.

Course Prerequisites

BIOL 2040 (Evolution), and BIOL 3062 (Behavioural Ecology) or PSYO 3162 (Advanced Animal Behaviour)

Course Exclusions

None.

Student Resources

Office hours for H. Whitehead: Tues, Thurs, 14:30-15:00, LSC7076

Office hours for S. Walmsley (TA): **TBD**

Course Structure

Course Delivery

The course will be delivered, and largely assessed, in person in the classroom.

Lectures

Tuesday, Thursday 13:05-14:25 LSC P5208

Laboratories

None

Tutorials

None

Course Materials

[Course Brightspace page](#)

Assessment

Assignments

Component	Weight (% of final grade)	Date
Midterm test	15%	15 Feb
Final test	15%	27 April
Discussion participation	15%	
Introduce discussion paper	10%	
Quizzes on discussion papers	15%	
In-class essay #1	15%	6 Feb
Exam period essay #2	15%	11-23 April

Tests/quizzes

Midterm test: This will be an in-class, short-answer exam on topics in first half of class (students answer ca. 10 questions out of ca. 12)

Final test: This will be an in-class, short-answer exam on topics in second half of class (students answer ca. 10 questions out of ca. 12)

Quizzes on discussion papers: At the beginning of each class, students will have a one-question quiz on the assigned paper. Answers will be a phrase or less. Students can miss two quizzes.

Final exam

The second in class essay will be held during the examination period.

Other course requirements

Discussion participation: Students will be marked on their participation in the discussion for each lecture (2 marks for attendance; 3 marks for brief remark; 4 marks for substantial remark(s); 5 for important intervention(s)). Discussion participation marks will be averaged over all classes, although two missed classes will be allowed.

Introduce discussion paper: Students will each introduce one discussion paper (a list will be available on Brightspace). Students will be allocated to papers and dates randomly. The introduction will last less than 5 minutes and not use Powerpoint or any other visual aid.

In-class essays: At two points during the class, students will be given a fairly broad paper to read and think about outside class. For each essay, the first during a class period and the second during the exam period, they will be given a question to write about relating to the material in the assigned paper. While writing the essay (on paper) students will not have access to the reading, or any other literature, or the Internet. Detailed citations are not expected.

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

Students are expected to use the Student Declaration of Absence form when appropriate, and may use the form as many times as necessary. We will make adjustments to requirements for absences due to medical or related causes.

Course Policies related to Academic Integrity

All work in class (quizzes, tests, discussion participation, introductions to discussion papers, and in-class essays) should be carried out Individually. Outside class, students may discuss issues among themselves or with others, and use resources on the Internet or library.

Learning Objectives

How biologists view the concept of culture.

How animals learn socially.

Why culture is a system of heritability.

How culture evolves.

The breadth of culture across the animal kingdom.

How the capacity of culture may have evolved.

How culture affects genetic evolution.

The role of culture in ecology.

Course Content

Preliminary list of classes:

09-Jan-24	Introduction to class
11-Jan-24	What is culture?
16-Jan-24	What is social learning?
18-Jan-24	Types of culture
23-Jan-24	How culture evolves
25-Jan-24	Culture in insects
30-Jan-24	Culture in fish, rodents, ungulates
01-Feb-24	Culture in baleen whales
06-Feb-24	Culture in toothed whales
08-Feb-24	Culture in birds: songs
13-Feb-24	Culture in birds: feeding and migration
15-Feb-24	Midterm test
27-Feb-24	In-class essay #1
29-Feb-24	Culture in monkeys
05-Mar-24	Culture in apes
07-Mar-24	Culture in humans: foraging, tools
12-Mar-24	Culture in humans: society and culture
14-Mar-24	Sampling biases in the study of cultural evolution
19-Mar-24	How is human culture different?
21-Mar-24	Culture in humans: language and communication
26-Mar-24	Culture and conservation
28-Mar-24	The evolution of cultural capacity
02-Apr-24	Gene-culture coevolution
04-Apr-24	Final test
11-23 April	Exam period essay #2

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.