

**Faculty of Science Course Syllabus
Department of Biology**

**Nature Conservation (BIOL 3601)
Winter 2021**

Instructor: Rajesh Rajaselvam Email: Rajesh.Rajaselvam@Dal.Ca Office: LSC 3082

Office Hours: Tuesday/Friday 13:30 – 15:00 pm, Thursday by appointments

Lectures: Tuesday & Thursday 11:35 – 12:55 hrs (Synchronous)

Tutorials: 6 tutorials (120 min/tutorial)

Monday 14:35 – 16:25 hrs (Synchronous)

****Delivery of lectures & tutorials: Synchronous via Collaborate Ultra on Brightspace***

Course Description

This interdisciplinary course explores relationships between humans and the natural world, including damage caused to species and ecosystems. The course looks at environmental ethics and world views, environmental philosophy, sustainability, and conservation science and actions, including the establishment of protected areas. The ultimate focus will be on combating threats to nature, and major conservation challenges. This interactive course emphasizes student involvement and participation.

Course Prerequisites

BIOL 1010.03 (or BIOL 1020.03 or BIOA 1002.03) or BIOL 1011.03 (or BIOL 1021.03 or BIOA 1003.05); or SCIE 15XX, or permission of instructor.

Course Textbook

Main Text (T1): Peter Kareiva & Michelle Marvier, 2017. *Conservation Science*. 2nd ed. Macmillan Learning.

Additional Text (T2): Peter Kareiva, Michelle Marvier & Brian Silliman, 2018. *Effective Conservation Science: Data not Dogma*. Oxford University Press.

Learning Objectives

- Describe need of nature conservation.
- Understand impacts of threats and challenges to biodiversity.
- Demonstrate basic environmental ethics and sustainability.
- Enable conservation decision making on national and international concerns.
- Demonstrate deeper knowledge of a specific conservation topic through formal group oral presentation and report writing.
- Discuss nature conservation literature.

Course Assessment

Assignment, Exam, or Presentation	Marks %	Date
Quiz 1	08	Feb 09
Mid-Term Exam	24	Feb 23
Oral Presentation (group presentation)	10	Mar 16, 18, 22, 23 & 25
Quiz 2	08	Apr 01
Lab/Seminar Reports	20	TBA
Final Exam	30	TBA
Total	100	

Oral Presentation

Students are expected to do a 10 + 2 minute power point presentation (Group) on their chosen topic related to Nature Conservation.

Grading Scale

Conversion of numerical grades to Final Letter Grades follows the [Dalhousie Common Grade Scale](#)

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

Course Policies

General Policies:

Online class participation is considered vital. Detailed PPT lectures are uploaded before the lectures. No lecture recordings are uploaded due to the nature of the course (global politics, personal research videos, copyright issues, etc.). Biweekly discussion sessions are offered (mainly considering students in the time zones with at-least eight-hour difference) on request.

Tutorial/Seminar sessions are compulsory. Complete attendance of all lectures is highly recommended since it helps to improve your grade significantly.

Meeting deadlines is mandatory (due to the current health regulations/restrictions and internet-related issues, a two-week deadline is given to all assignment submissions). No late submission without a valid reason is accepted for marking.

Brightspace (course web-tool) is used for lectures, tutorials, regular updates, and announcements. TAs are the first point of contact (unless for major issues) and copying the instructor on messages is highly recommended.

Specific Policies:

The policies will only be implemented when a student's absence is due to physical or mental health conditions; involvement in an accident; immediate family illness, injury, or death; or other extenuating circumstances as described in Dalhousie University's Academic Calendar Regulation: Missed or Late Academic Requirements due to Student Absence (SDA)⁽¹⁾. The student must notify the instructor or teaching assistant *prior* to the academic requirement deadline and must submit a completed Student Declaration of Absence form⁽²⁾. No more than **two (2)** separate Student Declaration of Absence (SDA) forms may be used per course during a single term. SDA forms are valid **only** for tutorials, mandatory lectures/presentations & quizzes.

Quizzes

- If quiz #1 is missed for a valid and credible reason, those marks will be re-distributed to quiz #2
- If quiz #2 is missed for a valid and credible reason, those marks will be re-distributed to the final exam
- If both quizzes are missed, only one will be re-distributed

Midterm Exam and Final Exam

- One makeup exam can be scheduled for any student(s) provided the examination was missed for a valid and credible reason (document/s may be required), the instructor or teaching assistant was notified prior to the examination start time.
- The makeup exam will be a different exam than the one given during the regularly scheduled examination time

Tutorials

- Missing a tutorial is only acceptable in those cases where the student has notified the teaching assistant prior to the start time of the tutorial with a valid and credible reason

Altogether, **no more than three (3)** tutorials, quizzes, and exams may be missed as there will not be enough material to adequately evaluate the student on.

⁽¹⁾Academic Calendar Regulation: Missed or Late Academic Requirements due to Student Absence:
[https://cdn.dal.ca/content/dam/dalhousie/pdf/dept/university_secretariat/Student%20Absence%20Regulation%20\(May%202018\).pdf](https://cdn.dal.ca/content/dam/dalhousie/pdf/dept/university_secretariat/Student%20Absence%20Regulation%20(May%202018).pdf)

⁽²⁾Student Declaration of Absence Form:
<https://cdn.dal.ca/content/dam/dalhousie/pdf/campuslife/Health%20and%20wellness/FINAL%20Student%20Declaration%20of%20Absence%20Form.pdf>

Course Content

Schedule (Tentative)

A. Lectures

Week 1

Jan 07 - General Introduction I (Teaching team, Brightspace, Policies, syllabus, online related etc.)

Week 2

Jan 12 - Course Introduction, Humans: The dominant ecological force (*T1 Chap 1*)

Jan 14 - Why conservation is needed I: Biodiversity and extinction (*T1 Chap 2, T2 Chap 22*)

Week 3

Jan 19 - Why conservation is needed II: The value of valuing nature: Current issues
(*T1 Chap 2, T2 Chap 3 & 25*)

Jan 21 - Mass Extinction: Are we heading to the sixth mass extinction? (Pre tutorial session)

Week 4

Jan 26 - Protected areas: A cornerstone of conservation (*T1 Chap 5 & 6, T2 Chap 23*)

Jan 28 - The guide: Movie on "Gorongosa restoration story" (Pre tutorial session)

Week 5

Feb 02 - Parks and Protected Areas in Canada: Current issues

Feb 04 - The performance and potential of protected areas: *Discussion session*

Week 6

Feb 09 - Introduction to students' oral presentation, **Quiz 1 ...8 Marks**

Feb 11 - Choosing conservation actions (*T1 Chap 9 & 11*)

Week 7:

Study Break

Week 8

Feb 23 - Midterm Exam (11:35 – 12:55 hrs, online)...24 Marks

Feb 25 - Pre tutorial session, Oral presentation discussion (*TAs*)

Week 9

Mar 02 - Reversing deforestation I (*T1 Chap 13*)

Mar 04 - Reversing deforestation II: Current issues (*T1 Chap 13*) & Midterm Review

Week 10

Mar 09 - Balancing agriculture and conservation (*T1 Chap 14, T2 Chap 11*)

Mar 11 - Managing fresh water for people and nature (*T1 Chap 16*)

Week 10

Mar 16 & 18 - Students' Presentations 10 Marks

Week 11

Mar 23 & 25 - Students' Presentations 10 Marks

Week 12

Mar 30 - Sustainable marine fisheries: *Discussion session* (*T1 Chap15, T2 Chap 17 & 19*)

Apr 01 - Quiz 2 8 Marks

Week 13

Apr 06 - Making conservation a success story: Current issues (*T1 Chap 19*) & End-Term revision

Final Exam (TBA/Scheduled by Registrar, online) ...30 marks

B. Seminar/Tutorial sessions

Attendance Mandatory, (4 x 5) = 20 marks

Jan 25: Tutorial 1: Mass Extinction: Are we heading to another? (**Report required**)

Feb 01: Tutorial 2: "Gorongosa": Restoration story (**Report required**)

Feb 08: Tutorial 3: Paper critique/ TA Discussion, Final submission on or before Feb 17 (**Report required**)

Mar 01: Tutorial 4: Conservation poster (**Report required**)

Mar 08: Tutorial 5: Topic/Discussion on oral presentation (group activity)

Mar 15: Tutorial 6: PPT preparation and submission (group activity)

Mar 22: Students' presentations

University Policies and Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate

Missed or Late Academic Requirements due to Student Absence

As per Senate decision instructors may not require medical notes of students who must miss an academic requirement, **including the final exam**, for courses offered during fall or winter 2020-21 (until April 30, 2021). Information on regular policy, including the use of the Student Declaration of Absence can be found here: https://www.dal.ca/dept/university_secretariat/policies/academic/missed-or-late-academic-requirements-due-to-student-absence.html.

Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of 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. **Information:** https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).

Information: https://www.dal.ca/campus_life/academic-support/accessibility.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.

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

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

Statement: <http://www.dal.ca/cultureofrespect.html>

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 (1321 Edward St) (elders@dal.ca).

Information: https://www.dal.ca/campus_life/communities/indigenous.html

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

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

University Grading Practices

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

Student Resources and Support

Advising

General Advising https://www.dal.ca/campus_life/academic-support/advising.html

Science Program Advisors: <https://www.dal.ca/faculty/science/current-students/academic-advising.html>

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

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

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

Academic supports

Library: <https://libraries.dal.ca/>

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

Studying for Success: https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html

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

Fair Dealing Guidelines <https://libraries.dal.ca/services/copyright-office/fair-dealing.html>

Other supports and services

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

Student Advocacy: <https://dsu.ca/dsas>

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

Safety

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

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

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

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

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