Environmental Impact Assessment Syllabus

Department of Biology

BIOL/ENVS 4001 Fall 2023

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
Dr.rer.nat. Eslam (Sam) ALHOGARATY	es569394@dal.ca	Friday 12:00 pm-2:00 pm MS Teams
Dr.rer.nat. Eslam (Sam) ALHOGARATY	es569394@dal.ca	Friday 12:00 pm-2:00 pm MS Teams

Course Description

This course serves as the capstone to the EIA certificate. It is a hands-on training course that guides students through a nine-step framework for preparing individual EIAs on a physical project as well as a Strategic Environmental Assessment on a policy. International, national, provincial examples are introduced to illustrate the framework.

Course Prerequisites

ENVS 1100.03 and 1200.03 (or ENVS 1000X/Y.06) or BIOL 2060.03 (or BIOA 3001.03) or ERTH 2410.03 or GEOG 2100X/Y.06 or GEOG 2201.03 or GEOG 2202.03 or INTD 2001.03 or INTD 2002.03 or OCEA 2000X/Y.06 (or OCEA 2001.03 and OCEA 2002.03) or SUST 2000.06 or SUST 2001.06

Course Exclusions

CROSS-LISTING: ENVS 4001.03
RESTRICTIONS: E1, E2, & E3. This course is open to all 4th year students with necessary prerequisites.

Student Resources

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

Course Structure

Course Assess Online Course Delivery and Other Requirements:

1. You will need a computer to access website and course materials, and a camera and microphone for online meetings.

2. Students connecting to online resources from outside Canada are responsible for ensuring awareness and compliance with any applicable laws in the country from which they are connecting.

3. Assignments 1-3 will be submitted typed online for originality checking by 11:59 pm AST on date due via Brightspace. Points will be deducted for lateness.

4. One multiple choice test will be conducted online on Brightspace.

5. There are no synchronous components and no ungraded components except tutorials are online at scheduled days and times according to the tutorial group you registered for: T01-T05. No course components require on-campus attendance.

Course Delivery

Method of course delivery (synchronous online, asynchronous online, blended).

Lectures

01	Lec	3	T0				C/D	Online-ASYNCHRONOUS SESSION

Laboratories

N/A

Tutorials

T01	Tut	0	L0		W		1635-1725	Online-SYNCHRONOUS SESSION
T02	Tut	0	L0		W		1535-1625	Online-SYNCHRONOUS SESSION
T03	Tut	0	L0			R	1435-1525	Online-SYNCHRONOUS SESSION
T04	Tut	0	L0			R	1535-1625	Online-SYNCHRONOUS SESSION
T05	Tut	0	L0			R	1735-1825	Online-SYNCHRONOUS SESSION

Course Materials

- Required textbook(s) Bram-Noble Introduction to Environmental Impact Assessment (4th Edition) 2021, can be purchased as an e-book on our class website after an initial trial period.
- See course Brightspace page under Content tab for Panopto lectures that are captioned. Slides are posted separately.
- e-journal articles from Dalhousie Library
- Any online platforms outside Brightspace-Microsoft Teams: Office 365 for one-on-one meetings.

Assessment

Assignments

Component	Weight (% of final grade)	Date Due
Assignment 1	25	Oct 9
Assignment 2	25	Nov 20
Test (multiple choice-online Brightspace)	20	Nov 7
Assignment 3 (SEA)	14	Dec 6
Tutorials (8 x 2Pts.)	16	Marked in tutorial at your scheduled day and time
Total	100	

Tests/quizzes

The course has one multiple choice test which will be delivered online Brightspace with a weight of 20%.

Final exam

N/A

Other course requirements

N/A

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 (See also university policies and websites on last pages of this syllabus.)

Grading and Marking

You will not receive a letter grade lower than what is indicated for your final point value listed above, although the professor reserves the right to give you a higher grade. Because the scale is generous for A's and B's (30 points) as compared to C's and D's (20 points), individual marks will only be rounded up if the student has more than 0.50 above the maximum value for a particular letter grade. For example, if you received 79.51 points, you would receive an A- in the class and not a B+. If you received 79.49 points, you would receive a B+ and not an A-. The final grade that you receive in a class is the total of the work that you did and the knowledge that you gained. A grade is something that you earn. If you require a final grade at a particular level for an honours degree, job, graduate or professional school, or other purpose, you should ensure that you put the time and effort in during the term to earn that grade. The Professor is willing to give you extra help and study assignments if you believe that you are not achieving a satisfactory level of proficiency in the class. Please do not come at the end of the term requesting a higher grade because you need it to fulfil a requirement, enter graduate school, you worked hard, or because you paid your tuition. These are not satisfactory reasons. It is unfair to the other students in the class who have done the work, and to the university, which needs to maintain fair and high standards of academic achievement. Although assignments will have a detailed point distribution for marking, the Teaching Assistant has discretionary power to deduct additional points (up to 10%) for overall sloppy writing, poor grammar and spelling, messy format, inadequate referencing, and overall inferior quality of the assignment. All assignments are to be typed and spell & grammar-checked before submission.

Course Policies on Missed or Late Academic Requirements

Absences, Lateness, and Missed Work

Use the Student Declaration of Absence form for missed academic requirements in this course if you are ill for more than 3 consecutive days (not 3 class days) as per university policy. A submission site for your declaration is given on the class website on Brightspace. Two submissions are permitted per term. The possibility of making up late work is at the discretion of the professor. "Students experiencing recurring long-term absences are strongly encouraged to meet with a Faculty or Declared Major Advisor, or Faculty Program Coordinator and refer to the University's Student Accommodation Policy." Any material submitted for evaluation after the designated deadline will have marks deducted at the rate of 10% per day late including weekends. Extensions without the mark penalty will be given only with a valid Student Declaration of Absence or other excuse as approved by the instructor, Ms. Rocchi. If you file a Student Declaration for a short-term absence from class, you need to follow-up with Ms. Rocchi on how the missing work is due. We do not have the possibility of offering alternative assignments or changes in weighting of points for requirements.

Course Policies related to Academic Integrity

Individual Work and Plagiarism

All work in this class is to be done individually except the online-tutorial discussions you may have with your tutorial members and Instructor on the Sable Island Ecotourism Project. Do not collaborate on the 3 assignments; they will be checked for originality. DO NOT SHOW ANYONE YOUR WORK or you too can be charged with plagiarism. All instances of suspected plagiarism will be reported promptly to the Academic Integrity Officer of the Faculty of Science.

Learning Objectives

At the end of this class, students will have an in-depth understanding of environmental assessment procedures and related legislation in Canada and be able to conduct an independent Environmental Impact Assessment of a project and a Strategic Environmental Assessment of a policy. They will be able to:

- Apply an EIA Framework for projects and physical works
- Explain EIA legislation at the Federal and Provincial levels
- Generate a detailed project description for your assigned project
- Identify Valued Environmental Components (VECs) in a range of ecosystems
- Design a meaningful stakeholder participation program
- Formulate reasonable bounds for various impact categories
- Apply several environmental impact and risk methodologies
- Predict environmental impacts accurately
- Design Environmental Management Plans including mitigation, enhancement,
- compensation, monitoring, and accountability
- Assess residual impacts for decision makers and make recommendations
- Evaluate an existing EIA, identify strengths and weaknesses, and offer improvements
- Recommend project decision: acceptance, modification, or rejection
- Conduct a Strategic Environmental Assessment (SEA) framework for a policy
- Recommend appropriate management strategies to SEA decision-makers

Course Content

3 Assignments and 1 Test due at 11:55 AST on dates indicated.

Week	Date	Lesson Topic(s)	Reading/Assessment
1	Sept 6-10	A. Introduction to EIA B. EIA Federal Law Tutorial 1: Introduction to Project Assessment	NOBLE: Chapters 1, 2 Reading 1 Attend Tutorial 1
2	Sept 11-17	A. Project Description B. Scoping and Public Participation **Tutorial 2: Project Description**	NOBLE: Chapter 10 Reading 2 Attend Tutorial 2
3	Sept 18-24	A. Description of Physical Environment Watershed Dynamics **Tutorial 3: Selecting Physical VECs**	NOBLE: Chapter 3, 4 Reading 3 Attend Tutorial 3
4	Sept 25-Oct 1	A. Description of Biological Environment B. Social Impact Assessment **Tutorial 4: Selecting Biological & Social VECs**	NOBLE: Chapter 5 Reading 4 Attend Tutorial 4
5	Oct 2-8	A. Environmental Baseline & Bounding B. Assessing Impacts-Methods **Tutorial 5: Bounding & Impact Identification**	NOBLE: Chapter 6 Reading 5 Attend Tutorial 5 **ASSIGNMENT 1 DUE ONLINE: AT 11:59 pm, Oct. 9**
6	Oct 9-15	A. Assessing Risks-Methods B. Cumulative Effects Assessment **Tutorial 6: Cumulative Effects Assessment & Ranking Risks Exercise**	NOBLE: Chapters 8, 11 Reading 6A and 6B Attend Tutorial 6
7	Oct 16-22	A. Environmental Management Plan **Tutorial 7: Environmental Management Plan**	NOBLE: Chapter 7, 9 Reading 7 Attend Tutorial 7
8	Oct 23-29	7. (Con't.) Practical Aspects of Environmental Management & Working in EIA in Ontario-Ann Rocchi	NOBLE: Chapters 13, 14 Reading 8
9	Oct 30-Nov 5	Study for test	**ONLINE TEST Nov 7**
Nov 13-17 STUDY BREAK			
10	Nov 20-26	A. Introduction to Strategic Environmental Assessment B. Setting the SEA context-ID alternatives **Tutorial 8 (Week 10): SEA for a Policy** Assignment 3 posted: SEA OF A POLICY	NOBLE: Chapter 12 Reading 10 Attend Tutorial 8 **ASSIGNMENT 2 DUE ONLINE: AT 11:59 pm, Nov. 20**
11	Nov 27-Dec 3	Dr. ALHOGARATY will answer questions on Assignment 3 On the discussion board	
12	Dec 4-10	**Assignment 3 (SEA) DUE ONLINE AT 11:59 pm December 6**	

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.