

Faculty of Science Course Syllabus (Section A) (revised June 2020)
Department of Biology
BIOL/ENVS 4001 Environmental Impact Assessment
Fall 2020

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Office hours by appointment on Microsoft Teams

Lectures: *asynchronous, lecture and slides posted on Brightspace*

Tutorials: *asynchronous, tutorial videos, and discussion groups on Brightspace*

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 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 EARTH 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

CROSS-LISTING: ENVS 4001.03

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

Learning Objectives/Outcomes 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:

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

Course Materials and Communications

- Required textbook(s) Bram-Noble Introduction to Environmental Impact Assessment (3rd Edition) 2015, can be purchased as an e-book on our class website after an initial trial period.
- Course Brightspace page with Panopto and Collaborate Ultra.
- e-journal articles from Dalhousie Library
- Any online platforms outside Brightspace-Microsoft Teams – Office 365 & Zoom
- Email-class messages, reminders, and announcements will be sent to all students via Brightspace but a student should email Dr. Lane (patricia.lane@dal.ca) to ask a question directly, set up a virtual meeting, etc.
- A student should email their Teaching Assistant directly to ask a question about tutorial or any associated issues like lateness in submitting a tutorial. Each student will be assigned one of the TAs at the beginning of term by alphabetical order.

Course Assessment

Component	Weight (% of final grade)	Date Due
Assignment 1	25	Oct 10
Assignment 2	25	Nov 21
Test 1 (take home on EIA Critique)	20	Nov 7
Test 2 (take-home on SEA)	14	Dec 5
Tutorial Assignments (8 x 2Pts.)	16	Sept 13, 20, 27, Oct 4, 11, 18, 25, Nov 21
Total	100	

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Other course requirements:

1. There are no synchronous components and no ungraded components.
2. Assignments 1 and 2, Tests 1 and 2, and 8 Tutorials will be submitted typed online for Urkund checking by 11:59 pm on date due. Points will be deducted for lateness.

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 (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.

Absences 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."

We do not have the possibility of offering alternative assignments or changes in weighting of points per requirement.

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 Teaching Assistant on the Sable Island Ecotourism Project. Your 8 tutorial submissions, however, should be your own individual work and will be checked for originality by Urkund. Do not collaborate on assignments or tests; they will also be checked for originality by Urkund. All instances of suspected plagiarism will be reported promptly to the Academic Integrity Officer of the Faculty of Science.

Late Assignments and Extensions:

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 professor. If you file a Student Declaration for a short-term absence from class, you need to follow-up with Dr. Lane on how the missing work will be treated for the 2 tests and 2 major assignments and follow-up with your Teaching Assistant for late tutorial assignments (8).

BIOL/ENVS 4001 Environmental Impact Assessment 2020 CLASS SCHEDULE

*Tutorial due each week with a tutorial at 11:59 pm Atlantic Standard Time on 1st Sunday after end of week as listed below. 2 Assignments and 2 Tests due at 11:55 AST on end of week on Saturday.

Week	PART 1 PROJECT EIA	Assignments
1 Sept 8-12	A. Introduction to EIA B. EIA Federal Law Tutorial 1: Introduction to Project Assessment	NOBLE: Chapters 1, 2 Reading 1 Tutorial 1 due: 11:59 pm Sept 13 Sun.
2 Sept 13-19	A. Project Description B. Scoping and Public Participation Tutorial 2: Project Description	NOBLE: Chapter 10 Reading 2 Tutorial 2 due: 11:59 pm Sept 20 Sun.
3 Sept 20-26	A. Description of Physical Environment B. Watershed Dynamics Tutorial 3: Selecting Physical VECs	NOBLE: Chapter 4 Reading 3 Tutorial 3 due: 11:59 pm Sept 27 Sun.
4 Sept 27 Oct 3	A. Description of Biological Environment B. Social Impact Assessment Tutorial 4: Selecting Biological & Social VECs	NOBLE: Chapter 5 Reading 4 Tutorial 4 due: 11:59 pm Oct 4 Sun.
5 Oct 4-10	A. Environmental Baseline & Bounding B. Assessing Impacts-Methods Tutorial 5: Bounding & Impact Identification	NOBLE: Chapter 3, 6 Reading 5 Tutorial 5 due: 11:59 pm Oct 11 Sun. ASSIGNMENT NO. 1 DUE ONLINE October 10: 11:59 pm Sat.
6 Oct 11-17	A. Assessing Risks-Methods B. Cumulative Effects Assessment Tutorial 6: CEs & Ranking Risks Exercise	NOBLE: Chapters 8, 11 Reading 6A and 6B Tutorial 6 due: 11:59 pm Oct 18-Sun.
7 Oct 18-24	A. Environmental Management Plan Tutorial 7: Environmental Management Plan	NOBLE: Chapter 7, 9 Reading 7 Tutorial 7 due: 11:59 pm Oct 25-Sun.
8 Oct 25-31	Guest Lectures 1, 2, and 3 Assign: TEST 1 PROJECT EIA TAKE HOME TEST	NOBLE: Chapters 13, 14 Reading 8
9 Nov 1-7	TEST 1 DUE ONLINE AT 11:59 pm November 7	TEST 1
Nov 8-14	STUDY BREAK	STUDY BREAK
PART II. STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)		
10 Nov 15-21	A. Introduction to Strategic Environmental Assessment B. Setting the SEA context-ID alternatives Tutorial 8: SEA for a Policy Assign: TEST 2: SEA OF A POLICY TAKE HOME TEST	NOBLE: Chapter 12 Reading 10 Tutorial 10 due: 11:59 pm Nov 22-Sun. ASSIGNMENT NO. 2 DUE ONLINE: November 21: 11:59 pm Sat.
11 Nov 22-28	A. Guest Lectures 4 and 5 B. Dr. Lane will answer questions on Test 2	
12 Nov 29-Dec 3	TEST 2 SEA DUE ONLINE AT 11:59 pm December 5 (Saturday)	

Faculty of Science Course Syllabus (Section B) (revised June-2020)

Fall 2020

BIOL/ENVS 4001 Environmental Impact Assessment

Course Syllabus, Section A.

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>