Faculty of Science Course Syllabus (Section A)
Department of Biology
BIOL/ENVS 4001 Environmental Impact Assessment
Fall 2022

Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people.

Instructor(s): Patricia Lane (lecture content), Ann Rocchi (tutorial content) e-mail:patricia.lane@dal.ca

Office hours by appointment on Microsoft Teams

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

Tutorials: ***synchronous 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 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

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 and make recommendations
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 (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.
- Email-class messages, reminders, discussion board questions, and announcements will be sent to all students via Brightspace.
- A student should post only to the discussion board to ask a question about class content or procedures. Questions will not be answered via Dr. Lane's personal email.
- A student should request a virtual meeting by contacting Dr. Lane at Patricia.Lane@Dal.Ca
- A student should email Ann Rocchi directly to ask a question about tutorial or any associated issues such as missing work/ lateness in submitting a tutorial, test, or assignment.
- Each student will be assigned one Project to assess for Assignment 1 and 2, and one Marker at the beginning of term. Projects and markers cannot be substituted.
- A student should email the Marker directly to ask a question about the marking of a quiz or assignment.

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 Assessment

Component	**Weight (% of final grade)**	**Date Due**
Assignment 1	25	Oct 9
Assignment 2	25	Nov 13
Test (multiple choice-online Brightspace)	20	Oct 26
Assignment 3 (SEA)	14	Dec 6
Tutorials (8 x 2Pts.)	16	Marked in tutorial at your scheduled day and time
Total	100	

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)	

BIOL/ENVS 4001 Environmental Impact Assessment 2022 CLASS SCHEDULE/CONTENT

***Tutorial due each week with a tutorial at 11:59 pm Atlantic Standard Time on 1st Sunday after end of week as listed below. 3 Assignments and 1 Test due at 11:55 AST on dates indicated.**

Week	Lecture & Tutorial Topics	Assignments
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 B. 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 NO. 1 DUE ONLINE: AT 11:59 pm, Oct. 9**
6 Oct 9-15	A. Assessing Risks-Methods B. Cumulative Effects Assessment Tutorial 6: CEs & 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	**TEST DUE ONLINE Oct 26 Wednesday (Multiple Choice)**
Nov 7-11	STUDY BREAK	STUDY BREAK
10 Nov 13-19	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 NO. 2 DUE ONLINE: AT 11:59 pm, Nov. 13**
11 Nov 20-26	Dr. Lane will answer questions on Assignment 3 On the discussion board	
12 Nov 27-Dec 7	**Assignment NO. 3 SEA DUE ONLINE AT 11:59 pm December 6 (Tuesday)**	

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.

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.

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.

Faculty of Science Course Syllabus (Section B) **(revised April-2022)**

Fall/Winter 2022-23

BIOL/ENVS 4001 Environmental Impact Assessment

University Policies and Statements

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

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://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=117&chapterid=-1&topicgroupid=31821&loaduseredits=False

University Grading Practices

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

Faculty of Science Course Syllabus (Section C) **(revised April-2022)**

Fall/Winter 2022-23

BIOL/ENVS 4001 Environmental Impact Assessment

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/undergrad-students/degree-planning.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.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

Dalhousie COVID-19 information and updates: https://www.dal.ca/covid-19-information-and-updates.html