

Faculty of Science Course Syllabus Department of Economics Econ3335.03: Environmental Economics 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.

Instructor: Ruth Forsdyke, <u>Ruth.Forsdyke@Dal.ca</u>, (902) 494-6990

Lectures: Tues, Thurs 4:05 pm - 5:25 pm, LSC Common Area, Room C244

Office Hours (Prof.):

Monday: 10:30 - 11:20 am (online via Collaborate, access via Brightspace)

Friday: 10:30 - 11:20 am (real, room C12 Maxwell House)

Teaching Assistant: Yu Jiang, YuJiang@dal.ca

Office Hours (TAs): TBA

Course Delivery: In person, lectures not recorded

Part A: Course Information

1_ Course Description (Calendar)

This course serves as an introduction to environmental economics. Topics include social decision-making, externalities and public goods, regulatory approaches (standards, charges, tradable permits), forms of value derived from the environment and measurement techniques.

2_ Course Prerequisites

ECON 2200.03 or 2220.03 with minimum grade of C.

3_ Course Description (Longer)

Although our industrial fossil fuel-powered economy has greatly increased the material affluence of much of humankind, this has been and continues to be at great cost to our natural environment. Current problems include: atmospheric greenhouse gases (GHGs) causing global warming, climate change, and ocean acidification; ozone layer depletion; health and ecosystem damaging air and water pollutants including persistent toxins, radiation, and micro-plastics; and the destruction of natural ecosystems with massive rates of biodiversity loss including species extinctions, and overpopulation. These problems greatly compromise the health of the biosphere which provides life support for the human economy.

Directing our economies towards sustainability such that they "meet the needs of the present generations while not compromising those of the future" (Brundtland Report, 1987) poses a great and urgent challenge

in a world in which there are many other urgent problems such as wars, endemic undernourishment, famines, deaths due to treatable diseases, uncured diseases, and high rates of illiteracy.

Part I considers environmental problems as social problems with social solutions, which work by changing private incentives so that people take into account "external costs" the costs of their decisions upon other "third" parties. We illustrate using an example of network externalities in city transport systems.

Part II investigates sustainable economic systems including a case study of the collapsed civilization of Easter Island, Malthus's theory of population, carrying capacity and ecological footprints, "limits to growth", and circular vs. linear production systems.

Part III investigates Pigou's framework, which illustrates that markets fail to be efficient when there are negative externalities but can be corrected with policies. The collapse of the East Coast cod fishery is explained as an "open access problem" and positive externalities are examined in the context of pollinators (ex. bees) and are related to public good provision problems. The marginal abatement cost/ marginal damage (MAC-MD) analytical framework is then developed.

Part IV investigates how environmental damages and abatement costs are measured and used in social cost benefit analysis.

Part V looks at environmental policy. First we consider decentralized solutions (property rights, liability approaches, and green goods) and show these are insufficient such that centralized government policies are required. The latter include pollution taxes, emissions and technology standards, cap and trade, and educational/moral suasion policies. Policies are then compared.

Part VI investigates global environmental problems which require global policy cooperation, for example to prevent business from relocating in "pollution havens" (countries or regions with lax environmental policies). We consider global environmental agreements and ways to alter trade agreements to protect the environment.

4_ Course Objectives/Learning Outcomes

- Explain externalities as a social cause of environmental problems and illustrate with examples.
- Use mathematical and graphical models to illustrate how markets fail to protect the environment and how environmental policy works. Be able to explain the graphs using language.
- Explain reasons for limits to growth and implications for economies.
- Explain the environmental quality consumption benefit trade-off utilized by environmental economists and its limitations.
- Practice solving problems using microeconomics.
- Identify and understand various "welfare criteria" used to judge environmental policies, and explain the positive -normative distinction using examples to illustrate.
- Explain methods of monetizing environmental damages and abatement costs, how these are aggregated in cost benefit and cost-effective analysis and pros and cons of these methods.
- Use MAC-MD framework to determine socially efficient prices and levels of pollutants and compare environmental policies using a variety of criteria.
- Learn about a variety of environmental problems and appreciate their seriousness and urgency.
- Understand that humans depend on healthy ecosystems to have a life support system and that these are seriously compromised by current production systems and consumption practices.
- Improve skills in critical thinking and gain genuine confidence in your ability to learn on your own.
- Appreciate your own environmental impact and learn ways to reduce it.

"Education is a process of living, and not a preparation for future living" -- John Dewey. "The human mind is our fundamental resource" John F. Kennedy

5_ Course Materials

<u>Required</u> Textbook:

Field, B.C. & Field M.K.(2021) *Environmental Economics: An Introduction* McGraw-Hill Education, 8th edition.

e-book is available at the following link:

https://bookstore.dal.ca/CourseSearch/?course[]=SUB,FALL20,ECON,ECON3335,&

(or earlier editions)

OR

Olewiler, N. & Field, B. (2015) *Environmental Economics: 4th Canadian Edition*, McGraw – Hill Ryerson, Toronto (2nd,3rd or 4th ed)

* As the Canadian edition is no longer available, the American edition (F&F) will be used. Either edition is fine for this course and readings are provided for both.

- Other course materials are available on *Brightspace* include slides, videos, notes for some topics, and links to internet media.

Library Reserves (supplementary material):

Examples of books on reserve include:

Daly, H.E. & Farley, J.C. (2011) *Ecological Economics: Principles and Applications*, Island Press, Washington.

Diamond, Jared (2005) *Collapse: How Societies Choose to Fail or Succeed*, Viking Press Gore, Al (2005) *Earth in the Balance*, Rodale, USA.

Gore, Al (2007) An Inconvenient Truth, Rodale, USA.

Mann, M.E. & Kump, L.R. *Dire Predictions: Understanding Climate Change*, 2nd ed., Pearson Books. Rees and Wackernagel (1996) *Our Ecological Footprint: Reducing Human Impact on Earth*, New Society Publishers

Olewilier N.D., and Field, B.C. (2011) Environmental Economics, 3rd Canadian ed., McGraw-Hill-Ryerson

Tietenberg, T.H. & Lewis (2006) Environmental and Natural Resource Economics: 7th ed., Pearson Books.

6_ Course Assessment

Component	Weight (% of final grade)	Date, Details
Midterm	25	Tues Oct. 24th in class
Final Exam	45	Scheduled by Registrar
Assignments	30	Best 3 out of 4 (2 prior to midterm and two after)

Conversion of numerical grades to Final Letter Grades follows the <u>Dalhousie Common Grade</u> <u>Scale</u>

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)		

7_ Details on Course Work and Assessment

Lectures and Questions:

You are encouraged to ask questions during class, or/ and on the discussion board, and during office hours. If your question is likely to be of general interest to the class, we recommend asking during class or on the Brightspace Discussion board. However, you may **email** your questions to the TAs or professor particularly if the question is of a private nature or is not likely to be of general interest to the class.

Lecture Slides/ Covid Videos:

The lecture slides will be posted after class. I will also post videos that were produced during the Covid lockdown, the "covid videos". Note that although these may be helpful if you need to miss classes due to illness, or to review material previously covered in class, they should be regarded as highly imperfect substitutes for real in-class lectures and may differ in coverage or emphasis. Also, any information in the videos regarding dates (ex. assignment due dates, test dates) or statements like "next week we will cover" should be disregarded as they applied to the time period of the Covid Lockdowns.

Midterm and Final Exam: The midterm is held in class and the final exam is scheduled by the Registrar and both are on campus.

Assignments: Your grade will be the average of the best 3 out of 4 assignments. One of the best ways to learn is to teach and you may wish to work together on assignments. However, *you must hand in an individual assignment, which must be written in your own words. If you worked in a group, please write down other group members, names on top right hand side of assignment. Submit via Brightspace Assessments>>Assignments.*

Practice Problem Sets: These are provided for practice and are <u>NOT to be submitted for grade</u>. **Answers** are posted so you can check your answers if you get stuck in order to help you to see how to proceed. However, do your best to try the problem on your own before peaking at the answers as you will likely learn more!

Discussion Board: Participate in the Brightspace discussion forums by means such as asking a question, making a comment, relating class content to real world events, or responding to posts made by the professor, TAs, or other students, and/or posting links to useful information. You may either use your name or participate anonymously (meaning that other class members will not know who you are, but the professor and teaching assistants will know your name).

Office Hours: There are a mixture of online and real office hours (see above). If you are unable to make these hours and have a question, please email the professor or TAs to set up an appointment. Dependent upon Covid conditions, office hours may be moved entirely Online.

Virtual Rooms (Collaborate): These are used for office hours and meetings and allow students to interact via video, audio, and chat. A room will be open all the time for meetings.

8_ Course Schedule & Topics (tentative as time permits)

Readings either F&F or O&F (for details, see required textbook above)

- F&F refers to Field and Field (2021) (paper or e-book)
- O&F refers to Olewiler & Field, (Canadian Ed.)

- "*" = highly recommended background reading, "no *" = supplementary background reading such as papers referred to in slides. Background readings will help you to place lecture material into a broader context. Focus on material covered in slides.

	Lecture Topic	Readings
Part I: Int	troductory	
	 L1) Introduction: What is Environmental Economics? Why is it important? How will we study it. Types of Problems, Social Source of the Problem, Externalities, 	* F&F, ch. 1, ch.2 (pg. 27-38) or * O&F, ch. 1 (4 th ed. pg. 1-16, 27-38) (3 rd ed. pg. 1-15, 25-35) - Harden, Garrett (1960) The Tragedy of the Commons

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	L2) Environmental Problems as Social Problems (Network externalities in city transport)	* online note * F&F or O&F, Ch. 2, Fig. 2.1 (compare with Daly Diagram)
Part II: S	Sustainable Economic Systems	
	L3)Collapse: Case Study Easter Island	 * Diamond, Jared (1995) Easter's End, Discover Magazine http://discovermagazine.com/1995/aug/eastersend543 - Diamond, Jared (2005) Collapse: How Societies Choose to Fail or Succeed, Ch. 2 "Twilight at Easter" - Brander, James and Taylor, S.M. (Mar. 1998) The Simple Economics of Easter Island: A Ricardo-Malthus Model of Renewable Resource Use, American Economic Review, 88(1), pg 119 – 138 (difficult math but quite readable).
	L4) Limits to Growth, 1st Linear vs. Circular Economies, and Misperceptions.	 * F&F,ch. 2 (pg. 22-32) or O&F, Ch. 1, pg. 15-19, Ch. 2 * Annie Leonard, The Story of Stuff (Video, 20 min.) <u>http://www.storyofstuff.com/</u> - Daly, Herman (1999) Uneconomic Growth in Theory and in Fact, <i>The First Annual Feastra Lecture</i>, Trinity College Dublin. <u>http://www.feasta.org/documents/feastareview/daly.htm</u> - Boulding, Kenneth (1966) The Economics of Coming Space Ship Earth, in Daly, Herman and Kenneth Townsend, <i>Valuing the Earth, Economics, Ecology, Ethics</i>, pg. 297-310. <u>http://www.ub.edu/prometheus21/articulos/obsprometheus/B</u> OULDING.pdf
	L5) Malthusian Dilemma, Steady States, Carrying Capacity, and Ecological Footprints	 * Rees, William E. (2006), <i>Ecological Footprints and Bio-Capacity: Essential Elements in Sustainability Assessment</i> http://www.ecoglobe.ch/footprint/e/rees2006.htm - Malthus, Thomas (1778) <i>An Essay On the Principle of</i> <i>Population</i> https://www.econlib.org/library/Malthus/malPop.html - Arrow, Kenneth et. al. (1996) Economic Growth, Carrying Capacity and the Environment, <i>Ecological Applications</i>, 6(1), pg. 13-14.
Part III -	- Externalities, Key Concepts and Analyt	ical Framework
	L6) Private Efficiency and Markets	* F&F (ch. 3, ch. 4, pg. 60 - 65) or O&F 4th ed. (ch. 3 & ch. 4, pg. 57 - 61)
	L7) Negative Externalities and Market Failure (Social Efficiency) {Case study: Agriculture}	 * F&F, ch. 4 or O&F, ch. 4 * Stavins, R. & Fullerton, D. (1998) How Economists see the Environment, <i>Nature</i>, 395, 433- 434. http://works.bepress.com/cgi/viewcontent.cgi?article=1019& context=don_fullerton Pigou, A.C. (1952) <i>The Economics of Welfare</i>, Transaction Publishers, New Brunswick, New Jersey,http://books.google.com/books?id=bQUDtmh7uxQC & printsec=frontcover#v=onepage&q=&f=false Balmford A., Green R., Phalen, B. (2012) What Conservationalists Need to Know About Farming, <i>Proceedings of the Royal Society</i>, B, 279, pg. 2714-2724. Pimenthal, David (2005) "Environmental and Economic Costs of the Application of Pesticides Primarily in the United States", <i>Environment, Development and Sustainability</i>, 7, 229-252<u>link to paper</u> Bourguet, D. & Guillemaud, T.(2016) The Hidden and External Costs of Pesticide Use, <i>Sustainable Agriculture Reviews</i>, 19. <u>link to paper</u> Rachel Carson (1962) Silent Spring-1, <i>The New Yorker</i> <u>https://www.newyorker.com/magazine/1962/06/16/silent-spring-part-1</u>

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L8) Open Access Problems (Case Study, The Collapse of the East Coast Cod Fishery)	 * F&F, Ch. 4, pg. 70-72 or O&F, ch. 4, pg. 65 - 67 * Harden, Garrett (1960) "Tragedy of Freedom on a Commons" http://dieoff.org/page95.htm {please read at least the first 5 paragraphs} * H. Scott Gordon (1954) pg. 88-99 A Common Property Resource: The Fishery, The Journal of Political Economy, 62 (2), pg. 124-142 [lecture mainly based on this paper] http://faculty.arts.ubc.ca/gmunro/472gord.pdf) Reed, W.J. (1991) Discussion: Bioeconomics. An Essay on the Classic Papers of H. Scott Gordon, Milner B. Schaeffer and Harold Hotelling, <i>Bulletin of Mathematical Biology</i>, 53(1/2), pg. 217-229 [for math students] http://www.springerlink.com/content/254r23683x643x48/)
L9) External Benefits and Market Failure (Case Study, Bees, Butterflies and Other Insects)	* F&F, pg. 67-68 or O&F, pg. 72-73
L10) Public Goods (Case Study, Nature Conservatories, Information)	* F&F, Ch. 4, pg. 68 - 73 or O&F, Ch. 4, pg. 68 - 73
L11) MAC MD Framework (Case Study, Persistent Toxins)	*F&F or O&F, Ch. 5 ch. 11 (standards, pg. 194-201), Ch. 12 (taxes and subsidies, pg. 212-218) O&F, Ch. 5, ch. 11 (standards, pg. 203-212), ch. 12 (taxes and subsidies, pg. 225-231)
Part IV: Social Cost Benefit Analysis	
L12) Social Cost Benefit Analysis (Case Study, 3 Gorges Dam)	 F&F or O&F (ch. 6, Benefits Valuation, O&F, ch.7, Cost Valuation O&F, ch. 8.) * Morimoto, R & Hope (2003) Applying a CBA Model to the Three Gorges Dam Project in China, Judge Institute of Management, University of Cambridge, Trumpington St. Cambridge UK. * Dong, Yanyan (Sept, 2010) Contingent Valuation of Yangtze Finless Porpoises in Poyang Lake, China, * Lavaine, Emmanuelle (January, 2013) The Price of Pollution and Health: An Hedonic Approach, preliminary, Paris School of Economics.
Part V:Policy Analysis	
L13) Criteria for Policy Analysis & Decentralized Policies I (Coasian Property Rights Solutions)	F&F or O&F (Ch. 9, Ch. 10) Bentham, Jeremy (1789) <i>The Principles of Morals and</i> <i>Legislation</i> (1789) Ch I, p. 1-5 http://books.google.ca/books?id=EfQJAAAAIAAJ&printsec =frontcover&dq=the+principles+of+morals+and+legislation &source=bl&ots=nByXL8 ngMA&sig=bywMPtoxgaTnxUz- ReWfB2h3Abo&hl=en&ei=f34jTfLxFIH78Ab6- unsDQ&sa=X&oi=book_result&ct=result&resnum=3&ved= 0CCgQ6AEwAg#v=onepage&q&f=false Happiness (and how to measure it), <i>The Economist</i> , (Dec. 19th, 2006) http://www.economist.com/node/8450035?story_id=8450035
L14) – Decentralized Policies II (Liability Approaches, Green Goods and Moral Suasion)	F&F or O&F, Ch. 10 * Ronald H. Coase (1960) The Problem of Social Cost, <i>Journal of Law and Economics</i> , pg. 1-44 Movie clip, <i>A Civil Action</i>
 L15) Cap and Trade (US SO₂ market) a) How it works. b) Monetary cost effectiveness c) Other centralized policy comparisons. 	F&F or O&F, Ch. 13 F&F, ch. 11 (standards, 200-211), ch. 12 (taxes, 218-233), ch. 13 (cap & trade, 243-249) or O&F, ch. 11 (standards, 211-222), ch. 12 (taxes, 231-242), ch. 13 (cap & trade, 248-257)
L16) Policy Comparisons Under Uncertainty	O&F, ch. 14 (will be posted) * Weitzman, M.L. (1974) Prices vs.Quantities, <i>Review of</i> <i>Economics Studies</i> , pg. 477 -491 <u>http://scholar.harvard.edu/weitzman/files/prices_vs_quantitie</u> <u>s.pdf</u>

Part VI –	Cross Boundary Pollution	
	L17) Environmental Problems as Prisoner's Dilemmas	F&F, Ch. 19, O&F, ch. 20 Barrett, Scott (Spring, 1990) The Problem of Global Environmental Protection, <i>Oxford Review of Economic</i> <i>Policy</i> , 6(1), pg. 68 - 79
	L18) Trade and the Environment	slides

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9_ How to Learn in this Course

- attend all lectures (unless sick), pay attention, and take notes. Taking notes may help you to pay attention and to learn the material due to forcing you to try to understand the content in order to write it down concisely. Audio reinforcement may help you to learn.
- read through course syllabus to get an overview of what lies ahead.
- manage your time -- make a schedule, record due dates in your planner and set aside times to study.
- avoid distractions such as social media while studying.
- After logging into Brightspace, check Announcements for new information.
- do all assignments
- read and work through the textbook readings for overview and to understand concepts in lecture slides. Use the lectures and slides to guide your focus. Slides and posted "Covid Videos" may help you to review points from the lectures and go over any points you had difficulty with during class. You may benefit from taking notes that organize the material in a manner that makes sense to you and relates the material to prior knowledge. Charts, flow charts and mind maps may be helpful. Work through the mathematical problems and write down and/or talk through the method used. Make summaries to identify key points.
- watch videos if you need to miss lectures due to illness and find out what you missed in class by asking other students and/or visiting the professor's office hours.
- After working through similar examples in the slides, put in a good effort to do the practice problems on your own. If you get stuck, peak at the solution and then try on your own again. Repeat as necessary. Note down where you went wrong in your initial attempt.
- relate course concepts to other things you know.
- ask questions while studying, in office hours and on discussion boards.
- start studying early for tests. Do review sheet problems.
- explain concepts to yourself and other students. Test yourself.
- If you are having trouble focussing your study, please visit office hours for advice.

10_ Course Policies

1) Students are responsible for *CHECKING THE FINAL EXAM SCHEDULE PRIOR to booking any flights*. There are *NO EARLY EXAMS under ANY circumstances*.

2) *Late or Missed Midterms or Assignments:* If you miss a midterm or assignment due to illness, as soon as possible, please inform the professor via email and include a signed **Student Declaration of Absence (DOA) form.** Be sure to read the form carefully. This form may only be used twice for this course. These are available at:

https://www.dal.ca/dept/university_secretariat/policies/academic/missed-or-late-academicrequirements-due-to-student-absence.html

3) In the case of a *missed midterm*, other evaluation components will be given higher weight. There is no make-up midterm.

4) If the *final exam is missed due to illness*, please inform the professor by email as soon as possible to arrange to write an alternative exam.

5) *Late assignments* receive a *maximum penalty of 5% per day*, unless the student submits a DOA form and *will not be accepted after answers have been posted on the Brightspace*.

6) *Class slides* should be regarded as complements as opposed to substitutes for reading the textbook. When you read the textbook, with pencil and paper, work through the examples.

7) Students are responsible for *checking Brightspace "Announcements" regularly*. Important information to guide learning as well as occasional corrections to assignments or test review questions are posted there.

8) *Online Access:* When connecting to online resources, you are responsible for observing any applicable laws of the country you are connecting from.

9) You are responsible for establishing whether you have access to all course material as soon as the term begins and before the ADD/DROP date. If you do not have access to certain material, inform the instructor as soon as possible. Alternative access methods are not guaranteed.

10) Students are expected to conduct themselves with academic integrity and should familiarize themselves with the University academic integrity policy at the link in Part B below. If you have questions, please ask the professor.

Part B: 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 <u>elders@dal.ca</u>. Additional information regarding the Indigenous Student Centre can be found at: <u>https://www.dal.ca/campus_life/communities/indigenous.html</u>

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: <u>https://www.dal.ca/about-dal/internationalization.html</u>

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: <u>https://www.dal.ca/dept/university_secretariat/academic-integrity.html</u>

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 (<u>https://www.dal.ca/campus_life/academic-support/accessibility.html</u>) 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 (<u>https://www.dal.ca/about-dal/agricultural-campus/student-success-centre.html</u>)

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

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: <u>https://www.dal.ca/dept/university_secretariat/policies/academic/fair-dealing-policy-.html</u>

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.