



UNIVERSITY  
OF MANITOBA

**University of Manitoba**  
**Clayton H. Riddell Faculty of Environment, Earth and Resources**  
**Department of Environment and Geography**  
**Winter 2018**

**COURSE DETAILS**

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<b>Course Title &amp; Number</b>	<b>ENVR 3250 – ENVIRONMENTAL ASSESSMENT</b>
<b>Number of Credit Hours</b>	<b>3.0</b>
<b>Class Times &amp; Days of Week</b>	<b>Lecture: Tuesday/Thursdays 8:30 – 9:45 AM</b> <b>Lab: Thursdays 2:30 -5:30 PM (attendance is mandatory)</b>
<b>Location for Classes &amp; Labs</b>	<b>217 Wallace Building</b>
<b>Pre-Requisites</b>	A grade of “C” or better in [ABIZ 3550 (061.355) or ENVR 3160 or the former ENVR 3150] and [BIOL 2300 or BIOL 2301 or the former BOTN 2370 or the former BOTN 2371 or the former ZOOL 2370 or the former ZOOL 2371 or AGECE 2370] or [BIOL 2390 or the former BOTN 2280 or the former ZOOL 2290] or permission of department head.

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**INSTRUCTOR CONTACT INFORMATION**

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<b>Course and Lab Instructor(s) Name</b>	Crista Gladstone
<b>Office Hours or Availability</b>	After class or by appointment (typically Tuesdays or Thursdays)
<b>Email</b>	cristagladstone@gmail.com

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**TEXTBOOKS**

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<b>Required Textbook</b>	Noble, B.F. 2014. <i>Introduction to Environmental Impact Assessment: A Guide to Principles and Practice</i> , 3rd Edition. Don Mills: Oxford University Press. 360 pp.
<b>Lab Manual</b>	ENVR 3250 Lab Manual/Project Guide (available on UMLearn)
<b>Other</b>	Additional resources/reading materials and lecture notes will be posted online at least one day prior to the scheduled lecture whenever possible.

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**COURSE DESCRIPTION:** The theory, principles and practices of environmental assessment as a planning and decision-making process to identify and mitigate adverse effects of development projects. Environmental assessment is defined in the context of federal and provincial legislation, and applicable standards and guidelines. Laboratory assignments involve practical experiences, case study review, and basic report preparation.

**GENERAL COURSE OUTLINE:** Environmental Assessment (EA) is an important policy and regulatory tool used to integrate environmental concerns into decision-making about development. EA in simple terms is based on the idea of “looking before one leaps” to help ensure that better decisions are made, and is necessary for license and permit approvals for development projects in most of the countries across the world. EA is the process used to *predict, assess, evaluate, mitigate* and *follow up* on the consequences of human actions on the environment. It is intended as a proactive planning and management tool that can enable environmental protection, and can provide a platform for meaningful public participation and engagement in decision making processes.

**COURSE OBJECTIVES:** The purpose of this course (ENVR 3250) is to provide an overview of the theory, practice, and key issues in environmental assessment. The specific objectives for the course are:

- Provide awareness of environmental assessment principles, legislations, processes and practices.
- Examine how environmental assessments are carried out, with particular focus on how various stakeholders participate in the process, and how the results are used in decision making.
- Demonstrate application of environmental assessment through the life-cycle of a project including planning, design, construction, operation and decommissioning.

ENVR 3250 is a classroom lecture and laboratory/project course that examines EIA principles, legal requirements, practical exercises, example assessments and case study review. The lecture part of the course is presented in three parts a) brief history and background of EA, as well as its aims, objectives, principles and legislations; b) EA methods and procedures, and c) EA topics and case studies from other parts of Canada/world – as time permits.

**LAB ASSIGNMENTS:** The laboratory/project portion of the course involves conducting an environmental assessment on one of the several possible small to medium-sized projects. Students will work in teams to conduct the assessment, prepare an assessment report and present the results before the class. Worksheets are provided to assist students with various stages of an environmental assessment from scoping to report preparation. While students work in teams on their environmental assessments, they are encouraged to share their knowledge and exchange ideas about their project and EA methods, and also raise concern about possible environmental effects of other projects. Teams must submit a fully complete environmental assessment report at the end of the term to receive a grade for the course.

## METHOD OF EVALUATION

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<b>Class Assignments</b>	<b>10%</b> ( <i>Instructions and submission guidelines will be provided</i> )
<b>Midterm Exam</b>	<b>20%</b> ( <i>in class</i> )
<b>Lab Assignments</b>	<b>10%</b>
<b>Laboratory EA project</b>	<b>30%</b> (4/5 written report; 1/5 class presentation) ( <i>Instructions and submission guidelines will be provided</i> )
<b>Final Exam</b>	<b>30%</b> ( <i>scheduled by Student Records office</i> )

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*\*please note that in all the tests and exams, dictionaries, digital dictionaries, notes, books, textbooks, cell phones, etc. are strictly not allowed.*

**ASSIGNMENTS:** Assignment topics are based on practical use of legislation and public registries, and readings in environmental assessment topics. Information on the topics will be generally available online, in textbooks, periodicals, newspapers, magazines etc. as well as the Manitoba Public Registry, the Canadian Environmental Assessment Registry, and the internet.

Student teams are required to complete the laboratory assignment (i.e. worksheets and summaries of results) and submit the final report on the date specified by the Instructor. As required, some laboratory assignments may be marked by a TA; the final report will be marked by the Instructor.

**MID-TERM/FINAL EXAMS:** These tests may be comprised of definitions, fill-in-the-blank, multiple choice as well as short and/or long answer questions.

**POLICY REGARDING LATE ASSIGNMENTS:** Students will not be permitted to write make-up exams or hand in assignments late, except for documented medical or compassionate reasons.

**EVALUATIVE FEEDBACK:** Will be provided before the voluntary withdrawal deadline date which is March 16, 2018.

## GRADE NUMERICAL EQUIVALENT

A+	90% $\geq$
A	80-89%
B+	76-79%
B	70-75%
C+	66-69%
C	60-65%
D	50-59%
F	0-49%

**ACADEMIC DISHONESTY:** Copying of another student's assignment (or an Instructor's answer sheet from a previous year) or the submission of the same material for two or more courses is plagiarism. Plagiarism and other forms of cheating are prohibited. The source of Materials must be given and proper credit must be provided for all copied materials (e.g. parts from another person's assignment, the internet, a textbook or published literature). **Students should acquaint themselves with the University's policy on plagiarism and cheating and examination impersonation (see University of Manitoba General Calendar).**

Also note that GROUP PROJECTS ARE SUBJECT TO THE RULES OF ACADEMIC DISHONESTY:

- Group members must ensure that a group project adheres to the principles of academic integrity.
- Students should also be made aware of any specific instructions concerning study groups and individual assignments;
- The limits of collaboration on assignments should be defined as explicitly as possible; and
- All work is to be completed independently unless otherwise specified.

**EXPECTATIONS OF YOU:** All students are expected to:

- Attend all the classes and participate in discussions of the lecture topics
- Complete and submit lab work and assignments on time
- Actively and fully participate in the team exercise, report writing and presentation
- Raise relevant questions, queries, comments or suggestions during the class
- Read ahead and beyond the course requirement (taking notes during class and summarizing notes after class are strongly recommended)

**EXPECTATIONS OF ME:** You can expect me to:

- Provide clear instruction regarding my expectations of you and your work
- Make myself available
- Respond to emails in a timely manner (*I check them daily during weekdays*)
- Provide feedback on assignments, exams, etc. in a timely manner (*usually within two weeks, first assignment mark & midterm exam mark provided prior to VW date*)

**USING COPYRIGHTED MATERIAL:** Please respect copyright. We will use copyrighted content in this course. I have ensured that the content I use is appropriately acknowledged and is copied in accordance with copyright laws and University guidelines. Copyrighted works, including those created by me, are made available for private study and research and must not be distributed in any format without permission. Do not upload copyrighted works to a learning management system (such as UM Learn), or any website, unless an exception to the *Copyright Act* applies or written permission has been confirmed. For more information, see the University's Copyright Office website at <http://umanitoba.ca/copyright/> or contact [um\\_copyright@umanitoba.ca](mailto:um_copyright@umanitoba.ca).

**RECORDING CLASS LECTURES:** I and the University of Manitoba hold copyright over the course materials, presentations and lectures which form part of this course. **No audio or video recording of lectures or presentations is allowed** in any format, openly or surreptitiously, in whole or in part without permission. Course materials (both paper and digital) are for the participant's private study and research.

**COURSE TECHNOLOGY:** It is the general University of Manitoba policy that all technology resources are to be used in a responsible, efficient, ethical and legal manner. The student can use all technology in classroom setting only for educational purposes approved by instructor and/or the University of Manitoba Disability Services. Student should not participate in personal direct electronic messaging / posting activities (e-mail, texting, video or voice chat, wikis, blogs, social networking (e.g. Facebook) online and offline "gaming" during scheduled class time. If student is on call (emergency) the student should switch his/her cell phone on vibrate mode and leave the classroom before using it. (©S Kondrashov. Used with permission)

**STUDENT ACCESSIBILITY SERVICES:** If you are a student with a disability, please contact SAS for academic accommodation supports and services such as note-taking, interpreting, assistive technology and exam accommodations. Students who have, or think they may have, a disability (e.g. mental illness, learning, medical, hearing, injury-related, visual) are invited to contact SAS to arrange a confidential consultation.

*Student Accessibility Services* <http://umanitoba.ca/student/saa/accessibility/>  
520 University Centre      204 474 7423      [Student\\_accessibility@umanitoba.ca](mailto:Student_accessibility@umanitoba.ca)

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## DELIVERABLES

DATE	TASK
February 1	Assignment 1
February 8	Midterm Exam
March 20	Assignment 2
April 3	Final Report Due
April 3 & 5	Presentations
TBA	Final Exam

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**Acknowledgements:** The teaching materials and formats of the lecture and the lab used in this course (including the general outline, notes, handouts, lecture and lab schedule, etc.) were originally developed by Mr. Mel Falk (M.Sc, P.Biol., CCEP), President of Falk Environmental Inc, through his teaching of the Environmental Assessment course in previous years. Modifications to these teaching materials have been made by Wendy Botkin and Isabel Martinez-Welgan (previous Instructors) and Crista Gladstone (current Instructor) to fit the current teaching needs and schedules of the course.

## ENVR 3250: Lecture Topics and Reading Outline

*(note: lecture schedule and topics are subject to change to accommodate availability of guest lecturers, pace of the class, and other opportunities that may arise from current events, etc.)*

Lecture #	Date	Subject	Remarks
1	Jan. 4	Introduction to the course Basics of environmental assessment	
2	Jan. 9	Principles and History of EA	
3	Jan. 11	Federal EA Legislation	
4	Jan. 16	Federal EA Legislation (cont.)	
5	Jan. 18	Manitoba EA Legislation	(Guest Lecturer - MCWS)
6	Jan 23	Panel review processes; EA harmonization/cooperative processes	
7	Jan. 25	EA methodology	
8	Jan. 30	Describing the Project and the Environment	
9	Feb. 1	Scoping environmental assessments	<b>Assignment #1 due</b>
10	Feb. 6	Identifying and assessing effects	
11	Feb. 8	<b>Mid-Term Exam</b> ( <i>in class</i> )	
12	Feb. 13	Mitigating, evaluating, and managing environmental effects	
13	Feb. 15	Mitigating, evaluating, and managing environmental effects (cont.)	
<b>READING WEEK, February 19 - 23</b>			
14	Feb. 27	Decision-making, reporting, and follow-up	
15	Mar. 1	Case Study: Implementing mitigation & follow-up after approvals	(Guest Lecturer – Manitoba Hydro)
16	Mar. 6	Cumulative effects assessment	
17	Mar. 8	Cumulative effects assessment (cont.)	
18	Mar. 13	Public Participation	
19	Mar. 15	Aboriginal Consultation	(Guest Lecturer)
20	Mar. 20	Considering Traditional Ecological Knowledge in EA	<b>Assignment #2 due</b>
21	Mar. 22	Case Study – Public Participation	
22	Mar. 27	Strategic Environmental Assessment	
23	Mar. 29	Catch up/course review	
24	Apr. 3	Presentations	<b>Final Report Due</b>
25	April. 5	Presentations	

**ENVR 3250: ENVIRONMENTAL ASSESSMENT LAB SCHEDULE, Winter 2018**

<b>LAB</b>	<b>DATE</b>	<b>SUBJECT</b>
1	Jan. 18	<ul style="list-style-type: none"> <li>• Project Assignments &amp; Instructions</li> <li>• SCOPING</li> <li>• Complete worksheet 1 and summarize results</li> </ul>
2	Jan. 25	<ul style="list-style-type: none"> <li>• DESCRIBING THE PROJECT</li> <li>• Complete worksheet 2 and summarize results</li> </ul>
3	Feb. 1	<ul style="list-style-type: none"> <li>• DESCRIBING THE ENVIRONMENT</li> <li>• Complete worksheet 3 and summarize results</li> </ul>
4	Feb. 8	<ul style="list-style-type: none"> <li>• IDENTIFYING ENVIRONMENTAL EFFECTS</li> <li>• Complete worksheet 4 and summarize results</li> </ul>
5	Feb. 15	<ul style="list-style-type: none"> <li>• ASSESSING ENVIRONMENTAL EFFECTS</li> <li>• Complete worksheet 5 and summarize results</li> </ul>
6	Mar.1	<ul style="list-style-type: none"> <li>• IDENTIFYING MITIGATION MEASURES &amp; FOLLOW-UP REQUIREMENTS</li> <li>• Complete worksheets 6 and 7, and summarize results</li> </ul>
7	Mar. 8	<ul style="list-style-type: none"> <li>• CONSIDERING PUBLIC CONCERN &amp; CUMULATIVE EFFECTS</li> <li>• Complete worksheets 8 and 9, and summarize results</li> </ul>
8	Mar. 15	<ul style="list-style-type: none"> <li>• EVALUATING SIGNIFICANCE</li> <li>• Complete worksheet 10 and summarize results</li> </ul>
9	Mar. 22	<ul style="list-style-type: none"> <li>• REPORTING</li> <li>• Complete worksheet 11 and summarize results</li> </ul>
10	Mar. 29	<ul style="list-style-type: none"> <li>• Open lab (work on final report)</li> </ul>
<b>April 3</b>		<ul style="list-style-type: none"> <li>• <b>FINAL REPORT DUE IN CLASS</b></li> </ul>

<p><b>Lab TA:</b></p> <p><b>Crista Gladstone</b></p>
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