



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

Environmental Science II: Issues
ENVR 2000
Winter 2020

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COURSE DETAILS

Course Title & Number:	Environmental Science II: Issues, ENVR 2000
Number of Credit Hours:	3
Class Times & Days of Week:	January 7, 2019 – April 9, 2019 Mon/Wed/Fri 9:30-10:20pm
Location for classes/labs/tutorials:	221 Wallace Building
Pre-Requisites:	ENVR 1000 (128.100) (C) or BIOL 1340 (071.134) (C)

Instructor Contact Information

Instructor(s) Name:	Dr. Erin McCance
Preferred Form of Address:	Dr. McCance
Office Location:	220B General Department Office
Office Hours or Availability:	Tuesday/Thursday 11:45am-12:45 pm (By appointment only)
Office Phone No.	204-232-2941
Email:	Erin.mccance@umanitoba.ca E-mails will be answered within 24 hours Mon-Fri.
Contact:	I look forward to meeting every student in person, and you can always see me after class. Some correspondence will require documentation and therefore is best done by e-mail (such as requesting special permission).

Course Description

This course will review the major features of the structure and function of natural systems along with the degree to which these have been compromised in the Anthropocene. The main components of the course will concentrate on the identification of the issues that underlie environmental degradation, while exploring alternative conditions that have the potential to reverse current trends and ultimately contribute to ecological sustainability.

General Course Information

This course is meant to engage students on issues of the environment and ultimately the well-being of humans and the natural world. We will explore issues from a foundation of understanding of the science behind the issue, the historical context, and technical and social solutions. Issues explored include long-term systemic issues in addition to topics currently in the media.

Course Goal

The goal of this course is to explore the complexities and interrelationships of the physical, chemical, and biological systems in nature and the impacts on these systems resulting from human activity. Throughout these investigations of system impacts, the course will explore the multi-dimensional solutions available.

Intended Learning Outcomes

Upon completion of this course, students should be able to:

- 1) Define basic terminology of the discipline and show an understanding of environmental issues presented in class;
- 2) Comment on the complex and multidisciplinary nature of environmental issues;
- 3) Discuss short-term and long-term implications of the environmental issues; and
- 4) Demonstrate an understanding of the local and regional solutions to environmental problems.

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.

Recording Class Lectures

Erin McCance 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 the permission of Erin McCance. Course materials (both paper and digital) are for the participant's private study and research.

Textbook, Readings, Materials

The required textbook for this course is:

Draper, D., & Zimmerman, A. (2017). Our Environment: A Canadian Perspective (5th Ed.) Toronto, ON: Nelson Education. (Available in both hardcopy and e-textbook formats)

OPTIONAL TEXT: Berg, L.R., M.C. Hager, L.G. Goodman, and R.K. Baydack. 2010. Visualizing the Environment. Wiley, Toronto.

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 Student Accessibility 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.

COURSE RESOURCES: Course textbook, notes, additional reading materials, detailed instruction on examination, and general course communications are posted on UM Learn.

Class Communication

The University requires all students to activate an official University email account. For full details of the Electronic Communication with Students please visit: http://umanitoba.ca/admin/governance/media/Electronic_Communication_with_Students_Policy_-_2014_06_05.pdf

Please note that all communication between myself and you as a student must comply with the electronic communication with student policy (http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html). You are required to obtain and use your U of M email account for all communication between yourself and the university.

Expectations: Student

The lecture material covered in each class is provided on UM Learn. Since the notes are made available to you, I expect each student to be actively involved in class discussions. Students are required to attend every class. I expect you to come to class each week having read the outlined chapter in the text book and be prepared to discuss the topics outlined. You may use your computer to take notes during class. Students are expected to actively participate in the seminar discussions. I will treat you with respect and would appreciate the same courtesy in return. See [Respectful Work and Learning Environment Policy](#).

Academic Integrity:

In addition to the general information about academic integrity and student discipline that you provide (Schedule "A" Policies and Resources), references to specific course requirements for individual work and group work, such as:

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

Student Accessibility Services

Student Accessibility Services (SAS)

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

Expectations: Instructor

I will be in class for 10 minutes prior to and after the class time. I will ensure that course grade requirements are clearly articulated and repeated several times throughout the course. I will be very responsive to student emails and will return those messages within 48 hours. Should the student wish to discuss course materials in more detail, I will arrange a time during office hours (or another mutually agreeable time) with the student to meet. I will be consistent with all of my marking and constructive feedback and I ask that in return, students meet the deadlines that are clearly defined within this syllabus.

Class Schedule

This schedule is subject to change at the discretion of the instructor but such changes are subject to Section 2.8 of the – [ROASS](#)- Procedure.

January 8	Introduction Review of Course Syllabus and Expectations	
January 10	History of the Environmental Movement Earth day Origins of Environmental Law United Nations Stockholm and Rio Conferences	Chapter 1
January 13	Human Population Growth Population growth trends over space and time Global Footprint Network	Chapter 2
January 15	Environmental Ethics and Human Value Systems Cognitive Hierarchy Nature Deficit Disorder	Chapter 3
January 17	Energy Demands Fossil Fuels, Non-Renewables Environmental Disasters	Chapter 13
January 20	Energy Demands Cont. Fossil Fuels, Non-Renewables Environmental Disasters	Chapter 13
January 22	Social Corporate Responsibility Environmental Justice	Directed Readings
January 24	Film: The Big Fix, Canadian National Film Board Documentary	
January 27	Mining Mineral use	Chapter 14

	Extraction methods Environmental Justice	
January 29	Urban Ecosystems Global Urban Footprint Urban Ecological Function	Chapter 17
January 31	Cities & Waste Toxicity, E-waste, Waste Disposal	Chapter 15
February 3	Food Systems Domestic Livestock, Monoculture Pesticides, Fertilizers	Chapter 8
February 5	Regenerative Agriculture Resilience, Multi-use Sustainable vs Regenerative	Chapter 8
February 7	Film: Fresh	
February 10	In-Class Test #1 (Worth 30% of Course Grade)	
February 12	Chemical Contamination Love Canal, USA – Hazardous Waste Bhopal, India – Chemical Disaster	Chapter 16
February 14	Human Health and the Environment Risk Assessment Acute and Chronic Toxicity Movement of Toxins	Chapter 16
February 17-21	Mid-term Break – No Classes	
February 24	Captive Wildlife & Disease Translocation and Relocation Stocking density TB, Scrapie's, CWD	Directed Readings
February 26	Zoos & Aquariums Accredited Zoos & Aquariums Welfare vs. Ethics	Directed Readings
February 28	Film: Blackfish Documentary	
March 2	Ecosystems & Species Diversity Extinction Studies	Chapter 7

	System integrity	
March 4	Forests, Forestry, & Fire Deforestation vs. Reforestation Fire suppression Lumber Certifications	Chapter 11
March 6	Parks and Protected Areas Pathway to Canada Target 1 Convention on Biological Diversity	Chapter 4 & 5
March 9	In-Class Test #2 (Worth 30% of course grade)	
March 11	Water Quantity Issues and Challenges	Chapter 9
March 12	Water Quality Issues and Challenges	Chapter 9
March 16	Atmospheric Pollution Air quality and VOCs Sources and Transport	Chapter 12
March 18	Climate Change Ozone Depletion Rising Sea Levels	Chapter 12
March 18	Voluntary Withdrawal Date 60% of course mark will be available to you by this date	
March 23	Ecosystem management and Sustainable Development IUCN 5 Steps 3 Pillars	Directed Readings
March 25	Environmental Legislation Government and Policy Environmental Assessment	Directed Readings
March 27	Wildlife Policy and Law North American Model Compliance and Enforcement	Directed Readings
March 30	Environmental Economics Green Finance & Environmental Entrepreneurialism Collaborative Consumption	Directed Readings

April 1	Film: A Business Case for Sustainability	
April 3	Tools for Environmental Management Environmental Careers ISO	Directed Readings
April 6	Where are we now? Course Content Summary	Chapter 18
April 8	Review & Question Period	
April 13-25	Final Exam (Worth 40% of course grade) Date, time, and location of Final Exam to be announced	

Course Evaluation Methods

Students are evaluated based on two In-Class Tests worth 30% each, as well as a final exam (to be arranged and held during the University of Manitoba Examination period in December) worth 40% of the total grade.

Due Date:	Assessment Tool	Value of Final Grade
Feb. 7, 2020	In-Class Test #1	30%
March 9, 2020	In-Class Test #2	30%
April Exam Period 2020	Final Exam	40%
Total		100%

Grading

The grading scale used for this course is:

Letter Grade	Percentage out of 100	Grade Point Range	Final Grade Point
A+	90-100	4.25-4.5	4.5
A	80-89	3.75-4.24	4.0
B+	75-79	3.25-3.74	3.5
B	70-74	2.75-3.24	3.0
C+	65-69	2.25-2.74	2.5
C	60-64	2.0-2.24	2.0
D	50-59	Less than 2.0	1.0
F	Less than 50		0

Test Absence Policy

Should student not attend the in-class tests or the final exam, they will receive a zero. In accordance with the University of Manitoba Policy for Assignments, Reports, Tests, and Presentations: Without permission of the instructor and supporting documentation (e.g. medical certificate) or reasons provided, acquired **PRIOR TO THE TEST DATE**, will result in a grade of "F". Students will not be permitted to miss tests or exams, except for documented medical or compassionate reasons.

Academic Supports: The University of Manitoba provides many services and supports to encourage good scholarship and overall health and wellness including: instruction to improve writing skills, best use practices for copyrighted materials, and supports for studying for examinations etc., personal health (both mental and physical) including: student advocacy, student counseling and health services, etc. and supports for assaults (both verbal and physical). These are designed to make each student's experience positive, safe and assist in successful completion of courses and programs of study. The University provides and encourages all members and students to maintain a respectful work and learning environment. Policies have been developed regarding threatening behavior, or assaults whether verbal or physical to support victims and discipline offenders. For more information on these see Schedule "A" found at the end of the course syllabus.

Schedule "A"

Section (a) Academic Supports

Writing and Learning Support: The Academic Learning Centre (ALC) offers services that may be helpful to you throughout your academic program. Through the ALC, you can meet with a learning specialist to discuss concerns such as time management, learning strategies, and test-taking strategies. The ALC also offers peer supported study groups called Supplemental Instruction (SI) for certain courses that students have typically found difficult. In these study groups, students have opportunities to ask questions, compare notes, discuss content, solve practice problems, and develop new study strategies in a group-learning format.

You can also meet one-to-one with a writing tutor who can give you feedback at any stage of the writing process, whether you are just beginning to work on a written assignment or already have a draft. If you are interested in meeting with a writing tutor, reserve your appointment two to three days in advance of the time you would like to meet. Also, plan to meet with a writing tutor a few days before your paper is due so that you have time to work with the tutor's feedback. These Academic Learning Centre services are free for U of M students. For more information, please visit the Academic Learning Centre website at: <http://umanitoba.ca/student/academiclearning/>. You can also contact the Academic Learning Centre by calling 204-480-1481 or by visiting 201 Tier Building.

University of Manitoba Libraries (UML): As the primary contact for all research needs, your liaison librarian (if they weren't recently fired by Central Administration) can play a vital role when completing academic papers and assignments. Liaisons can answer questions about managing citations, or locating appropriate resources, and will address any other concerns you may have, regarding the research process. Liaisons can be contacted by email or phone, and are also available to meet with you in-person. A complete list of liaison librarians can be found by subject: <http://bit.ly/WcEbA1> or name: <http://bit.ly/1tJ0bB4>

In addition, general library assistance is provided in person at 19 University Libraries, located on both the Fort Garry and Bannatyne campuses, as well as in many Winnipeg hospitals. For a listing of all libraries, please consult the following: <http://bit.ly/1sXe6RA>. When working remotely, students can also receive help online, via the Ask-a-Librarian chat found on the Libraries' homepage: www.umanitoba.ca/libraries

Section (b) Mental Health

For 24/7 mental health support, contact the Mobile Crisis Service at 204-940-1781. Student Counselling Centre: Contact SCC if you are concerned about any aspect of your mental health, including anxiety, stress, or depression, or for help with relationships or other life concerns. SCC offers crisis services as well as individual, couple, and group counselling. Student Counselling Centre: <http://umanitoba.ca/student/counselling/> 474 University Centre S207 Medical Services (204) 474-8592

Student Support Case Management: Contact the Student Support Case Management team if you are concerned about yourself or another student and don't know where to turn. SSCM helps connect students with on and off campus resources, provides safety planning, and offers other supports, including consultation, educational workshops, and referral to the STATIS threat assessment team. Student Support Intake Assistant <http://umanitoba.ca/student/case-manager/index.html> 520 University Centre (204) 474-7423

University Health Service: Contact UHS for any medical concerns, including mental health problems. UHS offers a full range of medical services to students, including psychiatric consultation. University Health Service <http://umanitoba.ca/student/health/> 104 University Centre, Fort Garry Campus (204) 474-8411 (Business hours or after hours/urgent calls)

Health and Wellness: Contact our Health and Wellness Educator if you are interested in information on a broad range of health topics, including physical and mental health concerns, alcohol and substance use harms, and sexual assault. Health and Wellness Educator <http://umanitoba.ca/student/health-wellness/welcome.html>
Katie.Kutryk@umanitoba.ca 469 University Centre (204) 295-9032

Live Well @ UofM: For comprehensive information about the full range of health and wellness resources available on campus, visit the Live Well @ UofM site: <http://umanitoba.ca/student/livewell/index.html>