



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

**Environmental Science II: Issues**  
**ENVR 2000**  
**Summer 2024**

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## COURSE DETAILS

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<b>Course Title &amp; Number:</b>	Environmental Science II: Issues, ENVR 2000
<b>Number of Credit Hours:</b>	3
<b>Class Times &amp; Days of Week:</b>	M, Tues, W, Thurs, 4:00-5:15 pm (CST) (one Friday class to be held on May 24, 2024)
<b>Location for classes/labs/tutorials:</b>	118 St. John's College
<b>Pre-Requisites:</b>	ENVR 1000 (128.100) (C) or BIOL 1340 (071.134) (C)

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## Instructor Contact Information

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<b>Instructor(s) Name:</b>	Dr. Erin McCance
<b>Preferred Form of Address:</b>	Dr. McCance
<b>Office Location:</b>	Online office hours via Teams
<b>Office Hours or Availability:</b>	Tuesday/Thursday 3:00 pm – 4:00 pm CST (By appointment only)
<b>Office Phone No.</b>	204-232-2941
<b>Email:</b>	<a href="mailto:Erin.mccance@umanitoba.ca">Erin.mccance@umanitoba.ca</a> E-mails will be answered within 24 hours Mon-Fri.
<b>Contact:</b>	Students should contact me by email

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## Course Description

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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.

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## General Course Information

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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.

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## Course Goal

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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.

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## Intended Learning Outcomes

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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.
- 4) Demonstrate an understanding of the local and regional solutions to environmental problems.

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## Using Copyrighted Material

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Please respect copyright. We will use copyrighted content in this course. I have ensured that the content used 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).

**Plagiarism:** Plagiarism, cheating, or impersonation in the completion of assignments and at examinations are very serious offences. Students caught plagiarizing on tests may be debarred from the test and class with further risk of academic penalty and possible expulsion. All graded work must be independent.

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## **Recording Class Lectures**

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Dr. 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 only.

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## **Textbook, Readings, Materials**

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The required textbook for this course is:

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

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## **Attendance & Lecture Assessments**

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You are required to attend all scheduled lectures. If you are unable to attend a scheduled lecture, you are required to email the instructor PRIOR to the scheduled class to provide reasoning for your absence. Please review the University of Manitoba Handbook for the acceptable number of missed lectures in a semester.

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## **Course Technology**

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It is the general University of Manitoba policy that all technology resources are to be used in a responsible, efficient, ethical, and legal manner. Students may use technology for educational purposes as approved by instructor and/or the University of Manitoba Disability Services. Students 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 online lecture time.

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## **Microsoft Teams**

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Instructor office hours will be held following each lecture as well as during scheduled office hours (by appointment only) using Microsoft Teams. Each student should take time to download Microsoft Teams (<https://www.microsoft.com/en-ca/microsoft-teams/download-app>).

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## Class Communication

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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](http://umanitoba.ca/admin/governance/media/Electronic_Communication_with_Students_Policy_-_2014_06_05.pdf)

Please note that all communication between me 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](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. I will only use and respond to an email from a student's U of M email account. All students must gain access to U of M Learn. All course materials and updates on course scheduling and content will be posted on U of M Learn.

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## Course Delivery

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This course is comprised of daily lectures. Lecture materials will be posted on UM Learn. These materials are subject to copyright (please note the section outlining the use of copyrighted material). These online materials are not a substitute for coming to class, and you cannot use these notes exclusively as they will need to be supplemented by notes from lecture and seminar discussions as well as readings that are assigned and from the textbook. ALL course content, including information from discussions held during class time are testable.

- For assistance with *UM Learn*:
  - Information and Services Technology Service Desk:  
<http://umanitoba.ca/ist/help/>
  - 123 Fletcher Argue (Mon - Fri: 8:00 AM. - 8:00 PM)
  - Phone: 204.474.8600
  - Email: [Servicedesk@umanitoba.ca](mailto:Servicedesk@umanitoba.ca)

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## Expectations: Student

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The lecture material covered in each week will be provided on UM Learn. Since the notes are made available to you, each student should be actively involved in class discussions and participate fully with each exercise. You are required to attend every class. Please come to class each week prepared to discuss the topics outlined. You may use your computer to take notes during class. Further, each student is asked to:

- Know course and university policies.
- Read and understand the course syllabus.
- Be courteous and respectful. Policies on Respectful Work and Learning Environment (RWLE) and Inappropriate and Disruptive Student Behavior below.
- Remain available for all classes.

- Maintain academic integrity and copyright according to the University of Manitoba guidelines.
- Inform instructor promptly if there is a conflict with the course schedule or course deliverables.
- Consult your *UM* email account regularly. This is how the instructor and university will communicate with you. Since there may be weather that may impact the schedule, please check your U M Learn and U of M email accounts each week prior to class.

I will treat you with respect and would appreciate the same courtesy in return. See [Respectful Work and Learning Environment Policy](#).

### **Inappropriate and Disruptive Student Behavior:**

Inappropriate and disruptive behavior that interferes with the learning of other students, or the instructor's ability to teach will not be tolerated. Such behaviors would include but would not be limited to the following:

- threats to the physical safety of the individuals or others;
- verbal threats to or abuse of students or University personnel;
- recurring and willful damage of University and Parkland Mews property, including equipment;
- inappropriate or disruptive behavior as a result of misuse of drugs or alcohol on University or Parkland Mews property; and
- actions which habitually interfere with the learning environment or requires the inordinate time and attention of faculty and staff.

Other disruptive activities include (but are not limited to) the use of texting in class, wearing headphones, talking during lecture, using technology such as computers, tablets, and mobile devices to view material that is not related to the class.

Please see the Inappropriate or Disruptive Student Behavior Policy: <http://bit.ly/2iRbHKU>

Please see the Student Discipline Bylaw: <http://bit.ly/2b3RL3p>

### **Academic Integrity:**

Students are responsible for ensuring they understand the University of Manitoba's policy on Academic Integrity (plagiarism, cheating, and examination impersonation). These policies are available in the University Catalog 2016-2017, General Academic Regulations <http://bit.ly/2Dz50DX>. The penalties for plagiarism and cheating are severe and range from receiving a grade of zero on an assignment, to academic suspension. For more information on Cheating, Plagiarism, and Fraud: <http://bit.ly/2b63fBP> & <http://bit.ly/2b63ywR>.

All work is to be completed independently unless otherwise specified.

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## **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](mailto:Student_accessibility@umanitoba.ca)

## **Expectations: Instructor**

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I will strive to create a welcoming, inclusive, and positive classroom environment in which all students feel respected and heard. I will treat you fairly and respectfully while supporting your vision of academic success. I will adhere to the Respectful Work and Learning Environment Policy. I will listen to your questions/concerns/feedback about the course structure, readings, assignments and grading. I will provide timely feedback on assessments. I will follow policies regarding academic staff's responsibilities regarding students (ROASS).

I will follow university policies on plagiarism, cheating, and exam personation. I will act with academic integrity, utilize my University of Manitoba email account to communicate with you and return emails in a timely fashion (24-hours) and follow the University of Manitoba Electronic Communications with Students Policy. I will identify and recommend on campus resources you might find helpful on an as-needed basis (such as the academic learning centre, accessibility services, libraries, etc.). I will respect confidentiality by protecting your personal information and adhering to University Policies on Information Access and Privacy and The Freedom of Information and Protection of Privacy Act (FIPPA). I will respect Copyright in accordance with copyright laws and university guidelines.

## **Class Schedule**

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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.

May 6	<b>Introduction</b> Introduction to course goals and objectives	
May 7	<b>History of the Environmental Movement</b> Earth day Origins of Environmental Law United Nations Stockholm and Rio Conferences	<b>Chapter 1</b>
May 8	<b>Human Population Growth</b> Population growth trends over space and time Global Footprint Network	<b>Chapter 2</b>
May 9	<b>Environmental Ethics and Human Value Systems</b> Cognitive Hierarchy	<b>Chapter 3</b>



	Nature Deficit Disorder	
May 13	<b>Energy Fossil Fuels</b> Fossil Fuels, Non-Renewables Environmental Disasters	<b>Chapter 13</b>
May 14	<b>Mining &amp; Nuclear</b> Mineral use Extraction methods Environmental Justice	<b>Chapter 14</b>
May 15	<b>Energy Alternatives</b> Solar, biomass, wind, wave, hydrogen, electric energies Benefits and Liabilities Changing technologies	<b>Chapter 13</b>
May 16	<b>Test #1 (Worth 30% of Course Grade)</b>	
May 20	<b>No Class</b>	
May 21	<b>Urban Ecosystems &amp; Waste Systems</b> Global Urban Footprint Urban Ecological Function Toxicity, E-waste, Waste Disposal Documentary	<b>Chapter 17</b>
May 22	<b>Invasive Species</b> Barriers & Corridors Pre-Anthropocene Dispersal Anthropocene Dispersal Ecosystem & Economic Costs and Management	<b>Chapter 15</b>
May 23	<b>Ecosystems &amp; Species Diversity</b> Era of Extinction Accelerated Biodiversity Loss	<b>Chapter 7</b>
May 24	<b>Food Systems</b> Domestic Livestock, Monoculture Pesticides, Fertilizers	<b>Chapter 8</b>
May 27	<b>Captive Wildlife &amp; Disease</b> Translocation and Relocation Stocking density TB, Scrapie's, CWD	<b>Directed Readings</b>

May 28-29	<b>Regenerative Agriculture</b> Resilience, multi-use Sustainable vs Regenerative <b>Food Systems</b> Documentary	<b>Chapter 8</b>
May 30	<b>Test #2 (Worth 30% of Course Grade)</b>	
June 3-4	<b>Fresh Water Quantity &amp; Quality</b> Issues and Challenges	<b>Chapter 9</b>
June 4	<b>Voluntary Withdrawal Date</b> (60% of course grade available by this date)	
June 5-6	<b>Saltwater Ecosystems</b> Issues and Challenges	<b>Chapter 9</b>
June 10	<b>Forests, Forestry, &amp; Fire</b> Deforestation vs. Reforestation Fire suppression. Lumber Certifications	<b>Chapter 11</b>
June 11-12	<b>Climate Change</b> Ozone Depletion Rising Sea Levels Atmospheric Air quality Sources and Transport	<b>Chapter 12</b>
June 13	<b>Course Review</b>	
June 17-22	<b>Final Exam (Worth 40% of course grade)</b> Date and time of Final Exam to be announced.	

## Course Evaluation Methods

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

Due Date:	Assessment Tool	Value of Final Grade
May 15, 2024	Test #1	30%
May 29, 2024	Test #2	30%
June Exam Period	Final Exam	40%
Total		100%

## Grading

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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 & Lecture Absence Policy

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Should student not write the term tests or the final exam, 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 and approved by the course Instructor **PRIOR TO THE ONLINE TEST DATE** a student failing to write the test on the specified date will receive a grade of "F". Students will not be permitted to miss the online 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”**

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### 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](http://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>