



**University
of Manitoba**

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

**Advanced Issues in Environment and Health
ENVR 4400
Winter 2024**

TABLE OF CONTENTS

COURSE DETAILS 3

INSTRUCTOR CONTACT INFORMATION 3

GENERAL COURSE INFORMATION..... 4

COURSE GOAL..... 4

LEARNING OBJECTIVES..... 4

RECORDING CLASS LECTURES..... 4

TEXTBOOK, READINGS, MATERIALS 4

COURSE TECHNOLOGY 5

CLASS COMMUNICATION..... 5

STUDENT GUIDELINES 5

STUDENT ACCESSIBILITY SERVICES 6

CLASS SCHEDULE 6

COURSE EVALUATION METHODS 7

GRADING 7

REFERENCING STYLE..... 7

QUIZ/ TEST GRADING TIMES..... 8

QUIZ MAKE-UP AND LATE POLICY 8

COURSE DETAILS

Course Title & Number: **Advanced Issues in Environment and Health, ENVR 4400**

Number of Credit Hours: 3

Class Times & Days of Week: Jan. 8, 2024 – Apr. 10, 2024
Tuesday and Thursday; 13:00- 14:15

Location for classes: St. John's Room 205

Pre-Requisites: ENVR 3400 (C)

Instructor Contact Information

Instructor(s) Name: Dr. Alistair Brown

Preferred Form of Address: Dr. Brown

Office Hours or Availability: Please email to schedule an appointment, or if you want to video chat

Email: alistair.brown@umanitoba.ca
E-mails will be answered within 24 hours Mon-Fri.

Contact: Some correspondence will require documentation and therefore is best done by e-mail (such as requesting special permission).

COURSE DESCRIPTION: This course will address how environmental structure and conditions affect human health. The main components of the course will concentrate on the foundations of toxicology and epidemiology, which provides the framework necessary to assign association or causality between environment and human health effects.

General Course Information

This course provides an opportunity to perform in-depth investigations into community structures, social determinants of health, and chemical/ biological contaminant impacting human health. Case studies of environmental issues and their human health effects are covered. Students will work on a substantial interdisciplinary environmental health project.

Course Goal

The goal of this course is to explore global and local complexities of current/emerging environmental issues, how they exacerbate both communicable and non-communicable disease, and how they directly affect human health.

Learning Objectives

Students will be able to recall basic terminology of the discipline, comment on complex environmental issues, discern the difference between causal factors, confounding factors, and predisposition factors.

Students will be able to recall modes of toxicity and investigate plausible mechanisms for toxicity of chemicals on non-target organisms and humans

Students will be able to contrast how environmental factors influence assignment of causality.

Students will critically assess the strengths of peer-reviewed environmental/epidemiological studies using Bradford-Hill criteria.

Recording Class Lectures

Alistair Brown of the University of Manitoba holds copyright over the course materials, presentations and lectures which form part of this course. No audio or video recording of lectures or presentations can be distributed to people outside of the course in whole or in part without permission of Alistair Brown. Course materials (both paper and digital) are for the participant's private study and research.

Textbook, Readings, Materials

REQUIRED TEXT: Essential Epidemiology- Principles and Applications, 1st Edition William A. Oleckno, Editor, 2002, Waveland Press

OPTIONAL TEXT (ENVR3400 Textbook): Environmental Health: From Global to Local – 3rd edition, by Howard Frumkin

To purchase e-books: <http://bookstore.umanitoba.ca/CourseMaterials.aspx>

Course Technology

COURSE RESOURCES: Course notes, detailed instruction on assignments and general course communications are posted on UM Learn. All assignments unless otherwise noted are submitted on UM Learn.

STUDENT RESOURCES: The Centre for Advancement of Teaching and Learning has instructional videos on accessing and contributing to wikis and blogs that may be useful. [http://intranet.umanitoba.ca/academic_support/Centre for the Advancement of Teaching & Learning/resources/wikis_blogs.html](http://intranet.umanitoba.ca/academic_support/Centre_for_the_Advancement_of_Teaching_&_Learning/resources/wikis_blogs.html).

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](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.**

Student Guidelines

VOLUNTARY WITHDRAWAL DATE: Wednesday, March 20th, 2024

ACT WITH PROFESSIONALISM: In the University setting, we are in professional relationships. These relationships are characterized by demonstrated respect between all parties, students and instructors, and students and other students. This includes professional and respectful language, tone of voice, and demeanour. This is an excellent time to practice the professionalism required in the workforce, especially in your e-mail and in-person communications.

ACADEMIC INTEGRITY: Please refer to “Schedule A” policies and resources for students as posted on UM Learn. In addition, please note that;

- (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) if a group member is not acting with academic integrity or not performing his or her duties as agreed, please advise the Instructor as soon as possible to resolve any potential problems as early as possible;
- (iv) collaboration between students is encouraged for understanding material, proof-reading a peer's work, making suggestions on approach, etc.; however,
- (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](mailto:student_accessibility@umanitoba.ca)

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.

Group Discussions/ Breakout Sessions (every 2nd Tuesday):

Jan 16th

Jan 30th

Feb 13th

Feb 20th and 22nd: Reading Week

Feb 27th: In-class mid-term exam

Mar 5th

Mar 19th

Apr 2nd

Class Lectures

Communication in the sciences

Risk perception and complex issues

Public health data and surveillance

Introduction to epidemiology

Epidemiological study designs

Accuracy and validity of scientific studies
 Screening for disease detection
 Vaccinology and immunity
 Ecotoxicology
 Distribution and fate of chemical contaminants
 Toxicity, biomagnification, and transformation
 Endocrine disruption

Special Guests: (May be Subject to Change)

Mr. Nikita Lysenko- Epidemiology Project Coordinator, Cancer Care Manitoba

Course Evaluation Methods

Students will be evaluated through the following assessments:

| | |
|--|--------------|
| GROUP DISCUSSIONS (6 x 2.5% each): | (15%) |
| MID-TERM TEST (Feb 27th): | (20%) |
| INTERDISCIPLINARY PROJECT (Sunday April 14th): | (30%) |
| FINAL CUMULATIVE EXAM: | (35%) |
| TOTAL: | 100% |

Grading

| Letter Grade | Percentage out of 100 | |
|--------------|-----------------------|--------------|
| A+ | 90-100 | Exceptional |
| A | 80-89 | Excellent |
| B+ | 75-79 | Very Good |
| B | 70-74 | Good |
| C+ | 65-69 | Satisfactory |
| C | 60-64 | Adequate |
| D | 50-59 | Marginal |
| F | 0-49 | Failure |

Referencing Style

Any of the main referencing styles may be used in class, however the reference must include an in-text citation (either numerical or author date) close to the idea, fact, image or quote being cited as well as a full citation at the end of the document. Students may choose to use APA, MLA, Chicago, CSE or other recognized referencing style.

Quiz/ Test Grading Times

Marks on graded quizzes and tests will be available within <1 week after the submission date whenever possible. All materials submitted electronically on UM Learn will be graded and comments provided on UM Learn.

Quiz Make-Up and Late Policy

From the UM Provost and Vice-President Academic:

“Students who are unable to meet a course requirement due to medical circumstances are currently not required to submit medical notes. However, students are required to contact their instructor or academic advisor by email to inform of the missed work and to make arrangements for extensions, deferrals, or make-up assignments. Please follow these guidelines if you are unable to meet an academic requirement for your courses:

- Contact your instructor for term work such as a class, quiz, midterm/test, assignment, lab.
- Contact an advisor in your faculty/college/school of registration for a missed final exam (scheduled in the final examination period).
- Inform your instructor/advisor as soon as possible do not delay. Note for final exams, students must contact **within 48 hours** of the date of the final exam.
- Email your instructor/advisor from a **U of M email address**, and include your full name, student number, course number, and academic work that was missed.”

UM COVID-19

The University of Manitoba (the “UM”) is committed to maintaining a safe learning environment for all students, faculty, and staff. Should campus operations change because of health concerns related to the COVID-19 pandemic or other campus-wide emergency, it is possible that this course will move to a fully remote delivery format. Should the instructor be required to stay at home for an extended period and an alternate instructor not be available, the course may move temporarily to a remote delivery format. In that instance, you may be provided with an asynchronous option to minimize the impact the change may have on your schedule.

Students should not eat or drink during class time.

Illness

Remember: **STAY HOME IF YOU HAVE SYMPTOMS OR ARE ILL.** If you become sick or are required to self-isolate you should notify your instructor by email so you can develop a plan

to complete the course learning outcomes while you are absent. If you have symptoms, do not come to campus or any UM facilities.

Complete the self-assessment on the Manitoba Public Health site and follow the guidelines, which may include booking a COVID-19 test.

What to do if you become ill while at UM:

1. Leave the classroom, lab or workspace immediately. Continue to wear your mask while leaving the premises and/or while waiting for transportation.
2. Perform hand hygiene (soap and water or hand sanitizer) and avoid contact with others, and minimize contact with the physical environment.
3. Once at home, complete the MB self-assessment and follow the directions that are provided.
4. Inform your supervisor(s), instructor(s) or, if in residence, the appropriate individual.
5. You must remain off campus and all UM facilities until cleared to return in accordance with self-assessment, testing results, or MB Health requirements.

Recommended transportation options (in order):

1. Drive yourself home.
2. Pick-up by family or friend – remember to keep your mask on and to distance as much as possible, and where possible, open a window to improve ventilation.
3. Pickup by taxi/Uber:
 - Remain masked and perform hand hygiene before entering the vehicle.
 - Avoid touching the inside of the vehicle
 - Keep your mask on for the duration of the ride
 - Where possible, open a window to improve ventilation.
4. Winnipeg Transit buses - Winnipeg Transit has indicated that individuals that are ill must not use Transit.