

**Course Syllabus**  
**Natural Hazards - GEOG 2272 A01**  
**Department of Environment and Geography**  
**Clayton H. Riddell Faculty of Environment, Earth, and Resources**

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**Instructor:** Trevor Mellors

**Contact:** Wallace Bldg. RM 238  
Trevor.Mellors@umanitoba.ca (preferred means of contact)

**Office Hours:** by appointment made via email

**Lecture Slot:** **M/W/F:** 12:30 PM–1:20 PM

**Lecture Room:** 100 St. Paul's College

**Course Dates:** Sept. 5 – Dec. 7, 2018

**Final Exam:** TBA (Final Exam Period: Dec. 10 to 21, 2018)

**Final Voluntary Withdrawal Date:** **Nov. 19, 2018 (50% of the course grade will be available by this date)**  
**For more information:** [http://umanitoba.ca/student/records/leave\\_return/695.html](http://umanitoba.ca/student/records/leave_return/695.html)

**Required Text:**

1. **Keller, E.A, Devecchio, D.E., & Clague, J.J. (2015).** Natural Hazards: Earth's Processes as Hazards, Disasters, and Catastrophes (3<sup>rd</sup> Cnd. Ed). Toronto, ON: Pearson.  
ISBN: 9780133076509.  
Cost: \$158.95

**Course Calendar Description:** Environmental hazards to human settlement and economy are examined with particular attention to meteorological, soil erosion, mass wasting, earthquake and volcanic phenomena. Not to be held with GEOG 2440.  
Prerequisite: a grade of C or better in one of GEOG 1290, GEOL 1340, or GEOL 1410, GEOG 1291 (053.129), GEOG 1200, GEOG 1201 (053.120), (007.134) GEOL 1360 (007.136) or permission of department head.

**Detailed Course description:** This course examines how the normal processes of the earth-atmosphere-hydrosphere-space systems result in events that are capable of dealing disastrous blows to humans on the scale of individual lives to civilizations. We will focus on the geologic processes of events such as earthquakes, landslides, volcanic eruptions, floods, hurricanes, tsunami, tornadoes, and asteroid impacts, and their local, national and global impact. In particular, we will examine the spatial and temporal occurrences of these hazards, methods and processes for hazard preparedness, response and recovery, and the social, economic and policy aspects that affect and, in many cases, compound the magnitude of the disasters associated with these natural phenomena. Case studies are drawn from contemporary and ancient societies.

### **Course objectives:**

- To provide you with a strong background in the academic discipline of the role of geography in the understanding and evaluation of natural hazards and disasters.
- To provide you with an understanding of hazards as a product of the interactions between society and environment with respect to their causes and effects and human responses to them.
- To have the students develop an understanding of the social and environmental components of hazards and their relationship to each other.
- To encourage you to listen, read and think critically and effectively.
- To provide you with a strong background in the academic discipline of human geography and prepare students for upper level study in geography.

### **Method of Evaluation**

Students will be evaluated via two (2) midterm tests (2 x 25% = 50%), one assignment (disaster summary; 15%) and one final exam (35%)

**Midterm Test I** (Part A): Oct. 12; 50 minutes (25% of course value)

**Midterm Test II** (Part B - cumulative): Nov. 9; 50 minutes (25% of course value)

**Disaster Summary:** Dec. 3, 2018 by 9:00 AM (15% of course value)

\*\*Additional information to be provided regarding assignment, including grading rubric.

**Final Exam (Cumulative):** TBA (35% of course value)

Examination Period: Dec. 10 to 21, 2018; 2-hours

**The Grade distribution** for this course is as follows:

**A+:** 90% or above (Exceptional)

**C+:** 65 - 69% (Satisfactory)

**A:** 80 - 89% (Excellent)

**C:** 60 - 64% (Adequate)

**B+:** 75 - 79% (Very Good)

**D:** 50 - 59% (Marginal)

**B:** 70 - 74% (Good)

**F:** ≤ 49% (Failure)

**Note: Students are not permitted to submit additional assignments in addition to the regular term tests, assignments, and final exam to improve their grade. The grading scheme will only be adjusted for documented, extenuating circumstances.**

### **Test and Final Exam Format:**

- Multiple choice, short answer and diagram questions will be based on lectures, assigned readings, videos, class discussions and activities, and the corresponding readings in the course textbook.
- Approximately 10% of the midterm and final exam questions may come from the course textbook, which may not have been covered in lecture. On the midterms and final exam, these questions will be identified as textbook questions in brackets at the end of the question "(textbook question)"
- The final exam is **cumulative** (approximately 50% of questions come from course material covered in Midterm I and II, and 50% of questions come from material covered after Midterm II).
- Students who miss a midterm test due to a documented medical or personal emergency will be offered a "makeup" test. **See Policy Regarding Missed Midterm Tests.**

### **Assignments:**

- Assignments are due by 9:00 AM on the due date as both a hard copy and digital copy (submitted through Assignment Submission on UM Learn).
- Ten percent (10%) a day will be deducted for late assignments, including weekends commencing as soon as the submission deadline has lapsed.
- Extensions without penalty will only be granted if the student has informed the instructor via email in advance of the assignment due date and accompanied by a medical certificate/professional documentation. The medical certificate/professional documentation must be presented via email within 5 days of the elapsed assignment due date. If no documentation is provided within 5 days, a grade of zero (0) will be assigned.
- If you are having difficulty with completing an assignment on time, please talk to the instructor ahead of time, as alternate arrangements may be possible.

### **Midterm Test and Final Exam Regulations:**

- In all tests and exams, ***NO unauthorized materials which many include, but is not limited to*** dictionaries, digital dictionaries, notes, books, textbooks, cellphones, PDAs (such as Palm Pilots), smart watches, text messaging devices etc. are permitted.
- Students are responsible for appropriately concealing their test and exam answers in order to prevent copying by other students. Allowing another student to copy off of your test/exam is considered cheating, and therefore academic misconduct.
- Please consult policy regarding ***Academic Integrity*** below.

### **Midterm Test Review:**

- Test questions will ***NOT*** be returned or posted on *UM Learn*.
- Tests will be reviewed during lecture as soon as possible (usually within two (2) days). While reviewing tests, students are permitted to make ***handwritten notes only***. Laptops or any device capable of capturing images or sound are not permitted.
- Students are permitted to review their midterm test provided they make an appointment via email within five (5) days of the in-class review.
- ***Students who fail to show up for an appointment without informing the instructor in advance, will not be rescheduled.***

### **Policy Regarding Missed Midterm Tests**

- You must inform the instructor promptly (within **48 hours** by email).
- Missed tests, makeup tests must be justified by a medical or personal emergency – appropriate supporting professional documentation must be provided within **48 hours** by email. Your medical documentation **MUST** be legible and state that you were **UNABLE** to write the midterm test due to a medical circumstance on the day of the midterm test or exam. A note that you “saw a doctor” is ***NOT*** considered medical documentation.
- Documentation must be presented within **48 hours** by email of the missed midterm test/makeup in order to qualify for a make-up test. Failure to provide this documentation within **48 hours** will result in a grade of zero (0) being assigned for the missed midterm test/makeup test.
- Please note that reasonable reasons for missing a test/online quiz/exam do ***NOT*** include: vacations, long weekends away, other course work, other tests or quizzes on the same day etc.
- Students have six (6) days after the missed midterm test to write a makeup test. If the student is unable to complete a makeup test within the six (6) day timeframe due to extended illness or compassionate distress (documented and presented within **48 hours** via email of the missed

makeup test), the student's midterm grade will be reweighted to the final exam. It is the student's responsibility to confirm via email the date, time, and location of the makeup test.

- If in doubt about what is an appropriate reason for missing a test/online quiz/exam, please ask the instructor prior to the test or due date via email. If you have not received a response from the instructor via email, students are highly encouraged to talk to the instructor prior to the test/online quiz/exam. Once a test/quiz/exam is started, regardless of the outcome, students will not be offered a makeup test.

*\*\*The "makeup" test format is at the discretion of the instructor, and may take any format, including any one or a combination of the following: essay, short answer questions, true and false, multiple choice etc.\*\**

### **Policy Regarding Missed Final Exam**

- If you cannot take the final examination due to illness or compassionate distress (documented), you must fill in a request for a deferred examination with your **own faculty** office. A courtesy email to the instructor is recommended.
- The Department of Environment and Geography schedules deferred exams for this course once the required paper work has been received from the student's home faculty.
- Students will be notified by the Department of Environment and Geography via email (U of M accounts only) when the deferred exam is scheduled.
- Deferred examinations will normally take place within 30 working days from the end of the examination series from which the examination was deferred. Writing a make-up test at your convenience may not be an option. For more information:  
<http://umanitoba.ca/student/records/finals/682.html>
- Students must bring student ID or photo identification to the deferred exam.
- It is the student's responsibility to communicate via their U of M email to make arrangements for the deferred exam.

### **The VW date (Voluntary Withdrawal date)**

- The last date for withdrawal from a course without academic penalty. So, if you find a course just is not right for you, you can withdraw but you must do so before the VW date. For this course, it is Nov. 19, 2018.

## **GEOG 2272 COURSE APPROACH AND POLICIES**

### **Course Delivery:**

- Course material will be delivered primarily through lectures, videos, in class discussion and corresponding textbook readings.
- As a courtesy, I will be posting partial course notes (fill in the blank) in PowerPoint format on *UM Learn*. It is your responsibility to access *UM Learn* and download these materials:  
<https://universityofmanitoba.desire2learn.com/d2l/home>
  - **Please note that I am under no obligation to post my PowerPoint notes; they are intended to assist you and not replace your personal notes.**
  - **These materials are subject to copyright (please see below note below regarding the use of copyrighted material).**
- For assistance with *UM Learn*:
  - Client Services Help and Solutions Centre (204.474.8600)
  - Email: [support@cc.umanitoba.ca](mailto:support@cc.umanitoba.ca)
  - 123 Fletcher Argue (Mon to Fri: 8:00 AM. - 8:00 PM)
- The pace of the lecture is based on the partial course notes.

- 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 the textbook. ***If you miss a class, you are responsible for obtaining the missing notes from a classmate. The instructor will not provide notes for any reason.***
- Students are **NOT** permitted to partially or entirely photograph, audio, or video record lecture, unless they have obtained prior permission from the instructor.

### **Student Expectations:**

- Know course and university policies.
- Read and understand the course syllabus.
- Students are expected to attend class, be on time, and take notes (though there is no numerical penalty; material and explanations are not necessarily on UM Learn or in the course textbook). The instructor does not provide copies of notes for any reason.
- Study course material (at least 2-hours for every hour of lecture)
- Read the textbook. Not all the textbook will be covered in the lectures but may be covered in the test and/or exam. Not all material covered in the lecture is found in the course textbook.
- Remain available for all classes and the final exam period
- Backup your course notes/assignments etc. University of Manitoba students have access to 1 TB of OneDrive Storage.
- Students may not use cell phones during class and if using laptops or tablets must only be used for class-related purposes.
- Be courteous and respectful. Policies on Respectful Work and Learning Environment (RWLE) and Inappropriate and Disruptive Student Behaviour below.
- Inform instructor promptly if you miss a midterm test, assignment submission deadline, or final exam
- Consult your *UM* email account regularly. This is how the instructor and university will communicate with you.
- Students are responsible for ensuring midterm tests and assignment grades have been recorded correctly on *UM Learn*. Students have five (5) days after the in-class midterm test review or assignment return to discuss any grading concerns. After this five-day period, **NO** changes will be made.

### **Using Copyrighted Material:**

- Please respect copyright. We will use copyrighted content in this course. I have appropriately acknowledged my sources and I have ensured that it is copied in accordance with copyright laws and University guidelines. Copyrighted works, including those created by me, are available for your private study and research, and you must not distribute them in any format without permission. Do not upload copyrighted works to a learning management system (e.g., 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).

### **Communicating with your Instructor:**

- **Effective September 1, 2013**, the U of M will only use your university email account for official communications, including messages from your instructors, department or faculty, academic advisors, and other administrative offices. [http://umanitoba.ca/registrar/email\\_policy/](http://umanitoba.ca/registrar/email_policy/)
- All communications must be professional and courteous.
- **E-mails** must include:
  - The subject heading (**GEOG 2272 A01**, a salutation (i.e. Dear, Hello, Good Morning . . . ), your full name and student number

- Come from a University of Manitoba Account (. . . . @myumanitoba.ca).
- Emails that do not conform to the above will not be returned.
- Emails requesting information that is found in the course syllabus, or information discussed in class, will not be returned.
- Allow at least **48 hours** for response (weekdays only).

### **Policy on Respectful Work and Learning Environment (RWLE):**

- Each individual has the right to participate, learn, and work in an environment that promotes equal opportunities and prohibits discriminatory practices.
- **RWLE [2016], Section 2.2** The University wishes to promote and support a community which embraces diversity and inclusion, provides for equality of opportunity, and recognizes the dignity of all people.
- **RWLE [2016], Section 2.3** Members of the University Community, including every student and employee, are entitled to a respectful work and learning environment that is:
  - (a) Free from Discrimination and provides for Reasonable Accommodation;
  - (b) Free from Harassment; and
  - (c) Collegial and conducive to early resolution of conflict between members of the University Community.
- **Respectful Work and Learning Environment Policy:** <http://bit.ly/2b63HQQ>
- **Student Discipline Bylaw:** <http://bit.ly/2b3RL3p>

### **Inappropriate and Disruptive Student Behaviour:**

- Inappropriate and disruptive behavior that interferes with the learning of other students, or the instructor's ability to teach will not be tolerated. Such behaviours would include but would not be limited to the following:
  - (a) threats to the physical safety of the individuals or others;
  - (b) verbal threats to or abuse of students or University personnel;
  - (c) recurring and willful damage of University property;
  - (d) inappropriate or disruptive behaviour as a result of misuse of drugs or alcohol on University property; and
  - (e) 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 cell phones in class, 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.
- **Inappropriate or Disruptive Student Behaviour Policy:** <http://bit.ly/2iRbHKU>
- **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 2018-2019, 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.**
- No notes, books, or electronic devices are permitted in the midterm tests or final exam whether accessed or otherwise.

### **Student Accessibility Services:**

- Students with disabilities are encouraged to contact Student Accessibility Services to facilitate the implementation of accommodations.  
Student Accessibility Services  
520 University Centre (Main Office), 155 University Centre (SAS Exam Centre)  
University of Manitoba, Winnipeg, MB R3T 2N2 Canada  
Phone: 204-474-7423 Fax: 204-474-7567 TTY: 204-474-9790  
Website: <http://umanitoba.ca/student/saa/accessibility/>  
Email: [student\\_accessibility@umanitoba.ca](mailto:student_accessibility@umanitoba.ca)
- Students are encouraged to make an appointment with the instructor to discuss the accommodations recommended by Student Accessibility Services.
- **The University of Manitoba Accessibly Policy:** <http://bit.ly/2bcrP6i>

### **Important Dates**

**September 5:** Lectures Begin

**September 18:** Course Drop Date

**September 19:** Registration and Revision Deadline

**October 9:** Thanksgiving – NO CLASSES (University Closed)

**November 12:** Remembrance Day - NO CLASSES (University Closed)

**November 13-16** Fall Term Break – NO CLASSES

**November 19:** Last Day for Voluntary Withdrawal

**December 10-21,** 2018 Final Exam Period

### **TENTATIVE LECTURE SCHEDULE (subject to change)**

Chapter 1: Introduction Natural Hazards

Chapter 2: Internal Structure of Earth and Plate Tectonics

Chapter 3: Earthquakes

Chapter 4: Tsunami

Chapter 5: Volcanoes and Volcanic Eruptions

Chapter 6: Landslides

Chapter 8: Subsidence and Soil Expansion and Contraction

Chapter 9: River Flooding

Chapter 11: Hurricanes and Extratropical Cyclones

## Schedule “A”

Schedule “A” is the new requirement passed by the University of Manitoba Senate in 2016 that requires that a mandated list of supports for services plus contact information is provided to students. *While this information is important and useful, should you require advice and support, the instructor is happy to meet with you and discuss issues and concerns*

## Student Resources

### Writing and Study Skills Support

The Academic Learning Centre (ALC) offers services that may be helpful to you as you fulfill the requirements for this course. Through the ALC, you may meet with a study skills specialist to discuss concerns such as time management, reading and note-taking strategies, and test-taking strategies. You may also meet one-on-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. Writing tutors can also give you feedback if you submit a draft of your paper online. (Please note that the online tutors require 48 hours, from Mondays to Fridays, to return your paper with comments.)

All 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 talk to a member of the Academic Learning staff by calling 480-1481 or by dropping in at 201 Tier Building.

### University of Manitoba Libraries (UML)

As the primary contact for all research needs, your liaison librarian 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).

**The English Language Centre** has workshop and programs in advanced academic and health-sciences English (located at 520, University Centre).  
Homepage: <http://umanitoba.ca/student/staffdir/elc.html>

### Student Accessibility Services

Student Accessibility Services (SAS) provides support and advocacy for students with disabilities of all kinds: hearing, learning, injury-related, mental health, medical, physical or visual. Students with temporary disabilities such as sprains and breaks are also eligible to use our services. SAS acts as a liaison between students and the faculty and staff of the University of Manitoba as well as support agencies within the province of Manitoba. Please phone: 474-6213 (voice) or 474-9690 (TTY) for



service. For more information, please visit the Student Accessibility website at:  
<http://umanitoba.ca/student/saa/accessibility/>

### **Mental Health**

For 24/7 mental health support, contact the Mobile Crisis Service at 204-940-1781.

### **Student Counselling Centre (SCC)**

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/index.html>

474 University Centre or S207 Medical Services (204) 474-8592

### **Student Support Case Management (SSCM)**

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>

### **Copyright**

All students are required to respect copyright as per Canada's Copyright Act. Staff and students play a key role in the University's copyright compliance as we balance user rights for educational purposes with the rights of content creators from around the world. The Copyright Office provides copyright resources and support for all members of the University of Manitoba community.

Visit <http://umanitoba.ca/copyright> for more information.

# University and Unit Policies, Procedures, and Supplemental Information

(Available On-Line)

## Your rights and responsibilities

- As a student of the University of Manitoba you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the policies and procedures of the University and the regulations that are specific to your faculty, college or school.

## The Academic Calendar

- <http://umanitoba.ca/student/records/academiccalendar.html> is one important source of information.
- View the sections University Policies and Procedures and General Academic Regulations. While all of the information contained in these two sections is important, the following information is highlighted.
- If you have questions about your grades, talk to your instructor. There is a process for term work and final grade appeals. Note that you have the right to access your final examination scripts. See the Registrar's Office website for more information including appeal deadline dates and the appeal form <http://umanitoba.ca/registrar/>
- You are expected to view the General Academic Regulation section within the Academic Calendar and specifically read the Academic Integrity regulation. Consult the course syllabus or ask your instructor for additional information about demonstrating academic integrity in your academic work. Visit the Academic Integrity Site for tools and support <http://umanitoba.ca/academicintegrity/> View the Student Academic Misconduct procedure for more information.

## Sexual Assault

- If you experience Sexual Assault or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting.
  - The Sexual Assault policy may be found at:  
[http://umanitoba.ca/admin/governance/governing\\_documents/community/230.html](http://umanitoba.ca/admin/governance/governing_documents/community/230.html)
  - More information and resources can be found by reviewing the Sexual Assault site  
<http://umanitoba.ca/student/sexual-assault/>

## Academic Programs and Regulations

- For information on regulations that are specific to your academic program, read the section in the Academic Calendar and on the respective faculty/college/school web site  
<http://umanitoba.ca/faculties/>
- Contact an Academic Advisor within our faculty/college or school for questions about your academic program and regulations <http://umanitoba.ca/academic-advisors/>

## Student Advocacy

- Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns.  
<http://umanitoba.ca/student/advocacy/>  
520 University Centre 204 474 7423  
student\_advocacy@umanitoba.ca