

University of Manitoba Faculty of Environment, Earth and Resources Department of Environment and Geography

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COURSE DETAILS

Course Title & Number: GEOG 2540 Weather and Climate

Number of Credit Hours: 3

Class Times & Days of Week: M/W/F 10:30 – 11:30 am

Location for Classes: 218 Wallace

Pre-Requisites: Grade of C or better in a minimum of three credit hours from

Geography courses numbered at the 1000 level, or permission of

department head.

Instructor Contact Information

Instructor(s) Name: Dr. Ron Stewart

Office Location: 470 Wallace

Office Hours or Availability: Make an appointment via in person during class or email during

regular daytime hours (8am - 4pm)

Office Phone No. 480-1052

Email: Ronald.stewart@umanitoba.ca

All emails will be replied to within 48 hours

Contact: Feel free to set up an after-class meeting in person in class or

via email during regular daytime hours (8am – 4pm)

General Course Information & Goals

This course is concerned with the basics of weather and climate. It will cover basic issues of energy, moisture and wind and apply these concepts to optics, weather systems and climate. Reference to Canadian and international weather and climate events will be made as

appropriate. Students should be prepared for basic mathematical/physical concepts to be treated in the course.

Using Copyrighted Material

Please respect copyright. We will use some 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 umanitoba.ca/copyright/ or contact um copyright@umanitoba.ca/.

Recording Class Lectures

The instructor (Stewart) 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 of the instructors. Course materials (both paper and digital) are for the participant's private study and research.

Textbook, Readings, Materials

Required textbook:

Ahrens, C.D., P.L. Jackson and C.E.J. Jackson, Meteorology Today: Second Canadian Edition. Brooks/Cole, 2016.

This is the latest edition of a meteorology textbook that has been used for many years.

Tools:

All students should ensure they have non-programmable <u>scientific</u> calculators.

Course Lectures/Materials:

All lecture powerpoints and other digital content will be provided to students via UM Learn System. Be sure to familiarize yourself with the UM Learn System.

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)

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_communic ation_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: Instructors Expect You To

The instructors will be in class for 5-10 minutes prior to and after the class time. We will treat you with respect and would appreciate the same courtesy in return. See Respectful Work and Learning Environment Policy.

Academic Integrity:

Please see the PDF file called "Schedule-A-ROASS.pdf" in the UM Learn course folder that contained Schedule "A" (Policies and Resources) that outlines academic integrity policies and student resources. Students should acquaint themselves with the University's policy on cheating and examination impersonation (see Section 7.0 of the University of Manitoba General Calendar). Plagiarism and cheating in general, is a serious academic offence.

All work/assignments submitted by each student is to be completed independently unless otherwise specified.

Students Accessibility Services

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

Expectations: You Can Expect Instructors To

We value each student's viewpoint and input to each class. Therefore, we encourage students to interact with us in class by asking questions and answering questions posed by instructors and other students in the class. We expect students to respond the best they can, however, we do not expect perfection!

Class Schedule

This schedule is subject to change at the discretion of the instructor and/or based on the learning needs of the students but such changes are subject to Section 2.8 of the - ROASS-Procedure).

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Date(s)	Class Content	Required Readings or Pre-class Preparation	Evaluation
Sept. 9	Introduction		
Approx. Sept. 12	Basics of the atmosphere	Chapter 1	
Approx. Sept. 14–26	Energy, temperature and pressure	Chapter 3	
Approx. Sept. 28 – Oct 5	Moisture and stability	Chapters 4 and 6	
Sept 26	Assignment #1 due		10%
Approx. Oct. 7 -	Condensation, clouds and precipitation	Chapters 5 and 7	

17			
17			
Approx.	Optics	Chapter 19	
Oct. 19			
Approx.	Wind from small scales to global	Chapters 9 and 10	
Oct 21 -	scales		
28			
Oct 31	Mid-term review		
Nov 2	Mid-term test		30%
Approx.	Air masses, fronts, cyclones and	Chapters 11, 12 and	
Nov. 5 -	forecasting	15	
14			
Approx.	Thunderstorms and tornadoes	Chapter 13	
Nov. 16 -			
21			
Nov 21	Assignment #2 due		10%
Approx.	Hurricanes	Chapter 14	
Nov. 23			
Approx.	Climate and climate change	Chapters 16 and 17	
Nov 25 -	-		
Dec. 2			
Approx.	Air pollution	Chapter 18	
Dec. 5 -			
7			
Dec 9	Review of course material		

Course Evaluation Methods

We will be using a combination of quizzes, assignments and tests for evaluation purposes. **No final exam is used.**

Refer to the Assignment Description on the following page of the syllabus for details of assignment answer formatting.

Due Date:	Assessment Tool	Value of
		Final Grade
Sept 26, 2016	Assignment #1	10%
	(expect marks back in 1 week)	
Nov 2, 2016	Mid-term test	30%
	(marks back in 1 week)	
Nov 21, 2016	Assignment #2	10%
	(expect marks back in 1 week)	
December exam period	Final exam	50%

Grading

It will be important to attend the lectures and interact with the instructors and other students. Students will not be permitted to write make-up tests or hand in late assignments except for documented medical or compassionate reasons. A grade of zero will be recorded for missed assignments, tests and quizzes. Late assignments will be penalized 25% per day (including weekends and holidays). Students may have access to their marks prior to the voluntary withdrawal date (November 18, 2016) and are encouraged to talk with instructors before a decision to withdraw is made.

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

Assignment Descriptions

See "Assignment Format.pdf" on UM Learn course directory.

Assignment Grading Times

See the Class Schedule Tables.

Assignment Extension and Late Submission Policy

Students will not be permitted to write make-up tests or hand in late assignments except for documented medical or compassionate reasons. A grade of zero will be recorded for missed assignments, tests and quizzes. Late assignments will be penalized 25% per day (including weekends and holidays). Students may have access to their marks prior to the voluntary withdrawal date (November 18, 2016) and are encouraged to talk with instructors before a decision to withdraw is made.