



COURSE OUTLINE
Mountain Meteorology - Topics in Geography

Contact: fargey@uvic.ca or 250-721-7342
Office Location: DTB B308
Office Hours: Tuesdays 2:30 to 3:30 pm, Fridays 9:30 am to 12:00 pm *or by appointment*
Class Meetings: Mondays and Thursdays 2:30 to 3:50 pm
Location: Clearihue Building, A303

COURSE DESCRIPTION

This course has been designed to introduce students to meteorological phenomena associated with mountain environments such as circulation systems and precipitation processes from the poles to the tropics. Throughout the term students will develop a basic understanding of latitudinal, altitudinal and topographic controls of meteorological elements in mountains, while also learning about their influence on regional climate. To compliment regular class meetings, a field data collection component will be included.

Pre-requisite: GEOG 272 – Introduction to the Climate and Hydrology

LEARNING OUTCOMES

1. Develop an understanding of the role mountains have on weather and climate.
 2. Understand the physical mechanisms that drive circulation and precipitation processes in mountainous terrain at a variety of spatial scales.
 3. Gain experience modelling meteorological features in mountainous terrain.
 4. Become familiar using meteorological instrumentation and analyzing data.
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REQUIRED TEXTS

The majority of your readings will come from two required textbooks, both freely available online through the library. *Links will be provided on CourseSpaces.* Additional readings and learning resources - typically peer-reviewed literature - will be provided throughout the course.

Mountain Weather Research and Forecasting, F. Chow et al. (eds.), 2013
Mountain Weather and Climate (3rd Ed.), G. Barry, 2008

EVALUATION

Assignment x 4 (in class)	(5% each)
Midterm Exam	20%
Research Paper/Presentation	30%
Final Exam	30%

Midterm and Final Exam format will include a combination of multiple-choice and of short-answer questions. Questions will be based on lectures, assigned readings, learning resources and in-class discussion. The final exam is comprehensive, although may be weighted more heavily on material not previously tested on. Electronic devices for use during exams are limited to non-graphing scientific calculators unless otherwise expressly permitted by the course instructor.

GRADING SYSTEM

As per the Academic Calendar:

Grade	Grade point value	Grade scale	Description
A+ A A-	9 8 7	90-100% 85-89% 80-84%	Exceptional, outstanding and excellent performance. Normally achieved by a minority of students. These grades indicate a student who is self-initiating, exceeds expectation and has an insightful grasp of the subject matter.
B+ B B-	6 5 4	77-79% 73-76% 70-72%	Very good, good and solid performance. Normally achieved by the largest number of students. These grades indicate a good grasp of the subject matter or excellent grasp in one area balanced with satisfactory grasp in the other area.
C+ C	3 2	65-69% 60-64%	Satisfactory, or minimally satisfactory. These grades indicate a satisfactory performance and knowledge of the subject matter.
D	1	50-59%	Marginal Performance. A student receiving this grade demonstrated a superficial grasp of the subject matter.
F	0	0-49%	Unsatisfactory performance. Wrote final examination and completed course requirements; no supplemental.
N	0	0-49%	Did not write examination or complete course requirements by the end of term or session; no supplemental.

GEOGRAPHY DEPARTMENT INFORMATION

Geography Department website: <http://geog.uvic.ca>

Undergraduate Advisor: Dr. Phil Wakefield geogadvisor@uvic.ca

Department Chair: Dr. Johan Feddema geogchair@uvic.ca

COURSESPACES

CourseSpaces learning management systems (LMS) will serve as the main avenue of communication (<http://coursespaces.uvic.ca>). Please monitor the page on a regular basis for course announcements. If you are having difficulty logging in or password problems, contact the Computer Help Desk Email: helpdesk@uvic.ca, Tel: 250-721-7687

IMPORTANT COURSE POLICIES

A high level of student cooperation and participation, involving asking and answering questions is expected. Students are expected to attend all lectures, take notes and be punctual for class.

Cell phones and portable music players must be **turned off or silenced** during lectures.

Students must complete all evaluation components to obtain credit. Failure to complete an any evaluation component without permission from the instructor, will result in an 'N' grade, which equals a Grade Point Value of 0.

Late assignments and/or final projects will be penalized **20% per day** (including weekends and holidays). Exceptions will only be granted for documented medical or compassionate reasons. Written proof must be provided within five working days. *Only the course instructor can grant exceptions.*

In-class assignments, unless otherwise stated, are due at the end of class period. Thereafter late penalties will be applied.

Students will not be permitted to write make-up tests or in-class assignments except for documented medical or compassionate reasons. Please inform the instructor of your situation promptly and present written proof within five working days. Any make-up test or examination or assignment may not follow the same format as the in-class one.

Conflicts with holidays or travel plans are not considered an acceptable reason to apply for a deferred examination or an assignment extension.

Topic handouts based on lecture presentations will be provided before the beginning of class meetings on CourseSpaces. These handouts will be removed **7 days** after the posting date. Students are responsible for downloading/saving and completing notes packages. *If you miss any material, make arrangements to get handouts from a fellow student, not from the instructor.*

Unless otherwise stated students are expected to complete assignments **independently.**

PLAGIARISM

Academic dishonesty (plagiarism, cheating) is a very serious matter in any academic institution and is dealt with severely at the University of Victoria. *The responsibility of the institution:* Instructors and academic units have the responsibility to ensure that standards of academic honesty are met. By doing so, the institution recognizes students for their hard work and assures them that other students do not have an unfair advantage through cheating on essays, exams, and projects. *The responsibility of the student:* Plagiarism sometimes occurs due to a misunderstanding regarding the rules of academic integrity, but it is the responsibility of the student to know them. If you are unsure about the standards

for citations or for referencing your sources, ask your instructor.

Infractions will be dealt with in accordance with University policy. Commonly, the penalty for any form of cheating/plagiarism is a grade of F on the tests or laboratory assignments, or a final grade of F in the course. However, depending on the severity of the case other penalties may include a record on the student's transcript or expulsion.

Please familiarize yourself with the University policy on academic integrity found in the Undergraduate Calendar at the following website. Please contact me if you have any questions.

<http://www.uvic.ca/learningandteaching/students/resources/expectations/>

ACCESSIBILITY

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a documented disability/health consideration that may require accommodations, please feel free to approach me and/or the Resource Centre for Students with a Disability (RCSD) as soon as possible. The RCSD staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations <http://rcsd.uvic.ca/>. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

POSITIVITY AND SAFETY

The University of Victoria is committed to promoting, providing and protecting a positive and safe learning and working environment for all its members. To ensure that all class members feel welcomed and equally able to contribute to class discussions, we will all endeavour to be respectful in our language, our examples, and the manner in which we conduct our discussions and group work. If you have any concerns about the climate of the class, please contact me.

Course Experience Survey (CES)

We value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. The survey is accessed via MyPage and can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.

Tentative Schedule

Week	Dates	Topics	Readings*
1	Sept 5-9	Topic 1, Topic 2	Chow et al. (2013) Ch 1 pg 1-12 Barry (2008) Ch 1
2	Sept 12-16	Topic 2	Barry (2008) Ch 2
3	Sept 19-23	Topic 3, Assignment 1	Barry (2008) Ch 3 Chow et al. (2013) Chs 2 & 3
4	Sept 26-30	Topic 3 cont.	
5	Oct 3-7	Topic 4, Assignment 2	Chow et al. (2013) Ch 6 Barry (2008) Ch 4 pgs 266-296, 316-342
6	Oct 10-14	Topic 4 cont.	
7	Oct 17-21	Midterm, Topic 5	Chow et al. (2013) Ch 1 pg 12-28
8	Oct 24-28	Topic 5, Assignment 3	
9	Oct 31-Nov 4	Topic 6 and Topic 7	Chow et al. (2013) Ch 8
10	Nov 7-11	Project work, <i>Reading break</i>	
11	Nov 14-18	Topic 7 cont., Assignment 4	
12	Nov 21-25	Project Presentations	
13	Nov 28-Dec 2	Project Presentations	

Topic 1: Introduction to Mountain Meteorology

Topic 2: Geographic control of mountain meteorological elements

Topic 3: Circulation Systems

Topic 4: Precipitation Processes

Topic 5: Mountain Weather Hazards

Topic 6: Observation Techniques – sampling the atmosphere

Topic 7: Forecasting and modelling in complex terrain

Important Dates Summary

Assignment 1 (in-class)	Sept 21
Assignment 2 (in-class)	Oct 5
Assignment 3 (in-class)	Oct 26
Assignment 4 (in-class)	Nov 16
Midterm	Oct 18
Term Project	
Project Proposal	Oct 27
Project Presentations	Nov 21 – Dec 1
Project Paper	Dec 2

October 31st – Last day for withdrawing from term courses without penalty of failure

November 9-11th – Reading Break

**additional readings will be added on CourseSpaces*