
COURSE OUTLINE
Mountain Meteorology



This course has been designed to introduce students to meteorological phenomena associated with mountain environments such as circulation systems and precipitation processes. Throughout the term students will develop an applied 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. An anticipated field trip option to Mt Washington on a Friday in February is also planned.

Class Meetings: Mondays and Thursdays 2:30 to 3:50 pm
Location: DSB C118

INSTRUCTOR INFORMATION

Dr. Shannon Fargey, Department of Geography, **DTB B308**, fargey@uvic.ca or 250-721-7342.
When emailing me please include 'GEOG 391 - your name - brief subject' in the subject line. This helps me sort through emails and makes it easier to respond to your message.

Office Hours: Wednesdays 10:00 to 12:00 pm or *by appointment*.

I welcome you to come and discuss your ideas and questions at times other than office hours, I have an open-door policy.

Profile: I am an Assistant Teaching Professor in the Geography Department. My role in the Department is primarily on program delivery, supporting student learning and discovery in Physical Geography, and Geomatics. I am passionate about hydrometeorological topics and field based learning, but would like to point out that my favourite topic in the world is mountain meteorology! so you are in luck! To learn more about me, and stay updated with exciting new studies in our field, please visit my website shannonfargey.com and follow me on Twitter @fargetmenot .

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.

REQUIRED TEXT

The majority of your readings will come from two required textbooks, both freely available online through the UVic 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)
Group Assignment	15%
Field Assignment	15%
Midterm Exam	20%
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.

COURSE COMMUNICATION

CourseSpaces learning management systems (LMS) will serve as the main avenue of communication in this course (<http://coursespaces.uvic.ca>). This is where I will put important resources that I think will help you along including course information, topic handouts, important dates, announcements, lab materials, and TA information (email addresses and office hours). Please go here first and visit often. If you are having difficulty logging in or password problems, contact the Computer Help Desk Email: helpdesk@uvic.ca, Tel: 250-721-7687

GEOGRAPHY DEPARTMENT INFORMATION

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

Undergraduate Advisor: Phil Wakefield geogadvisor@uvic.ca

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

GRADING SYSTEM

As per the Academic Calendar:

Grade	Grade point value	Grade scale	Description
A+	9	90-100%	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.
A	8	85-89%	
A-	7	80-84%	
B+	6	77-79%	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.
B	5	73-76%	
B-	4	70-72%	
C+	3	65-69%	Satisfactory, or minimally satisfactory. These grades indicate a satisfactory performance and knowledge of the subject matter.
C	2	60-64%	
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.

IMPORTANT COURSE POLICIES

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

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.

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.*

Late assignments will be penalized 20% per day (including weekends and holidays). Exceptions will only be granted for documented medical or compassionate reasons. Please inform the instructor of your situation promptly and present written proof within five working days. *Only the course instructor can grant exceptions.*

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

Cell phones must be turned off or silenced during lectures and labs and ONLY be used during field activities if pertinent to do so.

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

Please attend only the laboratory section for which you are registered. If you must miss a lab for exceptional circumstances, please make arrangements with your TA and Instructor in advance to attend another section. In this situation, you may be asked to attend a specific lab section because of space requirements and this may result in you missing content from other classes. This however does not change the due date of your lab assignment.

Details regarding your labs and their marks are managed by the course TAs. Please discuss any issues or questions on labs with your TA first and then come to see me if you would like further clarification.

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, for referencing your sources, or unauthorized use of an editor, please familiarize yourself with the University policy on academic integrity found in the Undergraduate Calendar at the following website <http://web.uvic.ca/calendar/undergrad/info/regulations/academic-integrity.html>. Please contact me if you have any questions.

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.

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 Centre for Accessible Learning (CAL) as soon as possible. The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations <http://www.uvic.ca/services/cal/>. 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.

COURSE INFORMATION AND ANTICIPATED SCHEDULE

Week	Dates	Tentative Schedule	Assignment Schedule ¹	Readings ²
1	Jan 1 to 5	NO CLASSES		
2	Jan 8 to 12	Topic 1 and 2		Chow et al. Ch 1 pg 1-12 Barry Ch 1
3	Jan 15 to 19	Topic 2 cont.	Assignment 1 (in class Jan 18)	Barry Ch 2
4	Jan 22 to 26	Topic 3		Barry Ch 3 Chow et al. Chs 2 & 3
5	Jan 29 to Feb 2	Topic 4	Assignment 2 (in-class Feb 1)	Chow et al. Chs 2 & 3 Barry Ch 4 pgs 266-296, 316-342
6	Feb 5 to 9	Topic 4 cont.	Group and Field Assignment introduced in class	
7	Feb 12 to 16	<i>Reading Break</i>		
8	Feb 19 to 23	Topic 5 and Midterm (Feb 22)		Chow et al. Ch 1 pg 12-28
9	Feb 26 to Mar 2	Topic 5 cont. and Topic 6	Assignment 3 (in-class Mar 1)	Chow et al. Ch 8
10	Mar 5 to 9	Topic 6 cont.		
11	Mar 12 to 16	Topic 7		
12	Mar 19 to 23	Topic 7 cont.	Assignment 4 (in-class Mar 22)	
13	Mar 26 to 30	Project Presentations	Group Assignment Due (26 or 29)	
14	April 2 to 6	No class (Apr 2), Project Presentation	Field Assignment Due Apr 5	

¹There may be need to adjust the in-class assignment schedule as a result of a guest speaker presentation. You will be informed and consulted no less than 2-weeks prior to the date about any changes to the schedule.

²Additional Reading Assignments and Learning Resources will be posted on CourseSpaces. Please regularly for updates.

Topic Reference

Topic 1: Introduction to Mountain Meteorology

Topic 2: Geographic control of mountain meteorological elements

Topic 3: Circulation Systems

Topic 4: Precipitation Processes

Topic 5: Observation Techniques – sampling the atmosphere

Topic 6: Mountain Weather Hazards

Topic 7: Forecasting and modelling in complex terrain

Important Dates Summary

Assignment 1 (in-class)	Jan 18
Assignment 2 (in-class)	Feb 1
Assignment 3 (in-class)	March 1
Assignment 4 (in-class)	March 22
Midterm	Feb 22
Final Exam	TBD University exam period

University of Victoria Important Dates

Jan 19th - Last day for adding courses that begin in the first term.

Feb 28th – Last day for withdrawing from the first term courses without penalty of failure.

Additional important dates can be accessed through the link below.

<http://web.uvic.ca/calendar/general/dates.html>