



GEOGRAPHY FINAL COURSE OUTLINE: FALL 2017

GEOGRAPHY 509

H(3-3)

Permafrost

Section	Days	Time	Location
LEC 01	TuTh	14:00 – 15:15	ES 342
LAB 01	We	10:00 – 12:50	ES 307

Instructor: Brian Moorman	Office: ES 324
Tel: 220 4835	Email: moorman@ucalgary.ca
Office Hours: Tu 13:00-14:00 or by appointment	

Please note: The appropriate emergency evacuation assembly point for all classes taught in Earth Sciences is ICT Food Court.

Course Description

Development, characteristics and significance of permafrost, including the thermal and hydrological processes and resulting periglacial geomorphology and geotechnical implications.

Course Objectives:

The objective of this course is to build on the fundamental knowledge and skill from GEOG 305 and 307 focusing on the area of permafrost and geocryology. More specifically, the course is designed to develop a deeper understanding and more advanced problem solving skills, related to permafrost, and to develop advanced debate and communication skills. The course will elevate students' knowledge and skills to a level appropriate for future use in workplace/career.

Course Learning Outcomes:

The Department of Geography is committed to student knowledge and skill development. The table below lists the key learning outcomes for this course, the program-learning outcomes they facilitate and the expected level of achievement.

Course Learning Outcomes	PLO(s)	Level(s)
Explain the formation processes of permafrost and excess ice	7	3
Explain the relationship between the atmosphere and subsurface climate	7	3
Apply energy transfer principles to predict the extent of permafrost	4	3
Use instrumentation to collect soil thermal and physical properties	3	3
Debate the impact of climate change on permafrost ground conditions	7	2
Critique engineering designs to minimize environmental impacts in permafrost terrain	4	1
Hypothesize the impact of changing surface conditions on the ground and conduct an experiment to test it	4	1

PLOs = Program Learning Outcomes: 1 = reflect and communicate diverse human-environment perspectives, 2 = identify and explain human-environment processes, 3 = implement sampling, data collection, analyses and communication methods, 4 = analyze spatial and temporal aspects of human-environment systems, 5 = employ knowledge, arguments, and methodologies for solving human-environment problems, 6 = evaluate geospatial data and manipulate it to create cartographic products, 7 = communicate geographic concepts using oral, written, graphic, and cartographic modes, and 8 = demonstrate literacy skills. **Levels:** (1) Introductory, (2) Intermediate, (3) Advanced.

Prerequisites: Geography 305 and 307

Attendance and participation: I consider attendance and participation to be a critical component of this class. To get a great grade in this class you have to convince me you've done the work and have understood the material. One way to do this is by attending class and being an active, informed participant. Students who miss class risk receiving a lower grade than they might have secured with regular attendance. To this end 10% of your grade is reserved for attendance and participation. While this is not a lot, it is enough to go from a B to an A- (or the reverse). Part of the participation grade will come from the presentation of a "Question of the Day". This is a short presentation (2-3 minutes) answering a basic question that will introduce a new topic that we will be covering.

Classroom Environment: Feel free to ask questions and express opinions in this course, approaching readings and ideas actively and critically. As you do so, however, please strive to be courteous to your fellow students.

Readings: *The Periglacial Environment* (3rd edition) by Hugh M. French, plus additional readings posted on D2L. (see the schedule for specific chapters and timing)

Grading (Weighting):

Mid-term Exam (in class)	20%
Final Exam (schedule by the registrar)	30%
Labs	20%
Term project	20%
Participation (e.g. question of the day)	10%

Note: It is not essential to pass all elements to pass the course as a whole.

Grading System:

96-100	A+	77-80	B	59-61	C-
90-95	A	71-76	B-	55-58	D+
86-89	A-	65-70	C+	50-54	D
81-85	B+	62-64	C	0-49	F

For additional detailed course information posted by the Instructor Desire2Learn at <https://d2l.ucalgary.ca/d2l/home>

Human subjects

Students will not participate as subjects or researchers on human subjects in this course.

USRI

At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

Writing across the Curriculum

Writing skills are not exclusive to English courses and, in fact, should cross all disciplines. The University supports the belief that throughout their University careers, students should be taught how to write well so that when they graduate their writing abilities will be far above the minimal standards required at entrance. Consistent with this belief, students are expected to do a substantial amount of writing in their University courses and, where appropriate, members of faculty can and should use writing and the grading thereof as a factor in the evaluation of student work. The services provided by the Writing Support Services can be utilized by all undergraduate and graduate students who feel they require further assistance.

Principles of Conduct

The University of Calgary Calendar includes a statement on the Principles of conduct expected of all members of the University community (including students, faculty, administrators, any category of staff, practicum supervisors and volunteers) whether on or off the University's property. This statement applies in all situations where the members of the University community are acting in their University capacities. All Members of the University Community have a responsibility to familiarize themselves with this statement which is available at: <http://www.ucalgary.ca/pubs/calendar/current/k.html>

Internet and electronic communication device information:

No restriction on the use of laptops and tablets in class if they are used to take notes or find information relevant to the class, and if there is *no disturbance or distraction of other students or the instructor*. Phones must be turned off during class time unless you are a health care or law enforcement professional with appropriate ID.

Plagiarism

Academic dishonesty is not an acceptable activity at the University of Calgary and students are **strongly advised** to read the Student Misconduct section in the University Calendar. Quite often, students are unaware of what constitutes academic dishonesty or plagiarism. The most common are 1) presenting another student's work as your own 2) presenting an author's work or ideas as your own without proper referencing and 3) using work completed for another course. This activity will not be tolerated in this course and students conducting themselves in this manner will be dealt with according to the procedures outlined in the calendar: <http://www.ucalgary.ca/pubs/calendar/current/k-5.html>

Academic Accommodations:

Students needing an accommodation because of a Disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities. The procedure can be found at: ucalgary.ca/policies/files/policies/student-accommodation-policy

Students needing an accommodation based in relation to their coursework or to fulfil requirements for a graduate degree, on a Protected Ground other than Disability, should communicate this need, preferably in writing to their instructor or the appropriate Associate Dean or Department Head.

ucalgary.ca/policies/files/policies/student-accommodation-policy

Students needing an Accommodation unrelated to their coursework or the requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Vice-Provost (Student Experience).

Freedom of Information and Protection of Privacy

FOIP: The Freedom of Information and Protection of Privacy (FOIP) legislation disallows the practice of having students retrieve assignments from a public place, e.g., outside instructor's office, the department office, etc. Term assignments will be returned to students individually, during class or during the instructor's office hours; if students are unable to pick up their assignments from the instructor, they provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

Re: Posting of Grades and Picking-up of Assignments

- All assignments will be handled through D2L or personally.
- Their own grades will be available to each student on D2L by password access. Grades will not be available at Geography's main office.

Contact Information for Student and Faculty Representation

- SU VP Academic Phone: 220-3911 and e-mail: suvpaca@ucalgary.ca
- SU Faculty Rep. Phone: 220-3913 and e-mail: arts1@ucalgary.ca

The students ombudsman office information can be found at:

<http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info>

Campus Safewalk

Campus Security, in partnership with the Students' Union, provides the Safewalk service, 24 hours a day, to any location on Campus including the LRT, parking lots, bus zones and University residences. Contact Campus Security at 220-5333 or use a help phone, and Safewalkers or a Campus Security officer will accompany you to your Campus destination.

Faculty of Arts Program Advising and Student Information Resources

- Have a question, but not sure where to start? The new Faculty of Arts Students Centre is your information resource for everything in Arts! Drop in at SS 102, call us at 403-220-3580 or email us at ascarts@ucalgary.ca you can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210 7625 or visit them at the MacKimmie Library Block.

Contact for Students Union Representatives for the Faculty of Arts:

arts1@su.ucalgary.ca, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca
