



GEOGRAPHY FINAL COURSE OUTLINE: FALL 2017

**GEOGRAPHY 503
H(3-0)**

Climate Change

Section	Days	Times	Location
LEC01	TuTh	15:30 – 16:45	ES 920

Instructor: Shawn Marshall	Office: ES 404
Telephone: 220 4884	Email: shawn.marshall@ucalgary.ca

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

Official Course Description:

Overview of global climate dynamics and interactions between the ocean, atmosphere, biosphere, cryosphere and biogeochemical cycles. Analysis of climate change in Earth's past, present and future, examining both natural and anthropogenic influences on global climate.

Course Objectives:

The objectives of GEOG 503 are to become literate in climate science and to acquire critical judgement in understanding, interpreting, and communicating climate change science, policy, and media reporting. Students will develop and exercise advanced problem-solving, analytical, and communication skills.

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 essential physical, chemical, biological, and geological processes that govern Earth's climate.	2	3
Explain natural vs. anthropogenic influences on Earth's climate, and the nuanced superposition of these processes.	2, 5	3
Students should be able to explain how climate change in Earth's past informs us about future climate change, and ways in which it is not relevant.	2, 4	2
Students are expected to demonstrate independent research skills and resourcefulness in examining climate change scenarios.	7, 3	2
Students should be able to critically discuss and debate societal and policy issues concerning future climate change.	1	2
Students should be equipped to critically evaluate public and media discussions on climate change science.	1, 8	3
Students should be able to apply a solid understanding of climate science into their broader geography program and their workplace projects.	2, 5	3

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.

Prerequisite: Geography 305. We will introduce several topics in oceanography that are covered in Geography 403, but we will review this material quickly in Geography 503.

Supplementary Fees: (field trips etc). N/A

Text(s)/Readings: *Introduction to Modern Climate Change* (2012). A. Dessler, ISBN: 9780521173155, Cambridge University Press, Cambridge, U.K. Available at the bookstore. The text is required. Other literature resources will be provided on Desire2Learn (D2L).

Grading (Weighting)	Quizzes (5 @ 6%)	30 %
	Assignments (3 @ 10%)	30 %
	Midterm Exam (20%)	20 %
	Term Paper (20%)	20%

It is not essential to pass all elements/components to pass the course as a whole.

Quizzes will be held at the start of class, from 15:30-15:50, and will be based on the lecture material and reading assignments from the previous two weeks (i.e. since the last quiz). A normal lecture will follow. Your best 4 out of 5 quizzes will count towards your quiz mark.

Quiz Dates: Sept 28, Oct 12, Oct 26, Nov 9, Dec 5.
Midterm: Thursday, November 23

There will be no final exam. The midterm exam will be held in class, over 75 minutes, and will consist of short-answer questions to test for understanding and integration of the course content.

Grading System

90-100	A+	77-80	B+	67-70	C+	55-60	D+
85-90	A	73-77	B	63-67	C	50-55	D
80-85	A-	70-73	B-	60-63	C-	0-50	F

GPA Equivalence

A+	4.00	Outstanding performance
A	4.00	Excellent-superior performance
A-	3.70	Approaching excellent performance
B+	3.30	Exceeding good performance
B	3.00	Good performance
B-	2.70	Approaching good performance

C+	2.30	Exceeding satisfactory performance
C	2.00	Satisfactory performance
C-	1.70	Approaching satisfactory performance
D+	1.30	Marginal pass. Insufficient preparation for subsequent courses in the same subject.
D	1.00	Minimal Pass. Insufficient preparation for subsequent courses in the same subject.
F	0	Failure. Did not meet requirements.

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”.

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