#### **GEOGRAPHY FINAL COURSE OUTLINE: WINTER 2022**

#### **GEOGRAPHY 303**

GFC HOURS (3-0)

### **Introduction to Climate Change**

| Section | Location | Meeting Time | Meeting Day |
|---------|----------|--------------|-------------|
| LEC 01  | HNSC 122 | 9:00-11:45   | Tues/Thurs  |

| Instructor: Zoe Walker | Office: Earth Science 436     |
|------------------------|-------------------------------|
| Telephone:             | Email: zoe.walker@ucalgary.ca |

#### **Official Course Description**

Introduction to climate change science, climate change impacts, and Canadian and international climate policy. Topics include an introduction to the atmosphere, ocean, and cryosphere, the carbon cycle, the greenhouse effect, natural climate variability in Earth history, climate models, and an overview of economic, political, social, and policy dimensions of climate change.

# **Course Objectives**

Students will learn the fundamentals of the physical climate system and the underlying science of global climate change on anthropogenic and geologic timescales. By the end of the course, students will be able to discuss and analyze how climate change impacts a broad spectrum of societal and environmental systems, and the role of domestic and international science policies in addressing climate change. Students will understand and be able to distinguish between natural and anthropogenic climate change processes, climate forcing and feedbacks, and climate change science, policy, and politics.

#### **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 to which they contribute, and the expected level of achievement.

| Course Learning Outcomes   | PLO(s)* | Level(s)** |
|--|---------|------------|
| Students should be able to explain the essential physical, chemical, and     |         | 1          |
| biological processes that govern Earth's climate.                            |         |            |
| Students should be able to explain natural vs. anthropogenic influences      | 2,5     | 1          |
| on Earth's climate, and the timelines associated with these events           |         |            |
| Students should be able to explain how IPCC and UNFCCC processes             | 2,4,5   | 1          |
| work and the way that climate science feeds into climate policy.             |         |            |
| Students should be able to critically assess and discuss societal and policy | 1,2,8   | 2          |
| issues concerning future climate change                                      |         |            |
| Students should be equipped to critically evaluate public and media          | 1,8     | 2          |
| discussions on climate change science  |         |            |
| Students should be able to perform simple calculations and analyses          | 3,4     | 1          |
| with spreadsheet-based climate data and theoretical equations                |         |            |

### \*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.

# **Prerequisites:**

No prerequisites required

There are no prerequisite skills for this course; however, students will be working in groups for some inclass activities. Mentimeter will be used to engage students using course related questions. Mentimeter is available through any internet browser (no app required) and participation is optional (but encouraged!).

### **Learning Resources**

Recommended textbook.

Burch, Understanding Climate Change: Science, Policy, And Practice Ed: 2

## **Grading (Weighting)**

| Assessment                             | Weight<br>(total) | Dates                          | Submission notes    |
|--|-------------------|--------------------------------|---------------------|
| Group Activities 3 at 5% each          | 15%               | Various                        | Completed and       |
|  |                   | (See detailed calendar)        | submitted in class  |
| Individual Activities 3 at 5% each     | 15%               | Various                        | Submitted to d2l    |
|  |                   | (See detailed calendar)        | dropbox             |
| Assignments 3 at 5% each               | 15%               | Various                        | Submitted to d2l    |
|  |                   | (See detailed calendar)        | dropbox             |
| Guest lecture reflections 3 at 5% each | 15%               | Various                        | Submitted to d2l    |
|  |                   | (See detailed calendar)        | dropbox             |
| Term Test I                            | 15%               | Tuesday July 11 <sup>th</sup>  | Completed in-person |
|  |                   | 9:45-11:45                     |                     |
| Term Test II                           | 15%               | Tuesday July 25 <sup>th</sup>  | Completed in-person |
|  |                   | 9:45-11:45                     |                     |
| Term Test III                          | 10%               | Tuesday August 8 <sup>th</sup> | Completed in-person |
|  |                   | 9:45-11:45                     |                     |

## **Course Format**

- The lecture periods will be comprised of lectures, videos, and in-class group activities and individual assignments and activities. Because each lecture period is 2.75 hours, activities will vary from day-to-day and within a period.
- Term tests are not cumulative.
- For additional detailed course information posted by the instructor, log on to the D2L shell for this course.

### There is no registrar scheduled final exam for this course.

- It is *not* essential to pass all components to pass the course as whole
- Only pencils, erasers and calculators are allowed in exams. No other materials or devices are allowed.
- Late assignment policy. Late assignments will receive a deduction of 20% per day, including weekends.

<sup>\*\*</sup>Levels: 1 = Introductory, 2 = Intermediate, and 3 = Advanced.

#### **Grading System**

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

#### Missed work

This course has been designed for students to come to class and engage with the material. However, should particular activities be missed, please refer to the list below to see the appropriate course of action. Communication is key and the more notice I have, the more likely I'll be able to come up with a solution. Please note, students who are absent are responsible to contact their instructor to determine impact of the missed assessment. A student who is absent from an in-person assessment in the course and does not reach out to the instructor in a timely manner will receive a grade of zero on the assessment.

### **Group Activities**

Group activities are completed and submitted during the lecture period. Students unable to participate in group activities because of documented illness; family emergency or religious observance will have the weight of the group activities shifted to the next group activity. If this is the last group activity of the course, other arrangements may be made. <a href="https://www.ucalgary.ca/pubs/calendar/current/g-1-2.html">https://www.ucalgary.ca/pubs/calendar/current/g-1-2.html</a>

#### **Individual Activities**

Individual activities are introduced in class and students will be given class time to work on them. Individual activities are due the Monday after they are introduced. If additional time is required, an extension request may be submitted to the teaching assistant for the course. If no request is submitted, the Late assignment policy will apply. Late assignments will receive a deduction of 20% per day, including weekends.

### **Assignments**

Similar to individual activities, assignments are introduced in class and students will be given class time to work on them. assignments are due the day before the term test for that theme of the course. If additional time is required, an extension request may be submitted to the teaching assistant for the course. If no request is submitted, the Late assignment policy will apply. Late assignments will receive a deduction of 20% per day, including weekends.

#### Guest lecture reflections

There will be three guest lectures this term. Following the guest lecture, students will complete a reflection on the lecture. Students unable to attend guest lectures because of documented illness; family emergency or religious observance will have the weight of the reflection shifted to the next group reflection. <a href="https://www.ucalgary.ca/pubs/calendar/current/g-1-2.html">https://www.ucalgary.ca/pubs/calendar/current/g-1-2.html</a>. If this is the last guest lecture of the course, other arrangements may be made.

## **Term Tests**

Students unable to write term tests because of documented illness; family emergency or religious observance will have the weight of the test shifted to the next term test. <a href="https://www.ucalgary.ca/pubs/calendar/current/g-1-2.html">https://www.ucalgary.ca/pubs/calendar/current/g-1-2.html</a>. If this is the last term test of the course, other arrangements may be made.

# **Supplementary Fees**

Not applicable

For additional detailed course information posted by the instructor, visit the course Desire2Learn page online at https://d2l.ucalgary.ca/d2l/home.

#### SUPPLEMENTAL INFORMATION

#### **Principles of Conduct**

The University 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 university property. This statement applies in all situations where members of the university community are acting in their university capacities. All members of the university community have a responsibility to familiarize themselves with the principles of conduct statement, which is available at: <a href="https://www.ucalgary.ca/pubs/calendar/current/k.html">www.ucalgary.ca/pubs/calendar/current/k.html</a>.

# Plagiarism, Cheating, and Student Misconduct

The University of Calgary is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect.

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 at: <a href="https://www.ucalgary.ca/pubs/calendar/current/k-3.html">www.ucalgary.ca/pubs/calendar/current/k-3.html</a>. 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 adequate citation, and (3) using work completed for another course. Such activities will not be tolerated in this course, and students suspected of academic misconduct will be dealt with according to the procedures outlined in the calendar at: <a href="https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-procedure">https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-procedure</a>

### **Instructor Intellectual Property**

Information on Instructor Intellectual Property can be found at <a href="https://ucalgary.ca/legal-services/university-policies-procedures/intellectual-property-policy">https://ucalgary.ca/legal-services/university-policies-procedures/intellectual-property-policy</a>

### Freedom of Information and Protection of Privacy

Freedom of Information and Protection of Privacy (FOIP) legislation in Alberta disallows the practice of having students retrieve assignments from a public place, such as outside an 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 must provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

### **Human subjects**

Students will NOT participate as subjects or researchers on human subjects.

#### **Guidelines for Zoom Sessions**

Zoom is a video conferencing program that will allow us to meet at specific times for a "live" video conference, so that we can have the opportunity to meet each other virtually and discuss relevant course topics as a learning community.

To help ensure Zoom sessions are private, do not share Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.

The use of video conferencing programs relies on participants to act ethically, honestly and with integrity; and in accordance with the principles of fairness, good faith and respect (as per the <u>Code of Conduct</u>). When entering Zoom or other video conferencing sessions (such as MS Teams), you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behavior in these sessions may affect others. Participants are required to us names officially associated with their UCID (legal or preferred names listed in the Student Centre) when engaging in these activities. Instructors/moderators can remove those whose names do not appear on class rosters. Non-compliance may be investigated under relevant University of Calgary conduct policies (e.g. Student Non Academic Misconduct Policy). If participants have difficulties complying with this requirement, they should email the instructor of the class explaining why, so the instructor may consider whether to grant an exception, and on what terms. For more information on how to get the most out of your Zoom sessions visit: <a href="https://elearn.ucalgary.ca/guidelines-for-zoom/">https://elearn.ucalgary.ca/guidelines-for-zoom/</a>.

If you are unable to attend a Zoom session, please contact your instructor to arrange an alternative activity for the missed session (e.g., to review a recorded session). Please be prepared, as best as you are able, to join class in a quiet space that will allow you to be fully present and engaged in Zoom sessions. Students will be advised by their instructor when they are expected to turn on their webcam (for group work, presentations, etc.).

The instructor may record online Zoom class sessions for the purposes of supporting student learning in this class – such as making the recording available for review of the session or for students who miss a session. Students will be advised before the instructor initiates a recording of a Zoom session. These recordings will be used to support student learning only and will not be shared or used for any other purpose.

### Posting of Grades and Picking-up of Assignments

Graded assignments will be returned by the instructor or teaching assistant personally during scheduled lecture or laboratory periods, unless they are made available electronically through the course D2L webpage. Grades and assignments will not be available at the Department of Geography's main office.

### **Academic Accommodations**

It is the student's responsibility to request academic accommodations, according to the university policies and procedures listed in the University Calendar.

The student accommodation policy can be found at: <a href="https://ucalgary.ca/legal-services/university-policies-procedures/student-accommodation-policy">https://ucalgary.ca/legal-services/university-policies-procedures/student-accommodation-policy</a>

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:

https://ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure

Students needing an accommodation based on a protected ground other than disability should communicate this need, preferably in writing to their instructor or the Department Head (email: <a href="mailto:freeman@ucalgary.ca">freeman@ucalgary.ca</a>).

### **Copyright Legislation**

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright <a href="https://ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy">https://ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy</a> and requirements of the copyright act (<a href="https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html">https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html</a>) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Act.

#### **Wellness and Mental Health Resources**

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness, and academic success and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support, or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, <a href="https://www.ucalgary.ca/wellnesscentre/services/mental-health-services">https://www.ucalgary.ca/wellnesscentre/services/mental-health-services</a>) and the Campus Mental Health Strategy website (<a href="http://www.ucalgary.ca/mentalhealth/">http://www.ucalgary.ca/mentalhealth/</a>).

# **Contact Information for Student and Faculty Representation**

- Student Union VP Academic 403-220-3911, <a href="mailto:suvpaca@ucalgary.ca">suvpaca@ucalgary.ca</a>
- Students Union Representatives for the Faculty of Arts 403-220-3913, <a href="mailto:arts1@su.ucalgary.ca">arts1@su.ucalgary.ca</a>, <a href="mailto:arts1">arts1@su.ucalgary.ca</a>, <a href="mailto:arts1">arts1</a>, <a href="mailto:arts1">arts1</a>,
- Student Ombuds Office information can be found at: www.ucalgary.ca/ombuds/

#### **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 station, 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.