

## GEOG 2133A– Climate Change Course Outline: Section 001 Fall 2023

This course is a blended, flipped course and is taught online and in-person

### 1. Course Information

	Delivery Mode	Day/Time	Location
Lecture	Online	Asynchronous	
Lab	In-person	Thurs. 2:30-3:30	

\*Details about design and delivery of the course are listed below in Section 6



Classes Start	Fall Reading Week	Classes End	Study day(s)	Exam Period
September 7	October 30-November 5	December 8	December 9	December 10-22

September 15, 2023: Last day to add a first-term half course

October 9, 2023: Thanksgiving Holiday

November 13, 2023: Last day to drop a first term half course without penalty



Course Instructor	Contact Information	Office Hours
Dr. Katrina Moser	kmoser@uwo.ca	Please email for an appointment

Teaching Assistant(s)	Contact Information	Office Hours
Natalia Hrynko	TBD	TBD
Victoria Bomberry	TBD	TBD
Maria Martinez Mendoza	TBD	TBD



#### Forums and Email:

This term we will be using Forums in Owl for questions regarding the class. The system is highly catered to getting you help fast and efficiently from classmates, the TA, and myself. Please send your questions to the whole class because many questions you have will be shared by others. If you have a personal matter to discuss, please email me or the TAs directly. **Please put Geog. 2133 in the subject line or your email may be missed.**

### 2. Textbook



All resources will be posted in OWL

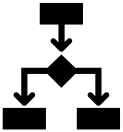
### 3. Course Description

#### Calendar Description

Weaving together Eurowestern and Indigenous science and knowledge we explore the processes underlying human-induced climate change and the threats posed to both physical and social systems. Discuss and reflect on how you will be affected by climate change and practise ways to take action and influence our shared future.

#### Course Description

Climate change is one of the most important environmental issues that we face today, and it will have consequences for everyone, although those consequences are not evenly distributed. This course braids together euro-western and Indigenous sciences – with an emphasis on how systems work, the collection and interpretation of data, and the development and use of numerical models to represent physical processes. This course examines the causes that underlie human-induced climate change and describes climates that have existed in the past and those projected to occur in the future. We examine the impacts of climate change on the physical environment and human societies. We will discuss options that may be used to address climate change providing the opportunity to explore your role in climate change now and in the future.



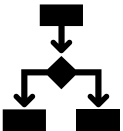
Online Modules and Mandatory, In-Class, 1-Hour, Weekly Discussions  
Prerequisite checking is the student's responsibility

Senate Regulations state, “unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.”

### 4. Course Format

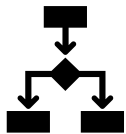
#### General Format

This is a blended course meaning it has online and in-person components. There are many types of blended courses; this course is a *flipped* course. In a traditional class students learn fundamental concepts in the classroom through lectures and build on that knowledge outside of the classroom. In a flipped course students learn fundamental knowledge prior to class and in class expand on their knowledge through activities and discussion with the instructor. It is critical (and mandatory) to come to class and to review the weekly online materials prior to the in-person class. The class is comprised of seven modules – each module will take one to two weeks to complete.



Attendance in the in-class discussions is required.

All course material will be posted to OWL: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and discussed with the class.



Google Chrome or Mozilla Firefox are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click [here](#). Using the right browser is important, especially when using different features integrated with OWL

If students need assistance, they can seek support on the [OWL Help page](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

### **Modules**

Seven modules will be provided on Owl and will include videos, interactive Story Maps, activities, and short readings. There will be interactive materials and activities interspersed throughout to reinforce what you are learning. ***When listening to the lectures avoid distractions and turn off all social media.*** For Indigenous teachings and storytelling aspects of the course, we recommend focusing on listening first and then taking notes about your key takeaways at the end of the video. For videos with EuroWestern science content, you may wish to take notes as you go, and then reflect on the guiding questions for your key takeaways at the end. There is more information about learning from these different perspectives on the Owl Course Site Under Course Content, Welcome and Getting Started, Tips for Success. It is a good idea to review what you consider to be the most important parts of each lesson. We provide some guiding questions to remind you to review.

### **Classroom Culture of Participation**

This course requires active participation from students, both for assessment, and to enhance the learning experience of the entire class. Active learning benefits students by supporting higher-level learning and improves retention of material (M.J. Prince, 2004). Participation will be graded, and there are formal and informal expectations of involvement.

**Please come to class prepared to be involved and respectful of your classmates and the instructor team.** Derogatory or offensive remarks and responses are not acceptable, nor are they effective forms of academic debate.

In-class Participation is worth 10% of your grade and will be primarily based on attendance. Attend 11 of 13 classes – you can miss 2 classes with no penalty or explanation required. However, once two classes are missed academic consideration will be required.

All course material will be posted to OWL: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and discussed with the class.

## **5. Course Content and Schedule**

Use the schedule below to plan your semester. Each module is divided between at least 2 weeks, with tasks split over the 2-3 week period to help keep you up to date with your work. Each of the 6 online modules takes between 3 and 7 hours to complete, and should not be left until the last minute. Additional details will be available in each module. Use the checklists under each module to help you stay on track and ensure you complete all the required tasks.



Week	Dates	Online Module Work	In-Class Discussion Topic	Reminders/ Due Dates
<i>Module 1: Ways of knowing the climate is changing</i>				
1	Sept 7-8	Welcome and Getting Started – this is an important class! Module 1: Introducing Connecting for Climate Change Action (video)	<i>Introduction Welcome and Getting Started</i>	Read the syllabus and check out the course landing page. Answer VoiceThread “Why are you taking this course?”
2	Sept 11-15	Module 1: Lesson 1 and Activity on Positionality	<i>What are your thoughts on Positionality and Climate Change?</i>	Power Flower exercise
3	Sept 18-22	Module 1: Lesson 2 and Graded Activity: Connect with others, share an aspect of your identity (Contribution 1)	<i>What is Your Connection to the Land?</i>	Contribution 1: Connect with others, share an aspect of your identity. Due Sept. 21 Module 1 Quiz Sept 22
<i>Module 2: The Earth, Climate &amp; Connections</i>				
4	Sept 25-29	Module 2: Creation stories, Lesson 1, 2 and Graded Activity: Connect to your local green space activity (Contribution 2)	<i>Calculating your Carbon Footprint</i>	Climate Change Challenge I (CCCI) Starts!! <b>Sign onto the challenge by Sept. 29; Start Your Challenge by Oct. 1</b>
5	Oct 2-6	Module 2: Lesson 3, 4 5 and 6	<i>TBD</i>	Contribution 2: Connect to your local green space Oct 5 Module 2 Quiz Oct 6
<i>Module 3: Why is the Earth’s Climate Changing?</i>				
6	Oct 9-13	Module 3: Why is the Earth’s Climate Changing and read a story, Lesson 1-4.	<i>What caused climate change?</i>	CCC1 continues
7	Oct 16-20	Module 3: Graded Activity: Intergenerational Interview (Contribution 3) and Lesson 5	<i>Meet the course creators</i>	CCC1 Continues Contribution 3: Connect about Intergenerational Learning Due Oct 19 Module 3 Quiz Oct 20
<i>Module 4: Emissions, Responsibility, and Reimagining Economies</i>				

8	Oct 23-27	Module 4: Lesson 1, 2, 3 and 4, Activity: Listen, Read and reflect on the rights of Mother Earth	<i>CCC I Sharing Day</i>	CCC I Sharing Day CCC1 due Oct 27 Module 4 Quiz Nov. 10
9	Oct 30-Nov 3	READING WEEK	READING WEEK	READING WEEK
<i>Module 5: Climate Pathways from Data and Experience</i>				
10	Nov 6-10	Module 5: Lesson 1, 2	<i>CCC II Prep A very simple climate model</i>	Module 4 Quiz Nov 10
11	Nov 13-17	Module 5: Lesson 3, 4, and Graded Activity: Explore Spatial and Social Inequity related to Climate Change (Contribution 4)	<i>TBD</i>	CCC II continues Contribution 4: Reflect on what you've learned about Inequity and Climate Change Impacts Due Nov. 16 Module 5 Quiz Nov 17
<i>Module 6: Exploring Climate Action</i>				
12	Nov 20-24	Module 6: Lesson 1 and Activity: Explore current approaches and solutions to reach our desired climate future	<i>TBD</i>	CCC II Ends
13	Nov 27-Dec 1	Module 6: Lesson 3 and 4	<i>TBD</i>	CCC II Due Nov 30 Module 6 Quiz Dec 1
<i>Module 7: Climate Action for Better Climate Future</i>				
14	Dec 4-8	Module 7: Lesson 1 and Graded Activity: What is your gift for climate justice or action? (Contribution 5)	<i>C4CCA Team will share their gifts and hear about yours!</i>	Contribution 5: Share you Climate Action Gift? Due Dec. 7 Reflective Journal Due Dec 12

## 6. Learning Outcomes

Upon successful completion of this course, students will be able to:



- Describe how, and why, the Earth's climate is changing due to human impacts, with evidence from multiple ways of knowing with specific focus on Western and Indigenous scientific approaches
- Explain how Indigenous perspectives on relationships to land inform understanding of climate change, the environment, and climate action.



- Explore the relationships between climate change and social justice and the systems that create these dynamics Acknowledge your own role in climate change, and carry out and connect with others about an individual action that address your carbon footprint
- Acknowledge the collective roles and responsibilities of humans as part of earth's system in impacting climate change negatively and positively
- Advocate for changes that will impact climate change at the local or provincial scale.

## 7. Communication



- Students should check the OWL site every 24 – 48 hours.
- A weekly update will be provided on the OWL announcements.
- Students should email their instructor(s) and teaching assistant(s) regarding personal issues. **Students should use forums on Owl for questions on course content and logistics.** Students should post all course-related content on the discussion forum so that everyone can access answers to questions; the discussion forums will be monitored daily by instructors and teaching assistants.
- The discussion forums will be monitored daily by instructors or teaching assistants.
- Emails will be monitored daily during business hours, but not during weekends. Students will receive a response in 48 hours during business hours. Please only email when you have a personal issue, otherwise use forums. It is imperative that you put Geog. 2133 in the subject line or your email may be missed. If you have not received a response within 48 hours you should email again.
- For any communication, the centrally administered **e-mail account** provided to students will be considered the individual’s official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner. You can read about the privacy and security of the UWO email accounts [here](#).

## 8. Evaluation

**The evaluation methods described in the course outline are essential requirements for the course.**

Below is the evaluation breakdown for the course. Any deviations will be communicated.

Evaluation Components	Percentage of Course Grade	Assignment Due Dates
Contribution 1: Connect with others, share an aspect of your identity	5	Sept 21
Contribution 2: Connect to your local Greenspace	5	Oct 5
Contribution 3: Connect about Intergenerational Learning	5	Oct 19

Evaluation Components	Percentage of Course Grade	Assignment Due Dates
Contribution 4: Explore Spatial and Social Inequity and Climate Change	5	Nov 16
Contribution 5: What is your Climate Change gift?	5	Dec 7
Climate Change Challenge Part 1	20	Oct 27
Climate Change Challenge II	20	Nov 30
Module Quizzes	10	One quiz per module: Sept 22, Oct 6, Oct 20, Nov 10, Nov 17, Dec 1 Quiz is open 24 hours; you have one hour in the 24-hour period to write the quiz (until 11:55 pm on the last Friday of each module)
Final Reflective Journal	15	Dec. 12 at 5:00pm
Participation	10	Attendance and participation in Thursday classes throughout the term.

The evaluation methods described in the course outline are essential requirements for the course. Students are responsible for all module materials as well as materials covered during discussions.

- All assignments are due at **5:00 pm EST** unless otherwise specified
- Written assignments will be submitted to Turnitin (statement in policies below)
- Students will have unlimited submissions to Turnitin
- Rubrics will be used to evaluate assessments and will be posted.
- After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days



Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	low 50	Fail

### **Information about late or missed evaluations:**

For all **assessments worth 10% or more** medical academic accommodation is required. Documentation must be submitted by the student directly to the appropriate Faculty Dean's office. It will be the Dean's office that will determine if accommodation is warranted. You must submit the missed assignment within seven days of the assignment due date. If you cannot submit an assignment within that time frame your final grade will be determined based on assessments submitted.

6 Quizzes are done online. We count the top 5 only, so if you miss one it is okay. Each counted quiz is worth 2% of your final grade. There are no make-up quizzes because you may miss 1 quiz without penalty, but after that any missed quizzes will receive a 0 without medical accommodations.

- Late assessments worth ***less than 10% (except for quizzes) without medical accommodations*** will be subject to a late penalty 10%/day. No assignments will be accepted after 7 days past the assignment due date. Quizzes will not be taken after their due date.
- Late assessments worth ***less than 10% with medical accommodations*** can be submitted up to seven days after the assignment due date. If they are not submitted after seven days the final grade will be based on all submitted assessments.
- Students must complete 81% of the course assessments to pass the course.**

**Grades will not be adjusted on the basis of need. It is important to monitor your performance in the course. Remember: *You* are responsible for your grades in this course.**

**Below are very brief descriptions of each assessment type. More information for each assessment will be available on the Owl Site under the Course Assessment Help Page.**

***Contributions (5 totalling 25%):*** This course provides knowledge about climate change and our hope is that you will use that knowledge and your gifts to take meaningful action to help mitigate climate change. The course is divided into seven modules and there are six contribution exercises. Each contribution will offer you the opportunity to explore something about yourself, your space in the world and how you can contribute to finding a solution to the climate change challenge. Most graded contributions follow an ungraded activity designed to inspire your thinking. Since each module is 2-3 weeks, you have plenty of time to complete your contributions, so be sure not to leave them for the last minute – they take time and thought. The value of each contribution is 5% and details for each will be provided on Owl. Rubrics can be viewed ahead of time on the Rubric tab.

***Climate Change Challenges (2X20%=40%):*** There are two climate change challenges. These activities are designed to motivate you to take action and make changes to help mitigate climate change. Changes can be made individually or collectively, but we all need to pitch in! The climate change crisis will only be solved when everyone steps up to help. In these exercises we want you to think strategically about what you can do to make the greatest change most effectively. In the first you will work independently to reduce your personal carbon footprint and in the second you will work in a team or individually to find a way to promote change in your community.



**Module Quizzes (Best 5 out of 6 = 10%):** Each module will end with a short, online quiz. The quizzes are multiple choice and short answer and are designed to help you review what you have learned and stay on track. You will have one hour to take the quiz during a 24-hour period on the Friday after the final in-person class at the end of each module. Your final quiz mark will consist of your top 5 out of 6 marks, making each of 5 quizzes worth 2% each.

**Participation (10%):** We will meet each week in person, and the participation part of the grade is based on class attendance. According to Katharine Hayhoe, climate scientist, author and activist, ‘the most important thing you can do to fight climate change is to talk about it.’ This message is front and center in her [TED talk](#). One of our main motivations in creating this course was to provide a safe place for students to talk about climate change, and therefore we view participation as a critical part of the course. This is your opportunity to ask me questions about the online materials, and my chance to ask you questions about what you are learning. The class will usually run as a discussion on a topic relevant to the online materials that week. The purpose of the discussions is to give you a chance to share your views and to listen to your thoughts on climate change. You can check for guiding questions or materials to help you prepare for class in the Course Content tab under “In-class discussions”. You must attend 11 out of 13 of the in-person classes to get full marks. Participation is graded using iClickers.

**Final Reflective Journal (15%):** In the final reflective journal, you’ll answer questions that will require you to share your biggest takeaways and shifts in thinking from what you’ve learned in the course.

## 9. Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: [Academic Accommodation for Students with Disabilities](#).

### Academic Consideration for Student Absence

The University recognizes that a student’s ability to meet their academic responsibilities may, on occasion, be impaired by medical illness. Illness may be acute (short term), or it may be chronic (long term), or chronic with acute episodes. The University further recognizes that medical situations are deeply personal and respects the need for privacy and confidentiality in these matters. However, in order to ensure fairness and consistency for all students, academic accommodation for work representing 10% or more of the student’s overall grade in the course shall be granted only in those cases where there is documentation indicating that the student was seriously affected by illness and could not reasonably be expected to meet their academic responsibilities.

[Policy on Academic Consideration for Medical Illness - Undergraduate Students](#)

[Student Medical Certificate \(SMC\)](#)

## **Religious Accommodation**

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the [Western Multicultural Calendar](#).

## **10. Make-up Examinations**

Makeups will be granted with approved documentation only. All documentation for missed exams must be provided to the Academic Counselling Office within 48 hours of the scheduled exam, otherwise the instructor will assign a grade of zero.

The format and content of make-ups may differ substantially from the scheduled test or examination.

## **11. Use of Electronic Devices**

iClickers will be used in our class to grade participation. Sometime during each class questions will be asked. These questions let me and students know if they are understanding key concepts, but also take attendance. You will receive 1 point for participation for each class assuming that you answer at least one question. You must be in class to answer the question. You may 2 classes without penalty, no questions asked. However, if you miss more than two classes, you will be graded a 0. If you will miss more than two classes you will require medical accommodations, so make sure to only miss classes when you really can't attend. Please make sure to set up your iclicker account prior top the second class Sept. 14. Complete instructions are available [here](#). A link is also available under Module 1 below the checklist site. Students' privacy will be protected with respect to data gathered from the responses; data gathered using the devices will not be used for research purposes without the express written permission of the student.

Western's guidelines for the use of Personal Response Systems ("clickers") state the following:

1. It is the responsibility of the student to ensure that the device is activated and functional. Students must see their instructor if they have any concerns about whether the clicker is malfunctioning.
2. Students must use only their own clicker. The use of somebody else's clicker or iclicker account constitutes a scholastic offence. The possession of a clicker or ithe use of a clicker account belonging to another student will be interpreted as an attempt to commit a scholastic offence.

## 12. How to Be Successful in this Class:

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.

1. Review the “Welcome and Getting Started” Tab under the Course Content Tab. Make sure to review the Tips for Success here too.
2. Invest in a planner or application to keep track of your courses. Populate all your deadlines at the start of the term and schedule time at the start of each week to get organized and manage your time. Use the graphic syllabus for inspiration as to how you should budget your time.
3. Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
4. Follow weekly checklists created on OWL or create your own to help you stay on track.
5. Take notes as you go through the lesson material. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively.
6. Connect with others. Try forming a study group and try meeting on a weekly basis for study and peer support.
7. Ask questions. If you are struggling with a topic, check the online discussion boards or contact your instructor(s) and or teaching assistant(s).
8. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.



## 13. Continuity of Education Plan (in-person class pivoting to online learning)

In the event of a COVID-19 resurgence during the course that necessitates the university to direct courses move away from face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor.

## 14. Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com ( <http://www.turnitin.com> ).

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

## 15. Western’s Commitment to Accessibility

The Department of Geography and Environment strives at all times to provide accessibility to all faculty, staff, students and visitors in a way that respects the dignity and independence of people with disabilities.

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519-661-2147 for any specific question regarding an accommodation. Information regarding accommodation of exams is available on the Registrar's website.

More information about "Accessibility at Western" is available.

## **16. Mental Health**

If you or someone you know is experiencing distress, there are several resources here at Western to assist you. Please visit Western's Health and Wellness website for more information on mental health resources.

## **17. Support Services**

Western's Support Services  
Student Development Centre

## **18. Important Dates**

September 7: Classes resume

September 15: Last day to add a first term half course

October 9: Thanksgiving Holiday – Department Office Closed

October 30 to November 5: Fall Reading Week (No classes; Department Office open)

November 13: Last day to drop a first term half course without penalty

November 30: Last day to drop a full course without penalty

December 8: Classes end

December 9: Study day

December 10-22: Examination Period

## **Program Learning Outcomes and Skills**

### **Geographical Skills**

- ✓ Spatial thinking, spatial analysis & spatial processes of human and/or environmental processes (e.g. cultural, social, political, economic, scientific)

### **Generic Skills**

- ✓ Literature and secondary data sources: information search and retrieval, meta-analysis of published data, synthesis of information sources and literature, annotated bibliographies.
- ✓ Critical and reflective reading, listening, thinking.
- ✓ Writing – education and practice in writing essays, reports, notebooks.
- ✓ Oral communication/presentation: -structured class discussions (seminars, small-group interaction, debates), individual and group presentations.