


GEOG 2133A – Climate Change Course Outline: Section 001 Fall 2020



Although this academic year might be different, Western University is committed to a **thriving campus**. We encourage you to check out the [Digital Student Experience](#) website to manage your academics and well-being. Additionally, the following link provides available resources to support students on and off campus: <https://www.uwo.ca/health/>.

1. Technical Requirements



Stable internet connection



Laptop or computer



Working microphone



Working webcam

Recommended technical specifications are available at:
<https://registrar.uwo.ca/academics/timetables.html>

2. Course Information



Delivery Mode	Days	Time
Online – asynchronous and synchronous	Synchronous Discussions on Thursdays	2:30-3:30

*Details about design and delivery of the course are listed below in Section 4

Classes Start	Reading Week	Classes End	Study day(s)	Exam Period
September 9	November 2 - 8	December 9	December 10	December 11 - 22

* September 17, 2020: Last day to add a first-term half course

** November 12, 2020: Last day to drop a first-term half course without penalty



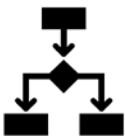
Instructor team:	Dr. Katrina Moser	Nils Mann (TA)	Kevin Ng (TA)
Primary method of contact:	Piazza This term we will be using Piazza for questions regarding the class. The system is highly catered to getting you help fast and efficiently from classmates, the TA, and myself. Rather than emailing questions to the teaching staff, I encourage you to post your questions on Piazza. If you have any problems or feedback for the developers, email team@piazza.com. Find our class signup link at: https://piazza.com/uwo.ca/fall2020/geog2133		
Email	kmoser@uwo.ca	nmann25@uwo.ca	kng342@uwo.ca
Office Hours	By appointment	Thurs. 1:30-2:30	Thurs. 3:30-4:30



TAs will be available to answer your questions during office hours on Zoom, but we strongly urge you to use Piazza to get answers to your questions as quickly as possible.

3. Calendar Description

Climate change is one of the most important environmental issues that we face today. This course examines the processes that underlie natural and human-induced climate change at global and regional scales and describes the resultant climates that have existed and those projected to occur in the future. We also examine the impacts of past and future climate change on the physical and human environment. We will discuss options that may be used to address climate change and their linkage to the physical basis of climates. The course is taught from a physical scientist's perspective – with an emphasis on how systems work (processes), use of the scientific method, collection and interpretation of data and development and use of numerical models to represent physical processes.



3 lecture hours, 0.5 course

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. Textbook



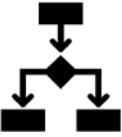
SimUtext Climate Change Section – Available for approximately \$10 USD online. Students will be emailed instructions to access this online textbook. The textbook is interactive and will help students understand course content. Students will be required to read the textbook and complete questions in the textbook as part of their participation grade. Questions for quizzes and exams will be, in part, taken from the SimUtext.

5. Course Objectives and Format

The main objectives of this course are:

1. to provide students with the opportunity to learn about climate change from a scientific, fact-based perspective
2. to allow students to explore how they can contribute to solving the climate change problem
3. to provide students the opportunity to reflect on what they have learned and consider areas for their own personal growth

Mode	Dates	Time	Frequency
Virtual synchronous	Th	2:30-3:30	weekly
Virtual asynchronous	N/A	8 hours	weekly

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- Asynchronous pre-work must be completed prior to synchronous sessions
 - Attendance at two synchronous sessions with Dr. Katrina Moser is required – dates will be provided for each discussion group
 - On weeks you are not meeting with Dr. Moser, you will meet with your discussion group. These groups allow for discussion prior to doing reflective journal entries and allow students to share knowledge and information on course material.
 - Missed work should be completed within 48 hours of due date, otherwise the allotted points will be added to the final exam
 - A recorded or written summary will be provided for synchronous sessions meeting with Dr. Moser
 - Closed captioning will be provided on audio or video recordings

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.

6. Course Content and Schedule



Week	Dates	Topic	Important Reminders
0	Sept 9 – 13	Introduction	Read the syllabus Sign up for Piazza and SimUText (see introductory email)
1	Sept 14 – 20	Climate Change	Video Reflective Journal Introduction RJE1 DUE (MUST DO – 09/18/2020)
2	Sept 21 – 27	Framework and Underlying Principals	Assignment 1 Handout SimUText 1 Opens (09/21/2020) RJE 2 DUE (OPTIONAL) (09/25/2020)
3	Sept 28 – Oct 4	The Earth's Climate System	SimUText 1 DUE (10/2/2020) SimUText 2 Opens (09/28/2020) RJE 3 DUE (OPTIONAL) (10/02/2020)
4	Oct 5 – 11	Atmospheric and Oceanic Circulation	Assignment 1 DUE (10/09/2020) SimUText 2 DUE (10/09/2020) RJE 4 DUE (OPTIONAL) (10/09/2020)
5	Oct 12 – 18	The Greenhouse Effect and Carbon Cycle	SimUText 3 Opens (10/12/2020) RJE 5 DUE (OPTIONAL) (10/16/2020)
6	Oct 19 – 25	Radiative Forcings and Feedbacks	MID-TERM (Opens 10/23/2020 12:01am; Closes 10/25/2020 11:59pm) SimUText 3 DUE (10/23/2020)
7	Oct 26 – Nov. 1	Emissions, Projections and Models	Carbon Footprints and CCC Readings SimUText 4 Opens (10/26/2020) RJE 6 DUE (OPTIONAL) (10/30/2020)
	Nov 2 – 8	Reading Week	N/A
8	Nov 9 – 15	Climate Proxies and Archives	CCC Starts Nov. 9 and goes to Nov. 23 SimUText 4 DUE (11/13/2020) RJE 7 DUE (OPTIONAL) (11/13/2020)
9	Nov 16 – 22	Lessons from the Past	RJE 8 DUE (OPTIONAL) (11/21/2020)
10	Nov 23 – 29	Looking to the Future: Potential Impacts	Assignment 2 Handout CCC Voice Thread DUE (11/26/2020) SimUText 5 Opens (11/23/2020) RJE 9 DUE (REQUIRED) (11/26/2020)
11	Nov 30 – Dec 6	Addressing Climate Change	CCC Discussion ENDS: FORUMS CLOSE (12/03/2020) SimUText 5 DUE (12/04/2020) RJE 10 (OPTIONAL) (12/04/2020)
12	Dec 7 – 9	The Last Word	Video Assignment 2 Due (12/06/2020) RJE 11 (REQUIRED) (12/08/2020)

***Blue** indicates something is due; unless specified otherwise all assignments are due at 5:00pm; SimUText always opens at 9:00am on the Monday of that week.

7. Online Participation and Engagement



- Students are expected to participate and engage with content as much as possible
- Students can participate with Dr. Moser during 2 sessions and post on after watching the recording
- Students can participate by interacting in the forums with their peers and instructors

8. Communication



- Students should check the OWL site every 24 – 48 hours
- A weekly update will be provided from Dr. Moser on OWL
- Students should email their instructor(s) and teaching assistant(s) using Piazza
- For any other 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](#).
- Emails and Piazza will be monitored daily; students will receive a response in 24 – 48 hours
- This course will use OWL forums for discussions
- Students should post all course-related content questions on Piazza so that everyone can answer and access answers to questions
- The discussion forums will be monitored daily by instructors or teaching assistants

9. Learning Outcomes

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



- understand the principles of Earth's climate system;
- describe causes for natural variability of climate and appreciate the data sources and techniques used to assess past and future climate
- know the human impact on the Earth's climate and its consequences
- understand the interrelated nature of climate with the atmosphere, hydrosphere, biosphere, lithosphere and cryosphere
- assess scientific data on climate
- synthesize and communicate climate change information
- make informed decisions related to climate change
- be informed and prepared to promote change from local to global scales

10. Evaluation

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

Assessment	Weight	Due Date
Assignment 1	10%	Oct. 9, 2020 5:00pm
Assignment 2	10%	Dec. 6, 2020 5:00pm
CCC Voice Thread	10%	Nov. 26, 2020 5:00pm
CCC Discussion Participation	5%	Dec. 4, 2020 5:00pm
Reflective Journal	10%	See schedule for entry due dates
SimUText	5%	See schedule for due dates
Mid-Term Exam	20%	Oct. 25, 2020 11:59pm
Final Exam	30%	TBD

Students are responsible for material covered in the lectures as well as SimUText, videos and activities.

- All assignments are due at 5:00 pm EST unless otherwise specified
- Exams will be 3 hours in length and will be online.
- Written assignments will be submitted to Turnitin (statement in policies below)
- 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+	90-100	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	below 50	Fail

Information about late or missed evaluations:

- Late assessments without illness self-reports will be subject to a late penalty 10%/day
- Late assessments with illness self-reports should be submitted within 24 hours of submission of the last illness self-report
- An assessment cannot be submitted after it has been returned to the class; after this time the weight will be transferred to the final grade
- A make-up mid-term is not possible. The weight of a missed mid-term will be transferred to the final grade.

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.

11. 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

Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the term, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For Western University policy on Consideration for Student Absence, see

[Policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs](#)

and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

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](#).

12. Make-up Final 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.

13. Use of Electronic Devices

Electronic devices will be allowed during tests and examinations.

14. 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. Be engaged, participate, be disciplined and be organized.
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 one page syllabus to help you.
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. Do all the tasks assigned each week that week.
5. Follow weekly checklists created on OWL or create your own to help you stay on track.
6. Take notes as you go through the lesson material. Treat this course as you would a face-to-face course. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively than just reading or watching the videos.
7. Connect with others. Try forming an online study group and try meeting on a weekly basis for study and peer support.
8. Do not be afraid to ask questions. If you are struggling with a topic, check the online discussion boards or contact your instructor(s) and or teaching assistant(s).
9. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.



15. Use of Recordings

All of the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational purposes related to this course, including evaluations. The recordings may be disclosed to other individuals under special circumstances. Please contact the instructor if you have any concerns related to session recordings.

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

16. Statements concerning Online Etiquette

Some components of this course will involve online interactions. To ensure the best experience for both you and your classmates, please honour the following rules of etiquette:

- Please “arrive” to class on time
- Please use your computer and/or laptop if possible (as opposed to a cell phone or tablet)
- Ensure that you are in a private location to protect the confidentiality of discussions in the event that a class discussion deals with sensitive or personal material
- To minimize background noise, kindly mute your microphone for the entire class until you are invited to speak, unless directed otherwise
- In order to give us optimum bandwidth and web quality, please turn off your video camera for the entire class unless you are invited to speak
- Please be prepared to turn your video camera off at the instructor’s request if the internet connection becomes unstable
- Unless invited by your instructor, do not share your screen in the meeting

The course instructor will act as moderator for the class and will deal with any questions from participants. To participate please consider the following:

- If you wish to speak, use the “raise hand” function and wait for the instructor to acknowledge you before beginning your comment or question
- Remember to unmute your microphone and turn on your video camera before speaking
- Self-identify when speaking
- Remember to mute your mic and turn off your video camera after speaking (unless directed otherwise)

General considerations of “netiquette”:

- Keep in mind the different cultural and linguistic backgrounds of the students in the course.
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings. The exchange of diverse ideas and opinions is part of the scholarly environment.
- Be professional and scholarly in all online postings. Cite the ideas of others appropriately.

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

17. 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>).

[Include this paragraph on computer marked multiple-choice tests if relevant. If not relevant delete the paragraph below]

Computer-marked 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.

18. Western's Commitment to Accessibility

The Department of Geography 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.

19. 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.

20. Support Services

Western's Support Services
Student Development Centre

21. Important Dates

September 9: Classes resume

September 17: Last day to add a first term half course

October 12: Thanksgiving Holiday – Department Office Closed

November 2 to November 8: Fall Reading Week (No classes; Department Office

open)

November 12: Last day to drop a first term half course without penalty

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

December 9: Classes end

December 10: Study day

December 11-22: Examination Period