

Course Schedule

IMPORTANT: ALL TIMES EASTERN - Please see the [University Policies](#) section of your Syllabus for details

For more details, please refer to the [Grade Breakdown](#) page.

Module	Week	Readings and Other Assigned Material	Activities and Assignments	End/Due Date
Module 1	Week 1: Introduction	Chapter 1: Climate Change in the Public Sphere	Groups for Discussion Activities will be created by Technical Support	Check after Tuesday, May 1, 2018 at 12:01 AM
			Red Group Answers by	Thursday, May 3, 2018 at 6:00 PM
			Week 1 Discussion Activities - Red and Blue groups finish discussion by	Sunday, May 6, 2018 at 11:55 PM

	Week 2: Introduction to the Climate System	Chapter 2: Basic System Dynamics	Blue Group Answers by	Thursday, May 10, 2018 at 6:00 PM
			Week 2 Discussion Activities - Red and Blue groups finish discussion by	Sunday, May 13, 2018 at 11:55 PM
			Complete your weekly quiz (Quizzes).	Monday, May 14, 2018 at 11:55 PM
	Week 3: The Earth and Energy	Chapter 3: Climate Controls: Energy from the Sun	Red Group Answers by	Thursday, May 17, 2018 at 6:00 PM
			Week 3 Discussion Activities - Red and Blue groups finish discussion by	Sunday, May 20, 2018 at 11:55 PM
			Complete your weekly quiz (Quizzes).	Tuesday, May 22, 2018 at 11:55 PM

	Week 4: The Carbon Cycle	Chapter 5: Climate Controls: The Greenhouse Effect	Blue Group Answers by	Thursday, May 24, 2018 at 6:00 PM
			Week 4 Discussion Activities - Red and Blue groups finish discussion by	Sunday, May 27, 2018 at 11:55 PM
			Complete your weekly quiz (Quizzes).	Monday, May 28, 2018 at 11:55 PM
	Week 5: Past and Future Climate	Chapter 7: Climate Models	Red Group Answers by	Thursday, May 31, 2018 at 6:00 PM
			Week 5 Discussion Activities - Red and Blue groups finish discussion by	Sunday, June 3, 2018 at 11:55 PM
			Complete your weekly quiz (Quizzes).	Monday, June 4, 2018 at 11:55 PM

Module 2	Week 6: Impacts on Natural Systems	Chapter 9: Climate Change Impacts on Natural Systems	Submit your Module 1 Discussion Summary Assignment (Weeks 1-5)	Wednesday, June 6, 2018 at 11:55 PM
			Blue Group Answers by	Thursday, June 7, 2018 at 6:00 PM
			Week 6 Discussion Activities - Red and Blue groups finish discussion by	Sunday, June 10, 2018 at 11:55 PM
			Complete your weekly quiz (Quizzes).	Monday, June 11, 2018 at 11:55 PM
	Week 7: Impacts on Humans	Chapter 10: Climate Change Impacts on Human Systems	Red Group Answers by	Thursday, June 14, 2018 at 6:00 PM
			Week 7 Discussion Activities - Red and Blue groups finish discussion by	Sunday, June 17, 2018 at 11:55 PM

			Complete your weekly quiz (Quizzes).	Monday, June 18, 2018 at 11:55 PM
Module 2	Week 8: Assessing Vulnerability	There is no chapter assigned this week.	Blue Group Answers by	Thursday, June 21, 2018 at 6:00 PM
			Week 8 Discussion Activities - Red and Blue groups finish discussion by	Sunday, June 24, 2018 at 11:55 PM
			Complete your weekly quiz (Quizzes).	Monday, June 25, 2018 at 11:55 PM
	Week 9: Adaptation	There is no chapter assigned this week.	Red Group Answers by	Thursday, June 28, 2018 at 6:00 PM
			Week 9 Discussion Activities - Red and Blue groups finish discussion by	Sunday, July 1, 2018 at 11:55 PM

			Complete your weekly quiz (Quizzes).	Tuesday, July 3, 2018 at 11:55 PM
Module 3	Week 10: Introduction to Mitigation	There is no chapter assigned this week.	Assignment 1: Climate Change Impacts and Adaptation at the Community Scale is due	Wednesday, July 4, 2018 at 11:55 PM
			Submit your Module 2 Discussion Summary Assignment (Weeks 6-9)	Wednesday, July 4, 2018 at 11:55 PM
			Blue Group Answers by	Thursday, July 5, 2018 at 6:00 PM
			Week 10 Discussion Activities - Red and Blue groups finish discussion by	Sunday, July 8, 2018 at 11:55 PM
			Complete your weekly quiz (Quizzes).	Monday, July 9, 2018 at 11:55 PM

	Week 11: Politics, Policy and Governance	United Nations Framework Convention on Climate Change. (2015). The Paris Agreement . (pp. 1-18).	Red Group Answers by	Thursday, July 12, 2018 at 6:00 PM
			Week 11 Discussion Activities - Red and Blue groups finish discussion by	Sunday, July 15, 2018 at 11:55 PM
			Complete your weekly quiz (Quizzes).	Monday, July 16, 2018 at 11:55 PM
	Week 12: Sustainability Transformations: Linking Adaptation and Mitigation in Communities	Chapter 11: Understanding Climate Change: Pathways Forward	Blue Group Answers by	Thursday, July 19, 2018 at 6:00 PM
			Week 12 Discussion Activities - Red and Blue groups finish discussion by	Saturday, July 22, 2018 at 11:55 PM
			Complete your weekly quiz (Quizzes).	Monday, July 23, 2018 at 11:55 PM

			Submit your Module 3 Discussion Summary Assignment	Wednesday, July 25, 2018 at 11:55 PM
			Assignment 2: Emissions and Mitigation at the Community Scale is due.	Wednesday, July 25, 2018 at 11:55 PM

Final Examination Arrangements and Schedule

There is no final exam for this course.

Official Grades and Course Access

Official Grades and Academic Standings are available through [Quest](#).

Your access to this course will continue for the duration of the current term. You will not have access to this course once the next term begins.

Contact Information

Announcements

Your instructor uses the **Announcements** widget on the **Course Home** page during the term to communicate new or changing information regarding due dates, instructor absence, etc., as needed. You are expected to read the announcements on a regular basis.

To ensure you are viewing the complete list of announcements, you may need to click **Show All Announcements**.

Discussions

A **General Discussion** topic* has also been made available to allow students to communicate with peers in the course. Your instructor may drop in at this discussion topic.

Contact Us

Who and Why	Contact Details
<p data-bbox="199 1019 432 1052">Instructor and TA</p> <ul data-bbox="247 1101 747 1263" style="list-style-type: none"><li data-bbox="247 1101 747 1222">• Course-related questions (e.g., course content, deadlines, assignments, etc.)<li data-bbox="247 1227 747 1263">• Questions of a personal nature	<p data-bbox="829 1019 1843 1092">Post your course-related questions to the Ask the Instructor discussion topic*. This allows other students to benefit from your question as well.</p> <p data-bbox="829 1138 1829 1170">Questions of a personal nature can be directed to your instructor or your TA.</p> <p data-bbox="829 1219 1234 1325">Instructor: Stephanie Barr stephanie.barr@uwaterloo.ca Office hours: Contact instructor</p> <p data-bbox="829 1373 1199 1406">TA: [First Name] [Last Name]</p>

	<p>tttt@uwaterloo.ca</p> <p>Your instructor checks email and the Ask the Instructor discussion topic* frequently and will make every effort to reply to your questions within 24–48 hours, Monday to Friday.</p>
<p>Technical Support, Centre for Extended Learning</p> <ul style="list-style-type: none"> • Technical problems with Waterloo LEARN 	<p>learnhelp@uwaterloo.ca</p> <p>Include your full name, WatIAM user ID, student number, and course name and number.</p> <p>Technical support is available during regular business hours, Monday to Friday, 8:30 AM to 4:30 PM (Eastern Time).</p> <p>LEARN Help Student Documentation</p>
<p>Learner Support Services, Centre for Extended Learning</p> <ul style="list-style-type: none"> • General inquiries • WatCards (Student ID Cards) • Examination information 	<p>Student Resources</p> <p>extendedlearning@uwaterloo.ca +1 519-888-4002</p> <p>Include your full name, WatIAM user ID, student number, and course name and number.</p>

*Discussion topics can be accessed by clicking **Connect** and then **Discussions** on the course navigation bar above.

Course Description and Learning Outcomes

Course Description

Climate change is one of the most profound environmental and social issues affecting communities, nations and individuals. This course is an introduction to this global challenge, including its scientific underpinnings, history, potential impacts on natural systems and human societies around the world, and two societal responses: adaptation and greenhouse gas mitigation. Opportunities to develop sustainable resilient communities, as well as Canadian climate change policy responses will be highlighted.

The goal of this course is to provide students of any discipline with the fundamentals of climate change: both biophysical and human dimensions. This course will be delivered entirely online, and will provide students with an opportunity to hone science communication skills, explore sources of scientific uncertainty, political complexities, and equity implications of this global challenge.

Climate change is a pervasive and challenging phenomenon that can be viewed through a multitude of lenses. A scientific lens, for instance, reveals altered ecosystems and climatic tipping points while the lens of ethics raises the question of the right to develop and influence the well-being of others while doing so. By carefully laying the scientific foundations, we will explore creative, positive, nuanced visions of the future that are rooted in scientific understanding of earth systems but also capture (or at least begins a conversation about) core human values, such as equity, compassion, innovation, and connection. A wider variety of actors are increasingly taking action on climate change, or bear some responsibility for doing so, giving us the opportunity to analyze coordinated, effective responses that go beyond international negotiations.

This course is intended for undergraduate students of all backgrounds (arts, social sciences, and sciences) who wish to explore the biophysical and human dimensions of climate change. The course will also help students to hone their abilities to communicate potential solutions to others.

Learning Outcomes

Through a deeply interdisciplinary approach and with an emphasis on fostering effective communication skills, successful students in this course will:

- Demonstrate understanding of key elements of the climate system, and how these elements are being altered by the human emission of greenhouse gases.
- Carefully consider the impacts of climate change on both human and natural systems.
- Articulate the difference between climate change adaptation and mitigation, and understand a portfolio of actions that communities can take to respond to climate change.
- Understand the key issues at play in international climate change negotiations, as well as recent Canadian policy proposals.
- Investigate futures that are fundamentally sustainable, low-carbon, and resilient to climate change impacts.

This online course was developed by Sarah Burch, with instructional design and multimedia development support provided by the Centre for Extended Learning. Further media production was provided by Instructional Technologies and Multimedia Services.

Grade Breakdown

The following table represents the grade breakdown of this course.

Assessments	Weight (%)
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Quizzes (top 10 out of 11)	40%
Discussion Summary Assignment	20%
Assignment 1: Climate Change Impacts and Adaptation at the Community Scale	20%
Assignment 2: Emissions and Mitigation at the Community Scale	20%

About the Course Author and Instructor

Course Instructor — Stephanie Barr



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Stephanie Barr is a PhD candidate in the School of Environment, Resources and Sustainability at the University of Waterloo (Canada) and received a Master of Climate Change from the University of Waterloo. Her research focuses on understanding stakeholder and public perceptions of biodiversity conservation in an era of climate change and examines current climate change adaptation strategies for biodiversity conservation in Canada's protected areas. She has worked for Natural Resources Canada and the Ontario Ministry of Natural Resources and Forestry in climate change related positions.

Course Author — Sarah Burch
Associate Professor and Canada Research Chair



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Sarah Burch, PhD is an assistant professor in the Department of Geography and Environmental Management, University of Waterloo, Canada. Dr. Burch has published widely on transformative responses to climate change at the community scale, and innovative strategies for governing sustainability. She co-teaches a Massive Open Online Course called 'Climate Literacy: Navigating Climate Change Conversations', which reaches thousands of students in over 130 countries.

Dr. Burch received a PhD in resource management and environmental studies from the University of British Columbia, Canada (2009) and held a postdoctoral fellowship at the University of Oxford (2009-2011). She is a co-ordinating lead author in the second Assessment Report on Climate Change in Cities, and North American co-ordinator of the Earth System Governance network of Research Fellows. She was a contributing author to the fourth assessment report of the Intergovernmental Panel on Climate Change (winner of the Nobel Peace Prize in 2007) and was awarded a Banting Fellowship for her work on

sustainability innovation. Her most recent book (2014) is entitled 'Understanding Climate Change: Science, Policy and Practice.'

Materials and Resources

Textbook

Required

1. Burch, S. L., & Harris, S. E. (2014). *Understanding Climate Change: Science, Policy, and Practice*. Toronto: University of Toronto Press, Scholarly Publishing Division.

For textbook ordering information, please contact the [Waterloo Bookstore](#).

For your convenience, you can compile a list of required and optional course materials through [BookLook](#) using your Quest userID and password. If you are having difficulties ordering online and wish to call the Waterloo Bookstore, their phone number is +1 519-888-4673 or toll-free at +1 866-330-7933. Please be aware that textbook orders **CANNOT** be taken over the phone.

Course Reserves

Course Reserves can be accessed using the **Library Resources** widget on the **Course Home** page.

Resources

- [Library services for co-op students on work term and distance education students](#)

Credits and Copyright

Credits

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Copyright Statement

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For further information, please contact the Centre for Extended Learning, University of Waterloo, 200 University Ave. W., Waterloo, ON, Canada, N2L 3G1, extendedlearning@uwaterloo.ca.

University Policies

Submission Times

Please be aware that the University of Waterloo is located in the **Eastern Time Zone** (GMT or UTC-5 during standard time and UTC-4 during daylight saving time) and, as such, the time that your activities and/or assignments are due is based on this zone. If you are outside the Eastern Time Zone and require assistance with converting your time, please try the [Ontario, Canada Time Converter](#).

Accommodation Due to Illness

If your instructor has provided specific procedures for you to follow if you miss assignment due dates, term tests, or a final examination, adhere to those instructions. Otherwise:

Missed Assignments/Tests/Quizzes

Contact the instructor as soon as you realize there will be a problem, and preferably within 48 hours, but no more than 72 hours, have a medical practitioner complete a [Verification of Illness Form](#).

Email a scanned copy of the Verification of Illness Form to your instructor. In your email to the instructor, provide your name, student ID number, and exactly what course activity you missed.

Further information regarding Management of Requests for Accommodation Due to Illness can be found on the [Accommodation due to illness](#) page.

Missed Final Examinations

If this course has a final exam and if you are unable to write a final examination due to illness, seek medical treatment and have a medical practitioner complete a [Verification of Illness Form](#). Email a scanned copy to the Centre for Extended Learning (CEL) at extendedlearning@uwaterloo.ca within 48 hours of your missed exam. Make sure you include your name, student ID number, and the exam(s) missed. You will be **REQUIRED** to hand in the original completed form before you write the make-up examination.

After your completed Verification of Illness Form has been received and processed, you will be emailed your alternate exam date and time. This can take up to 2 business days. If you are within **150 km** of Waterloo you should be prepared to write in Waterloo on the additional CEL [exam dates](#). If you live outside the 150 km radius, CEL will work with you to make suitable arrangements.

Further information about [Examination Accommodation Due to Illness](#) regulations is available in the Undergraduate Calendar.

Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect, and responsibility. **If you have not already completed the online tutorial regarding academic integrity you should do so as soon as possible.** Undergraduate students should see the [Academic Integrity Tutorial](#) and graduate students should see the [Graduate Students and Academic Integrity](#) website.

Proper citations are part of academic integrity. Citations in CEL course materials usually follow CEL style, which is based on APA style. Your course may follow a different style. If you are uncertain which style to use for an assignment, please confirm with your instructor or TA.

For further information on academic integrity, please visit the [Office of Academic Integrity](#).

Turnitin

Turnitin.com: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin® in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.

Discipline

A student is expected to know what constitutes [academic integrity](#) to avoid committing an academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration, should seek guidance from the course instructor, academic advisor, or the undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties, check [Guidelines for the Assessment of Penalties](#).

Appeals

A decision made or penalty imposed under [Policy 70 - Student Petitions and Grievances](#), (other than a petition) or [Policy 71 - Student Discipline](#), may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72 - Student Appeals](#).

Grievance

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#), Section 4. When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

Final Grades

In accordance with [Policy 46 - Information Management](#), Appendix A - Access to and Release of Student Information, the Centre for Extended Learning does not release final examination grades or final course grades to students. Students must go to [Quest](#) to see all final grades. Any grades posted in Waterloo LEARN are unofficial.

AccessAbility Services

[AccessAbility Services](#), located in Needles Hall, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodation to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term and for each course.

Accessibility Statement

The Centre for Extended Learning strives to meet the needs of all our online learners. Our ongoing efforts to become aligned with the [Accessibility for Ontarians with Disabilities Act \(AODA\)](#) are guided by University of Waterloo accessibility [Legislation](#) and policy and the [World Wide Web Consortium's \(W3C\) Web Content Accessibility Guidelines \(WCAG\) 2.0](#). The majority of our online courses are currently delivered via the Desire2Learn Learning Environment. Learn more about [Desire2Learn's Accessibility Standards Compliance](#).

Use of Computing and Network Resources

Please see the [Guidelines on Use of Waterloo Computing and Network Resources](#).

Copyright Information

UWaterloo's Web Pages

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Other Sources

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Wide Web may be reproduced or distributed in any material form or in any medium, without permission from copyright holders or their assignees. To support your course of study, the University of Waterloo has provided hypertext links to relevant websites, resources, and services on the web. These resources must be used in accordance with any registration requirements or conditions which may be specified. You must be aware that in providing such hypertext links, the University of Waterloo has not authorized any acts (including reproduction or distribution) which, if undertaken without permission of copyright owners or their assignees, may be infringement of copyright. Permission for such acts can only be granted by copyright owners or their assignees.

If there are any questions about this notice, please contact the University of Waterloo, Centre for Extended Learning, Waterloo, Ontario, Canada, N2L 3G1 or extendedlearning@uwaterloo.ca.

Territorial Acknowledgement

We acknowledge that we live and work on the traditional territory of the Attawandaron (Neutral), Anishinaabeg, and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, the land promised to the Six Nations that includes ten kilometres on each side of the Grand River.