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**COURSE SYLLABUS**

**Global Environmental Change and Human Response**

**Lecture times: Tuesdays and Thursdays 16:30 to 17:50**

**Lecture location: Cornett Building COR A120**

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**Office Hours:** Wednesdays, 13:30 to 16:00 or by appointment

**Office Location:** DTB B324

**Contact:** [carodenuto@uvic.ca](mailto:carodenuto@uvic.ca)

**COURSE DESCRIPTION AND RATIONALE**

The world's ecosystems are highly dynamic, and the rate of change both affects, and is affected by, the activities of humans. This course will examine large-scale patterns and trends that demonstrate the types of changes occurring in the global environment, and how humans respond to those changes in different regions of the world. This course focuses on the causes of global environmental change, the present and expected impacts on natural and social systems, and response strategies that have been proposed or enacted. Key themes include climate change, agriculture and land use change, global value chains and food systems, and sustainable development.

Particular emphasis will be placed on climate change, and various proposals for adaptation and mitigation. The science and political responses are evolving quickly, so along with the textbook, assigned readings will include scientific reports by organizations such as the Intergovernmental Panel on Climate Change (IPCC), international environmental treaties, and policy documents from governments and non-governmental organizations (NGOs).

This course has been designed with the idea in mind that it will be important – regardless of where you live in the world – that you understand the ecological, social, cultural, and economic changes that will surround you in the coming decades. The course will focus especially on the global nature of environmental issues, and the how the choices of individuals, cities, and countries can have important implications on environmental sustainability and social justice in far-away places. We will look at how global actors are responding to these issues by providing finance, technology, and capacity building.

A bit about myself: I recently joined the Department of Geography as a research professor. My research interests include practical implementation of climate policy, especially in the Global South, where adverse impacts of climate change are often felt the most. Before joining UVic Faculty, I worked as a consultant in over a dozen countries in Africa, South America and the Pacific. In this previous role, I supported developing country governments, donors (e.g. World Bank, German Development Agency), civil society, and the private sector to jointly develop viable solutions to climate change that fit the specific context. I look forward to sharing these experiences with you and am happy to discuss career options both inside and outside academia.

This course does not have any prerequisites besides 2nd year standing and is open to students from all disciplines. Some of you may have chosen this course as an elective for the Human Dimensions of Climate Change (HDCC) minor or certificate. We will have a diversity of backgrounds and students will have different levels of familiarity with key concepts covered in this class. Therefore, I kindly request your patience if you are already familiar with a particular issue. In a similar sense, you may need to spend time doing additional readings or study if you are having difficulty with certain topics.

**REQUIRED TEXT** *(available at UVic Bookstore or online in e-book format; you may also find a used copy in one of the campus bookstores since this book has been used previously for this course)*

Burch, S.L., and Harris, S.E. (2014). *Understanding climate change: science, policy, and practice*. Toronto: University of Toronto Press.

A list of supplemental reading and texts will be posted on CourseSpaces.

### **LEARNING GOAL**

To provide you with the materials, resources, and activities that will allow you to describe and analyze trends in global environmental change and to explain and create strategies to mitigate and/or adapt to these changes.

### **INTENDED LEARNING OUTCOMES**

By the end of this course, you should be able to:

- Identify, examine and analyze key scientific debates about climate change and understand the various actor groups, values, and interests that shape global responses to environmental change
- Explain different ecological, economic, and social impacts of the current trends in global environmental change and demonstrate the relationships among the issues
- Summarize and compare the range of approaches and tools proposed to mitigate and adapt to critical issues in the global environment by various local, provincial, national, and international actors
- Be able to meaningfully engage in debates about global environmental change and the possible responses, and critically assess the credibility of different proposals
- Use academic literature, lecture notes, and materials from class discussions and activities to assess critical global environmental change issues
- Research and develop a proposal to mitigate or adapt to climate change in a country that is aiming to access climate finance for sustainable development
- Gain experience in concise writing and presentation skills through class assignments, allowing you to better communicate scientific information to target audiences such as resource management decision-makers and the public

## GEOGRAPHY DEPARTMENT INFO

- Geography Department website: <http://geog.uvic.ca>
- Undergraduate Advisor: Dr. Phil Wakefield – [geogadvisor@uvic.ca](mailto:geogadvisor@uvic.ca)

## COURSESPACES

CourseSpaces learning management systems (LMS) will serve as the main avenue of communication in this course (<http://coursespaces.uvic.ca>). Please monitor the page on a regular basis for course announcements, readings assignments and lecture handouts. If you are having difficulty logging in or password problems, contact the Computer Help Desk Email: [helpdesk@uvic.ca](mailto:helpdesk@uvic.ca), Tel: 250-721-7687

## POLICY ON LATE ASSIGNMENTS

To ensure fairness towards those of you who have made the effort to hand in assignments on time, I will deduct 15% per day (including weekends and holidays) for assignments that are handed in late. In-class contributions and presentations that are not prepared on time will be given zero and substitutions to later dates are not an option. Exceptions will only be granted for documented medical or compassionate reasons.

## POLICY ON ATTENDANCE

Both you (the student) and I (the instructor) have a responsibility to: come to class, be prepared to discuss the subject area, and create a positive constructive learning environment for others, which includes turning cell phones off (ringers, SMS and email functions can all be distracting) and not using the internet for activities unrelated to the class lectures and discussions during class time. Class will start on time. Out of consideration to others, please do not enter late or leave early. I may distribute assignment information and exam review questions in class, so please attend regularly to make sure you receive this information.

In addition to in-class time, you should expect to plan on committing an average of 4-6 hours per week for readings, assignments, and to track ongoing discussions and announcements on CourseSpaces. Please make sure you complete the required readings before class and come prepared to discuss these readings. I may post key questions to consider while reading. These questions are also good review for the exams.

## ACADEMIC INTEGRITY

It is every student's responsibility to be aware of the university's policies on academic integrity, including policies on **cheating, plagiarism, unauthorized use of an editor, multiple submission, and aiding others to cheat.**

**Policy on Academic Integrity:** <http://web.uvic.ca/calendar/undergrad/info/regulations/academic-integrity.html>

If you have any questions or doubts, talk to me, your course instructor. For more information, see <http://www.uvic.ca/learningandteaching/students/resources/expectations/>.

## ACCESSIBILITY

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a documented disability or health consideration that may require accommodations, please feel free to approach me and/or the Centre for Accessible Learning (CAL as soon as possible <https://www.uvic.ca/services/cal/>).

## POSITIVITY AND SAFETY

The University of Victoria is committed to promoting, providing and protecting a positive and safe

learning and working environment for all its members. To ensure that all class members feel welcomed and equally able to contribute to class discussions, we will all endeavor to be respectful in our language, our examples, and the manner in which we conduct our discussions and group work. If you have any concerns about the climate of the class, please contact me.

### **COURSE EXPERIENCE SURVEY (CES)**

I value your feedback on this course. Towards the end of term, as in all other courses at UVic, you will have the opportunity to complete an anonymous survey regarding your learning experience (CES). The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. The survey is accessed via MyPage and can be done on your laptop, tablet, or mobile device. I will remind you and provide you with more detailed information nearer the time but please be thinking about this important activity during the course.

### **TENTATIVE COURSE SCHEDULE** *(subject to change- see disclaimer)*

<b>DAY</b>	<b>LECTURE TOPIC or ACTIVITY</b>	<b>READINGS, ASSIGNMENTS, and KEY QUESTIONS</b>
Sept. 6	Introduction to course	Review syllabus In-class survey about your current knowledge of climate change (not graded)
Sept. 11	The basics of climate science	Required reading: Textbook Chapter 1 and 2 Optional reading: The United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement. Available here: <a href="https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf">https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf</a>
Sept. 13	The basics of climate science	Required reading: Textbook Chapter 3 Optional reading: <a href="https://www.carbonbrief.org/analysis-how-much-carbon-budget-is-left-to-limit-global-warming-to-1-5c">https://www.carbonbrief.org/analysis-how-much-carbon-budget-is-left-to-limit-global-warming-to-1-5c</a>
Sept. 18	The basics of climate science	Required reading: Textbook Chapter 4 Assignment 1: Appetite for Change?
Sept. 20	Global value chains and food systems	Required reading: Poore, Joseph, and T. Nemecek. "Reducing food's environmental impacts through producers and consumers." <i>Science</i> 360.6392 (2018): 987-992. <i>*Be prepared to discuss this article in class</i>
Sept. 25	Guest speaker	Guest speaker Cora Hallsworth or Jennie Moore to talk about her work on ecological footprints and how these apply to our local area. See more information here: <a href="http://www.oneplanetsaanich.org">www.oneplanetsaanich.org</a>
Sept. 27	The basics of climate science	Required reading: Textbook Chapter 5 Optional reading: Jones, N. 2017. "How the World Passed a Carbon Threshold and Why It Matters" <i>YaleEnvironment360</i> .

		<a href="https://e360.yale.edu/features/how-the-world-passed-a-carbon-threshold-400ppm-and-why-it-matters">https://e360.yale.edu/features/how-the-world-passed-a-carbon-threshold-400ppm-and-why-it-matters</a> <b>DUE: Assignment 1</b>
Oct. 2	<b>EXAM 1</b>	
Oct. 4	Climate mitigation	Required reading: Textbook Chapter 6
Oct. 9	Climate mitigation	Required reading: Seymour, Frances, and Busch, Jonah. 2016. Chapter 2: Tropical Forests in <i>Why Forests? Why Now?</i> . Center for Global Development. Assignment 2: Media Assessment In-class feedback survey (not graded)
Oct. 11	Media and communication	Required reading: Rosling, Hans. Good news at last: the world isn't as horrific as you think. <i>The Guardian</i> . 11 April, 2018. <a href="https://www.theguardian.com/world/commentisfree/2018/apr/11/good-news-at-last-the-world-isnt-as-horrific-as-you-think">https://www.theguardian.com/world/commentisfree/2018/apr/11/good-news-at-last-the-world-isnt-as-horrific-as-you-think</a>
Oct. 16	Climate adaptation	Required reading: Chapter 9
Oct. 18	Climate adaptation	Required reading: Chapter 10 <b>DUE: Assignment 2</b>
Oct. 23	Environmental justice	Required reading: King, Andrew D., and Luke J. Harrington. "The Inequality of Climate Change from 1.5° C to 2° C of Global Warming." <i>Geophysical Research Letters</i> (2018).
Oct. 25	Environmental justice	Required reading: Roberts, David. I'm an environmental journalist, but I never write about overpopulation. Here's why. <i>Vox</i> . 11 July, 2018. <a href="https://www.vox.com/energy-and-environment/2017/9/26/16356524/the-population-question">https://www.vox.com/energy-and-environment/2017/9/26/16356524/the-population-question</a>
Oct. 30	Global climate policy in action	<b>Mock climate negotiations</b> We will be organizing a role playing of Climate Change Negotiations in class. Make sure you come prepared and ready to start on time!
<i>Oct 31<sup>st</sup>– Last day for withdrawing from the first term courses without penalty of failure. Additional University of Victoria important dates can be accessed through the link below.</i> <a href="http://web.uvic.ca/calendar/general/dates.html">http://web.uvic.ca/calendar/general/dates.html</a>		
Nov. 1	Global climate policy in action	Reflect on climate negotiations <i>*be prepared to discuss your experience with the mock climate negotiations in small groups and in plenary</i> Assignment 3: Green Climate Fund Concept Note
Nov. 6	<b>EXAM 2</b>	
Nov. 8		Students use class time to work in groups

Nov. 12	<b>Reading Break - no class</b>	
Nov. 15	Climate finance	Required reading: Cui, Lianbiao, and Yuran Huang. "Exploring the schemes for green climate fund financing: international lessons." <i>World Development</i> 101 (2018): 173-187.
Nov. 20		Poster presentations of GCF Concept Notes
Nov. 22		Poster presentations of GCF Concept Notes
Nov. 27	Sustainable development	Required reading: Winkler, Harald, and Navroz K. Dubash. "Who determines transformational change in development and climate finance?." <i>Climate Policy</i> 16.6 (2016): 783-791.
Nov. 29	Sustainable development	Required reading: Chapter 11 <b>DUE: Assignment 3 individual component</b>
Dec. 4	<b>EXAM 3</b>	

### DISCLAIMER

Please understand that the above schedule, policies, procedures, and assignments in this course are subject to change. This is largely to accommodate the busy schedules of some prominent guest speakers. Any revision to the course syllabus during the semester will be communicated to all students through CourseSpaces.

### GUEST SPEAKERS

One of the functions of the course is to engage students with information and ideas presented by people with experience (often called experts) in a particular area. These people will present in our class, during which there will be time for discussions. Each of the invited speakers will present a specific point of view on a given issue. One of our key expectations is that you begin to analyze information you hear/read/view. The mechanism for doing this is to formulate questions about what you hear/read/view. There will be specific readings that will help to prepare for constructive interaction with guest speakers. Please take notes as the knowledge communicated by the guest speakers may appear on the exams.

## EVALUATION

Students must complete all evaluation components to obtain credit. Failure to complete any evaluation component without permission from the instructor, will result in an 'N' grade, which equals a Grade Point Value of 0.

### **Assignments (40%):**

*Assignment 1: Appetite for Change? Uncovering what's for dinner* (10%)

Date Assigned: Sept. 18

Due Date: Sept. 27 (16:30)

*Assignment 2: Media Assessment* (10%)

Date Assigned: Oct. 9

Due Date: Oct. 18 (16:30)

*Assignment 3: Concept Note for Green Climate Fund* (20%)

This Assignment is in part a group assignment that comprises developing a poster as a group (8%) and writing a Concept Note individually (12%)

Date Assigned: Nov. 1

Due Date for poster: Nov. 20 or 22

Due Date for individual component: Nov. 29 (16:30)

Information on individual assignments will be provided in class and on CourseSpaces.

### **In-class participation (mock climate negotiations) (15%):**

Please note that regular class attendance and respectful engagement with instructors and other students is expected (see policy on attendance below). In addition, there will be a number of in-class activities that aim to build important professional skills. These skills include working together constructively with people of diverse backgrounds, active listening, the ability to critically analyze issues, and most importantly, the ability to articulate that critical analysis to other people.

In-class participation will be evaluated based on the following two activities:

1. Mock climate negotiations (10%): Participation in this exercise is critical to understanding the realities of intergovernmental power dynamics and the struggle to collectively achieve climate targets at the global level. I will be taking attendance, students will be expected to arrive on time and be prepared for the various activities. You will be marked as absent if it is obvious that you have not come prepared by having carefully completed the required readings.
2. Peer review during poster session (5%): Two days are designated for group poster presentations. On the day that you are not presenting your poster, you will be assigned a group poster to evaluate based on the given evaluation rubric.

### **Examinations (45%)**

*Exam 1* October 2 (in lecture period) (15%)

*Exam 2* November 6 (15%)

*Exam 3* December 4 (during last class) (15%)

The exam format allows for regular feedback to ensure that you are grasping important concepts that lay the foundation for understanding subsequent topics. Exam format may include short- and long-answer and multiple-choice questions. The exams will be based on lectures, assigned readings, class discussion, and guest speakers. Since the topics covered are interrelated, exams 2 and 3 may cover content that was introduced since the beginning.

## GRADING SYSTEM

Grade	Grade point value	Grade scale	Description
A+	9	90-100%	<b>Exceptional, outstanding and excellent</b> performance. Normally achieved by a minority of students. These grades indicate a student who is self-initiating, exceeds expectation and has an insightful grasp of the subject matter.
A	8	85-89%	
A-	7	80-84%	
B+	6	77-79%	<b>Very good, good and solid</b> performance. Normally achieved by the largest number of students. These grades indicate a good grasp of the subject matter or excellent grasp in one area balanced with satisfactory grasp in the other area.
B	5	73-76%	
B-	4	70-72%	
C+	3	65-69%	<b>Satisfactory, or minimally satisfactory.</b> These grades indicate a satisfactory performance and knowledge of the subject matter.
C	2	60-64%	
D	1	50-59%	<b>Marginal</b> Performance. A student receiving this grade demonstrated a superficial grasp of the subject matter.
F	0	0-49%	<b>Unsatisfactory</b> performance. Wrote final examination and completed course requirements; no supplemental.
N	0	0-49%	Did not write examination or complete course requirements by the end of term or session; no supplemental.

### NOTE:

A note to remind you to take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone.

Counselling Services - *Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students.* <https://www.uvic.ca/services/counselling/>

Health Services - *University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives.* <http://www.uvic.ca/services/health/>

Centre for Accessible Learning - *The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations* <https://www.uvic.ca/services/cal/>. *The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.*

Elders' Voices - *The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students, staff, faculty and administration in Indigenous ways of knowing and being.* <https://www.uvic.ca/services/indigenous/students/programming/elders/index.php>