GINS 3300: Global and International Study Abroad

# **Assessing Climate Vulnerability**

Dates: May 5 to Jun 17, 2022

Lectures: Mondays and Wednesdays from 2:30-5:30 p.m.

Mode of instruction: Online Blended, with synchronous meetings and asynchronous activities

Instructor: Dr. Camila Florez Bossio

Office hours: Online by appointment

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## I. Course description

Governmental agencies and international organizations increasingly need to understand how their proposed policies, plans, and programs (PPPs) affect the vulnerability of local communities to climate change and how climate change threats may alter the desired outcomes of their interventions. In this context, assessing the vulnerability to climate change is a prerequisite for developing PPPs that promote resilient development pathways. This course will examine different impact assessment (IA) methodologies and vulnerability assessment approaches, particularly learning from country assessments submitted to the United Nations Framework Convention on Climate Change. Students will prepare a vulnerability assessment report about a Global South country economic sector (e.g., agriculture, energy, housing). In conducting the vulnerability assessment, students will develop skills in IA (e.g., employing analytical tools to identify potential interventions' effects) and research (e.g., synthesizing scientific information). Students will also work on their communication skills by tailoring the presentation of their findings to decision-makers.

## Instructional Method

This course will include lectures, group exercises, trainings, presentations, and an individual project. Students are expected to follow the asynchronous lectures and read the weekly materials, which will guide them to develop their final project. Attendance to the synchronous online meetings is mandatory (these are indicated in the schedule below). During these meetings, the class will start with a lecture, followed up by in-class exercises. The results of the exercises shall be sent to the instructor by the end of the class via e-mail. The exercises will enhance students' comprehension of the class theme and inform students' participation grades.

## II. Learning Outcomes

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

- 1) Understand the foundations of climate vulnerability assessment through the UNFCCC.
- 2) Synthesize and integrate climate, social, and economic data.
- 3) Analyze gender-based vulnerabilities in a changing climate.

- 4) Develop and carry out a vulnerability assessment of an economic sector in a Global South country, using impact assessment methodologies.
- 5) Communicate research findings to the international climate policy community.
- 6) Discuss the strengths and weaknesses of vulnerability assessments and critically evaluate an assessment report.

## III. Course Readings:

Adger, W. N. (2006). Vulnerability. Global Environmental Change, 16(3), 268-281.

Cook Islands (2019). Third National Communication to the United Nations Framework Convention on Climate Change. https://unfccc.int/sites/default/files/resource/TNC%20FINAL.%20online.pdf

Eastin, J. (2018). Climate change and gender equality in developing states. *World Development*, 107, 289-305. https://doi.org/10.1016/j.worlddev.2018.02.021

IPCC (2021). Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [MassonDelmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\_AR6\_WGI\_SPM.pdf

Germanwatch (2021). Global Climate Risk Index 2021. Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2019 and 2000-2019.

 $\underline{https://reliefweb.int/sites/reliefweb.int/files/resources/Global\%20Climate\%20Risk\%20Index\%202021\_1\_0.pdf}$ 

Ghana (2021). Adaptation Communication to the United Nations Framework Convention on Climate Change.https://unfccc.int/sites/default/files/resource/Ghana AdCom%20to%20the%20UNFCCC November%20202 1 Final%20with%20foreword.pdf

Hammil et al. (2013) *Comparative analysis of climate change vulnerability assessments: Lessons from Tunisia and Indonesia*, GIZ. <a href="https://www.weadapt.org/sites/weadapt.org/files/legacy-new/knowledge-base/files/1276/5239ad3a3b71ecomperative-analysis-of-climate-change-vulnerability-assessments-giz.pdf">https://www.weadapt.org/sites/weadapt.org/files/legacy-new/knowledge-base/files/1276/5239ad3a3b71ecomperative-analysis-of-climate-change-vulnerability-assessments-giz.pdf</a>

Malaysia (2022). *Nature-based climate adaptation programme for the urban areas of Penang island,* Project Document to the Adaptation Fund. <a href="https://www.adaptation-fund.org/projects-document-view/?URL=en/307601634834686868/14501-Malaysia-PNBCAP-proposal-29092021-clean.pdf">https://www.adaptation-fund.org/projects-document-view/?URL=en/307601634834686868/14501-Malaysia-PNBCAP-proposal-29092021-clean.pdf</a>

Pramova, E. Chazarin, Locatelli, Hoppe (2013). *Climate Change Impact Chains in Coastal Areas* (ICCA): Final study report. Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH; CIFOR. http://hal.cirad.fr/cirad-01104468/document

Singh, C., Ford, J., Ley, D. et al., (2020). Assessing the feasibility of adaptation options: methodological advancements and directions for climate adaptation research and practice. *Climatic Change*, 162, 255–277. <a href="https://doi.org/10.1007/s10584-020-02762-x">https://doi.org/10.1007/s10584-020-02762-x</a>

UNDP (2017). Social Vulnerability Assessment Tools for Climate Change and DRR Programming. https://www.adaptation-undp.org/sites/default/files/resources/social\_vulnerability05102017\_0.pdf

USAID (2016). *Climate Vulnerability Assessment, an annex to the USAID climate-resilient development framework.* https://pdf.usaid.gov/pdf\_docs/PA00KZ84.pdf

# IV. Schedule:

Week	Dates	Synchronous Meetings	Description	Assignments and/or Readings Due
1	May 9	*	Course overview and introduction	None
	May 11		Climate Change – Risks & Vulnerability	Adger, 2006 IPCC, 2021
2	May 16		Impact, Vulnerability, & Adaptation Assessments	Hammil et al., 2013 Ghana's Adaptation Communication, 2021 – Chapter 1 & 2
	May 18		Vulnerability & Gender	Eastin, 2018  Training: <a href="https://women-gender-equality.canada.ca/gbaplus-course-cours-acsplus/eng/mod99/mod99">https://women-gender-equality.canada.ca/gbaplus-course-cours-acsplus/eng/mod99/mod99</a> 01 02.html
3	May 23		Scoping and Baseline Assessment	USAID, 2016  Deadline to select Country & Sector for Vulnerability  Assessment.
	May 25		Using databases	Training: https://www.globalhealthlearning.org/course/demographic- and-health-surveys-data-use  Get familiarized with the World Development Indicators: https://databank.worldbank.org/source/world-development- indicators  And the Country Climate and Development Database: https://databank.worldbank.org/source/country-climate-and- development-report-(ccdr)
4	May 30	*	Developing Impact Chains	Pramova, 2015
	June 1	*	Developing a Vulnerability Index	UNDP, 2017 Germanwatch, 2021
5	June 6		Identifying Adaptation Options	Singh et al., 2020 Malaysia's Adaptation Fund Project Document, 2022
	June 9		Drafting a Vulnerability Report	Cook Islands' Third National Communication, 2019 – Chapter 2

6	June 13	*	Final Presentations	None
	June 15	*	Final Presentations	None

Assessment Report due on June 19 at 6PM

## V. Evaluation

Evaluation will be based on participation, weekly journal entries about the assigned readings, trainings, a vulnerability assessment report, in which you will use the impact assessment techniques to a Global South economic sector; and a final presentation of your project.

Name of Assignment	% of final grade
Participation – Attendance, engagement, & in-class exercises	15%
Journal	20%
Training	15%
Presentation	15%
Vulnerability Assessment Report	35%

- 1) Participation (15% of total marks): Your participation throughout the semester will be graded based on your attendance, your active engagement in the class, and in-class group exercises.
- 2) Journal (20% of total marks): Your reading journal is an opportunity for you to demonstrate your understanding of the topics covered in the required readings. The journal will be completed on cuLearn using the forum. The entries must be submitted by 11AM each Monday & Wednesday. The journal entries should include succinct reviews of each required reading, synthesizing key ideas, concepts and examples presented [1/2 of your entry], and your reflections, comments, opinions about the content of the readings [1/2 of your entry]. For each journal entry, you can write 500 words max.
- 3) Training (15% of total marks): You will be asked to undertake two trainings that complement your skills development. The trainings are free and online. You are required to submit the completion certificate on cuLearn on the week that the training is indicated in the schedule above.
- **4) Presentation (15% of total marks):** Each student will present their vulnerability assessment report (5 min). The presentation will be followed by Q&A (2min). The final report document shall demonstrate that feedback received during the presentations has been incorporated.
- 5) Assessment report (35% of total marks): You will be asked to develop an assessment report of one country sector. Researching and developing the report will allow you to apply what you learn in the course to one Global South country economic sector. Detailed information about the report will be distributed in class.

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Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

The system of grades used, with corresponding grade points is the following:

Percentage	Letter Grade	12-point scale	Percentage	Letter Grade	12-point scale
90-100	A+	12	67-69	C+	6
85-89	А	11	63-66	С	5
80-84	A-	10	60-62	C-	4
77-79	B+	9	57-59	D+	3
73-76	В	8	53-56	D	2
70-72	B-	7	50-52	D-	1

# Policy on late submissions

A 10% deduction per day will be applied to late assignments. Requests for deadline extensions must be made at least 24 hours before the deadline. I will not grant any extensions that are made less than a day before the deadline. For reasons related to illness, substantiation from a medical professional will be required.

## VI. Plagiarism

The University Senate defines plagiarism as "presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own." This can include:

- reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source;
- submitting a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings;
- failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks;
- handing in "substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs.

Plagiarism is a serious offence which cannot be resolved directly with the course's instructor. The Associate Deans of the Faculty conduct a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They may include a mark of zero for the plagiarized work or a final grade of "F" for the course.

## VII. Academic Accommodation

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

**Pregnancy obligation**: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For accommodation regarding a formally-scheduled final exam, you must complete the Pregnancy Accommodation Form (click here).

**Religious obligation**: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details click here.

Academic Accommodations for Students with Disabilities: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in

mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).

## Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: https://carleton.ca/equity/sexual-assault-support-services

# **Accommodation for Student Activities**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation will be provided to students who compete or perform at the national or international level. Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <a href="https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf">https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf</a>

## VIII. Communications

Carleton E-mail Accounts: All email communication to students from BGInS will be via official Carleton university email accounts and/or cuLearn. As important course and University information is distributed this way, it is the student's responsibility to monitor their Carleton and cuLearn accounts.

Official Course Outline: The course outline posted to the BGInS website is the official course outline.