

Course Syllabus: Climate Policy (DOPP5663)

Lecturer: Florian Weiler (weilerf@ceu.edu)

Office: room B414

Classroom: TBA

Course time: Monday 1.30 – 3.10 pm

Course summary

Climate change is the most challenging international policy problem that exists today. The course will primarily focus on two questions. First, what, in an ideal world, should be done about climate change? Second, what, in the world that exists, can be done about it? The first question requires an understanding of the science, impacts, economics, and ethics of climate change policy. The second question requires an understanding of the politics, international law, and international relations aspects of climate change policy. The course will not provide firm answers to these questions. It aims instead to provide a framework and the knowledge required for students to come to their own conclusions. Indeed, every student taking this course is required to answer these questions, and to defend their conclusions rigorously.

This is a complex topic. It is important to understand it from many perspectives. It is also important to be able to synthesize these different perspectives for the purpose of answering the key questions posed above. This requires a substantial amount of effort. Students are therefore asked to put in a substantial amount of work and effort to fulfill the requirements for the course. Reading the assigned text is crucial in this journey, both for a fruitful discussion in class, but also to enable students to answer the two questions posed for the first two assignments.

The first question, i.e. what should be done about climate change, will be answered based on the first part of the course on scientific knowledge, mitigation options, and economic concepts. The second question on what we realistically be done needs to be answered after considering why climate change is such a difficult policy problem, and how countries try to solve this problem via international negotiations. We conclude the course by looking at national climate policy and how individuals deal with the climate problem. In the last class students then present a poster on a climate-related topic of their choice.

Learning Outcomes:

On successful completion of the course students will:

- be able to demonstrate understanding of current issues and key policy instruments in climate policy;
- be able to develop a critical understanding of core concepts and approaches in the field of climate policy, including conceptual and empirical limitations;
- have acquired the necessary skills for engaging in team work and discussion when analyzing climate policy and politics;
- be able to apply complexity analytical skills to answer complex question;
- learn how to generate a poster presentation summarizing the core concepts and finding of a climate-related topic of their choice.

Course Texts:

All course texts are available on Moodle. The book *Five Times Faster* by Simon Sharpe provides a good overview of climate science, economics and politics. Parts of the book are assigned as mandatory reading throughout the course. CEU provides access to the e-book via the library, you either need to be on campus to access it, or to connect to the library via VPN.

Sharpe, S. (2023). *Five Times Faster: Rethinking the Science, Economics, and Diplomacy of Climate Change*. Cambridge: Cambridge University Press. Available as an e-book via the CEU library at <https://www.cambridge.org/core/books/five-times-faster/F10C95E61C3AB39EBC3BC7C8F4B1853F>

Course organization

The course will run weekly on Monday at 1.30 – 3.10 pm.

Room: TBD/online

Preparation – You are expected to check in regularly to the Moodle site for the course to check on any up-dates or additional readings. In other words, this is an evolving course document and changes in the form of additions are to be expected.

Absences – Please notify Anton in advance if you will be absent from class. Missed classes must be made up with an assignment, unless the absence occurred for medical reasons (sickness notification needs to be accompanied by a doctor's note). The make-up assignment for missed classes is a 500-word summary of the seminar readings to be sent within a week of the missed class. One class absence is allowed without having to write a make-up assignment!

Adjustments – If you require any support or adjustments due to a disability to help you participate in class (e.g. handouts printed in advance, larger text, extra time for reading, scheduled absences) you can chat with Florian. You can also meet with the CEU Disability Services Officer Natalia Nyikes (nyikesn@ceu.edu) or consult the CEU Student Disability Policy (<https://documents.ceu.edu/node/508>).

Course Assessment:

Participation:	10%
First short paper:	30%
Second short paper:	30%
Final poster	30%

Participation: 10%

You are expected to come prepared for the seminar discussion by reading in advance the required texts. Seminars will be a mix of, lectures, group work, and class discussion. All these elements are based on the assigned class readings. Thus, reading and coming prepared to class is the foundation of the course, and understanding the key concepts is necessary for a fruitful class discussion. You are expected to participate by joining the conversation, asking questions and engaging in critique of the readings.

There are a host of readings listed for each class, please read at least 3 on them per week, and also try to skim the others. While reading, you are encouraged to develop questions for discussion.

Mobile phones should be out of sight/turned off, and laptops closed.

Short class papers: 30% each

Two short papers are due during term time, the first at the beginning of week 5, the second at the beginning of week 9. The papers must not exceed 1,000 words, excluding references and appendices.

The idea of the first short paper is to address the question what should, in the authors view, be done about climate change. Students are not asked here to give a definitive answer, but to tackle this question based on what they have learned so far and by, using the literature as best as they can, making a compelling argument. This includes making suggestions on, amongst others, issues such as:

- which emissions pathways to take (what does science say? Which mitigation options are available?)
- which emissions budget should we target?
- how can these targets be reached? (countries, sectors, (economic) mechanisms)

The second short paper is similar but this time students are asked to assess what realistically can be done to address climate change, given the constraints that make climate policy so difficult. Again, the expectation is not that students provide an answer to a problem that (obvious) has not been solved yet, but that they demonstrate that they understand why climate policy is such a difficult policy field, and that they have started to think about potential solutions. Potential topics to address here are:

- why is the climate problem so difficult to address and how can international negotiations help or hinder to solve this issue?
- how should a future climate treaty ideally be designed, and why?
- who should contribute how much, and why?
- how to ensure fairness, while also ensuring enough countries participate in a deal?

Posters: 30%

The last component of the final grade is a poster, which students have to prepare for the final class in week 12 and present to other students. For the poster students can choose a climate-related policy topic of their choosing. They then have to summarize the most important theoretical ideas and empirical findings related to their chosen topic on the posters in a comprehensible and compelling way.

Grading

Grading follows the 100 point system (see table below), from which the letter grades will be derived. Late submission will earn a deduction of 2 points per day. For instance, if the essay is graded at 90, but the essay was submitted two days late, the final score will be 86, and thus the letter grade will be a B+.

Grade	Points (0-100 scale)
A	100-96
A-	95-88
B+	87-80
B	79-71
B-	70-63
C+	62-58

Course schedule

1. Introduction and overview (8th January)

The aim of the first session is to introduce the course and to think about climate policy in general. We will have an initial discussion of climate change and climate policy, but also go in some detail over the course assignments and course organization.

Seminar Reading:

Sharpe, S. (2023). In Five Times Faster: Rethinking the Science, Economics, and Diplomacy of Climate Change. Cambridge: Cambridge University Press. Chapter 1 – Introduction, p. 1-6.

2. Science of climate change (15th January)

In this class we get an overview of the science of climate change. We'll look at some basic trends and the theory behind the greenhouse effect, but also discuss the uncertainty related to future projections of climatic changes. Climate tipping elements and their relevance will also be covered. In addition to the Sharpe book, which explains the main points of climate science quite well and should be read by all, there is one (quite long) reading for this week, which is the official IPCC Working Group 1 report (the technical summary). Please try to at least skim the entire document and read specific parts of interest to you more carefully!

Seminar Reading:

Sharpe, S. (2023). *Five Times Faster: Rethinking the Science, Economics, and Diplomacy of Climate Change*. Cambridge: Cambridge University Press. Chapters 2 to 5, p. 9-58.

IPCC (2021): *Climate Change 2021: The Physical Science Basis*. Read the technical summary of the Working Group 1 report, available at https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_TS.pdf

Armstrong McKay, D. I., Staal, A., Abrams, J. F., Winkelmann, R., Sakschewski, B., Loriani, S., ... & Lenton, T. M. (2022). Exceeding 1.5 C global warming could trigger multiple climate tipping points. *Science*, 377(6611).

3. Mitigation options (22nd January)

Based on what we learned in the previous week about climate science, during this class we will discuss mitigation options humanity could take to stay within save planetary boundaries of global warming (as set out in the Paris Agreement). We will look at present and past emission figures and ask ourself who should contribute and how much (carbon budget). We will also introduce the concept of the environmental Kuznets curve and discuss whether economic growth is possible in a decarbonizing world. Again, one assigned reading this week is the technical summary of the IPCC report, this time of Working Group 3. This is again quite long, please try to skim it.

Seminar Reading:

Sharpe, S. (2023). *Five Times Faster: Rethinking the Science, Economics, and Diplomacy of Climate Change*. Cambridge: Cambridge University Press. Chapters 6 to 8, p. 59-80.

IPCC (2021): *Climate Change 2022: Mitigation of Climate Change*. Read the technical summary of the Working Group 3 report, available at https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_TechnicalSummary.pdf

Dasgupta, S., Laplante, B., Wang, H., & Wheeler, D. (2002). Confronting the environmental Kuznets curve. *Journal of economic perspectives*, 16(1), 147-168.

Höhne, N., den Elzen, M., Rogelj, J., Metz, B., Fransen, T., Kuramochi, T., ... & Dubash, N. K. (2020). Emissions: world has four times the work or one-third of the time. *Nature*, 579(7797), 25-28.

Lamboll, R. D., Nicholls, Z. R., Smith, C. J., Kikstra, J. S., Byers, E., & Rogelj, J. (2023). Assessing the size and uncertainty of remaining carbon budgets. *Nature Climate Change*, 1-8. (This is quite technical, try to understand the main take away message!)

4. Economics of climate change (29th January)

Based on the carbon budgets discussion from the previous week, in this class we will discuss what economists tell us how we could regulate emissions in order to stay within these limits. We will discuss externalities and ways to regulate them (carbon pricing mechanisms). We will also introduce the social discount rate and ask ourselves how high it should be.

Seminar Readings:

Arrow, K., Cropper, M., Gollier, C., Groom, B., Heal, G., Newell, R., ... & Weitzman, M. (2013). Determining benefits and costs for future generations. *Science*, 341(6144), 349-350.

Aldy, J. E., & Stavins, R. N. (2012). The promise and problems of pricing carbon: Theory and experience. *The Journal of Environment & Development*, 21(2), 152-180.

Drupp, M. A., Freeman, M. C., Groom, B., & Nesje, F. (2018). Discounting disentangled. *American Economic Journal: Economic Policy*, 10(4), 109-134.

Sharpe, S. (2023). *Five Times Faster: Rethinking the Science, Economics, and Diplomacy of Climate Change*. Cambridge: Cambridge University Press. Chapters 9 to 12, p. 81-113.

Bryant, G. (2019). Conceptualising Carbon. In *Carbon Markets in a Climate-Changing Capitalism* (pp. 18-42). Cambridge: Cambridge University Press.

Rennert, K., Prest, B. C., Pizer, W. A., Newell, R. G., Anthoff, D., Kingdon, C., ... & Erickson, F. (2022). The social cost of carbon: advances in long-term probabilistic projections of population, GDP, emissions, and discount rates. *Brookings Papers on Economic Activity*, 2021(2), 223-305.

5. Why is it so difficult to combat climate change? (5th February)

We know what to do (carbon budgets) and also have an idea how to do it (economics), but it still seems to be very difficult for humanity to stay within the safe planetary boundaries of climate change. In this class we discuss the reasons for this and cover topics such as the tragedy of the commons, collective action problems, the prisoner's dilemma, but also Ostrom's ideas how to overcome these obstacles. This week, the ideas (and readings) we cover are rather old, but they are still essential to understand the issues climate policy has to overcome to tackle global warming.

Seminar Readings:

Hardin, G. (1968). The tragedy of the commons. *Science*, 162(3859), 1243-1248.

Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge university press. Chapters 1 and 2.

Olson, M. (1965). *The logic of collective action*. Harvard University Press. Chapters 1 and 2.

Sharpe, S. (2023). *Five Times Faster: Rethinking the Science, Economics, and Diplomacy of Climate Change*. Cambridge: Cambridge University Press. Chapters 13 to 17, p. 114-184.

6. Negotiation theory and the UNFCCC (12th February)

Now that we know the problems with fighting climate change, we can start to address ways to (slowly?) overcoming the tragedy of the commons. We start by extending the prisoner's dilemma (multiple parties, multiple games) and then combine this idea with negotiation theory and Putnam's two-level games. We then look at a couple of milestones reached in these multilateral, two-level, repeated climate negotiations.

Seminar Reading:

Sharpe, S. (2023). *Five Times Faster: Rethinking the Science, Economics, and Diplomacy of Climate Change*. Cambridge: Cambridge University Press. Chapters 18 to 19, p. 185-213.

Putnam, R. D. (1988). Diplomacy and domestic politics: The logic of two-level games. *International Organization*, 42(3), 427–460.

Bailer, S., & Weiler, F. (2015). A political economy of positions in climate change negotiations: Economic, structural, domestic, and strategic explanations. *The Review of International Organizations*, 10(1), 43-66.

Kuyper, J., Schroeder, H., & Linnér, B. O. (2018). The Evolution of the UNFCCC. *Annual Review of Environment and Resources*, 43, 343-368.

7. Treaty design (19th February)

Climate change mitigation is a collective action problem. It requires a treaty approach. But how should such a treaty be designed? Crucial issues include: participation, compliance, and the depth of cooperation. Based on these concepts we compare various environmental treaties (Kyoto Protocol, Montreal Protocol, Paris Agreement).

Seminar Reading:

Barret, S. (1998). On the theory and diplomacy of environmental treaty-making. *Environmental and Resource Economics*, 11, 317-333.

Victor, D. G. (2006). Toward effective international cooperation on climate change: Numbers, interests and institutions. *Global environmental politics*, 6(3), 90-103.

Barrett, S. (2014). Why have climate negotiations proved so disappointing. *Sustainable Humanity, Sustainable Nature: Our Responsibility*. Pontifical Academy of Sciences, Vatican City, 261-276.

Sharpe, S. (2023). *Five Times Faster: Rethinking the Science, Economics, and Diplomacy of Climate Change*. Cambridge: Cambridge University Press. Chapters 20 to 21, p. 213-235.

Snidal, D. (1985). The limits of hegemonic stability theory. *International organization*, 39(4), 579-614. (skim, read section 3 and try to understand the idea of k groups)

8. Negotiating climate change (26th February)

During this week we will discuss important negotiation issues such as negotiation strategies, negotiations power, issue salience, climate coalitions, negotiation delegations, and negotiation success. **Important note:** there will be no presentation during this class, but different negotiation topics will be assigned to small groups, which they have to discuss during class, followed by a short presentation.

Seminar Reading:

Falzon, D. (2023). The ideal delegation: How institutional privilege silences “developing” nations in the UN climate negotiations. *Social Problems*, 70(1), 185-202.

Klöck, C., Castro, P., Weiler, F., & Blaxekjær, L. Ø. (Eds.). (2020). *Coalitions in the climate change negotiations*. Routledge. Chapters 1 to 3.

Betzold, C. (2010). ‘Borrowing’ power to influence international negotiations: AOSIS in the climate change regime, 1990–1997. *Politics*, 30(3), 131-148.

Bailer, S. (2012). Strategy in the climate change negotiations: do democracies negotiate differently?. *Climate Policy*, 12(5), 534-551.

Weiler, F. (2012). Determinants of bargaining success in the climate change negotiations. *Climate Policy*, 12(5), 552-574.

9. Comparing national climate policies (4th March)

By now we should have a good understanding of the problems of climate policy-making, and how the international negotiations could help to overcome these obstacles. Now we delve into national policies and ask ourselves which countries are more (or less) ambitious based on country differences.

Seminar Reading:

Pauw, W. P., Castro, P., Pickering, J., & Bhasin, S. (2020). Conditional nationally determined contributions in the Paris Agreement: foothold for equity or Achilles heel?. *Climate policy*, 20(4), 468-484.

Lachapelle, E., & Paterson, M. (2013). Drivers of national climate policy. *Climate policy*, 13(5), 547-571.

Bernauer, T., & Böhmelt, T. (2013). National climate policies in international comparison: the climate change cooperation index. *Environmental Science & Policy*, 25, 196-206.

Tjernström, E., & Tietenberg, T. (2008). Do differences in attitudes explain differences in national climate change policies?. *Ecological economics*, 65(2), 315-324.

Sharpe, S. (2023). *Five Times Faster: Rethinking the Science, Economics, and Diplomacy of Climate Change*. Cambridge: Cambridge University Press. Chapters 22 to 24, p. 236-271.

10. Climate finance (11th March)

During this week we look at climate finance, specifically how much finance is available and how much would be needed. We also discern national from international climate finance, and analyse how much of the latter was promised to developing nations, how much has actually been delivered, and how this funding is allocated.

Seminar Reading:

Buchner, B., Naran, B., Padmanabhi, R., Stout, S., Strinati, C., Wignarajah, D., Miao, G., Connolly, J. & Marini, N. (2023). Global Landscape of Climate Finance 2023. Climate Policy Initiative.

Bhandary, R. R., Gallagher, K. S., & Zhang, F. (2021). Climate finance policy in practice: A review of the evidence. *Climate Policy*, 21(4), 529-545.

Weikmans, R., & Roberts, J. T. (2019). The international climate finance accounting muddle: is there hope on the horizon?. *Climate and Development*, 11(2), 97-111.

Weiler, F., & Klöck, C. (2021). Donor interactions in the allocation of adaptation aid: A network analysis. *Earth System Governance*, 7, 100099.

Betzold, C., & Weiler, F. (2018). Development aid and adaptation to climate change in developing countries. Springer. Chapters 1 to 2.

11. The individual level (18th March)

We have discussed climate policy and problems with finding solutions to global warming on the national level throughout the course. During this class we ask the question to what degree individuals matter for finding solutions. Clearly the prisoner's dilemma also applied at this micro level, but what do we know about which individuals are most likely to behave in a climate-friendly way? And how does that help in tackling the climate crisis?

Seminar Reading:

Peisker, J. (2023). Context matters: The drivers of environmental concern in European regions. *Global Environmental Change*, 79, 102636.

Mannoni, E. (2023). There's many a slip 'twixt the cup and the lip. Unpacking and investigating the gap between environmental concern and pro-environmental behavior. Conference paper.

Gillingham, K., Rapson, D., & Wagner, G. (2016). The rebound effect and energy efficiency policy. *Review of environmental economics and policy*.

12. Poster Presentation (25th March)