

PLAN DOCENTE

Economía política del cambio climático

Máster en
Sostenibilidad
Curso 2025-2026

FICHA IDENTIFICATIVA

DATOS DE LA ASIGNATURA

CÓDIGO	416544
NOMBRE	Economía política del cambio climático
CARÁCTER	Obligatoria
MODALIDAD	Presencial
PERÍODO	17 de marzo 2026 – 17 de abril de 2026
HORARIO	Martes y Jueves 16h – 18h, Viernes 15h – 17h
IDIOMA	Inglés y español.
CRÉDITOS ECTS	3.0

COORDINACIÓN

Mariateresa Silvi (CEI International Affairs; Ghent University, Department of Economics)

PROFESORADO

Mariateresa Silvi (CEI International Affairs; Ghent University, Department of Economics)

Emilio Padilla Rosa (Autonomous University of Barcelona)

Jordi Teixidó (University of Barcelona, School of Economics)

OBJETIVOS DEL CURSO

Climate change has economic and distributive consequences. This course uses the elements of economic analysis to study the economical and socio-political challenges represented by climate change. The course offers a theoretical and practical background on climate mitigation and adaptation policies, to help the students understand the main trade-offs inherent to the policymaking of climate change.

COMPETENCIAS

Students will acquire an understanding of:

1. the relationship between economic activity and climate change;
2. the array of climate mitigation economic policy instruments available to policymakers; and
3. examples of the application of climate policy instruments in different parts of the world.

These topics will be explored by applying an equality lens throughout the course, to give students an appreciation of the distributional implications of climate change and climate change policies.

PROGRAMA Y PROGRAMACIÓN

The course consists of twelve 2-hour sessions. Each session will focus on a specific issue related to the fundamental aspects of climate change.

	TÍTULO Y RECURSOS DE LA SESIÓN	FECHA Y HORA
WEEK 1: PROBLEM STATEMENT		
1	Introduction to the course. Problem Statement: Economic activity and climate change (I) <i>Profesor/a:</i> M. Silvi <i>Mandatory supporting material:</i> - Resources for the Future. 2025. The social cost of carbon 101. Retrieved from https://www.rff.org/publications/explainers/social-cost-carbon-101/ - European University Institute. 2018. "Market equilibrium with externalities Fabien Roques." YouTube video, length 05:05. https://www.youtube.com/watch?v=ux0v8Ls_RkQ <i>Optional supporting material:</i> - Nordhaus, W. 2019. "Climate Change: The Ultimate Challenge for Economics" American Economic Review 109:1991–2014. https://www.nobelprize.org/uploads/2018/10/nordhaus-lecture.pdf - Smith, N. 2021. "Why has climate economics failed us?" Noahpinion Blog. April 13. https://www.noahpinion.blog/p/why-has-climate-economics-failed - Steffen, W., Broadgate, W., Deutsch, L., Gaffney, O., & Ludwig, C. (2015). The trajectory of the Anthropocene: The Great Acceleration. The Anthropocene Review, 2(1), 81-98. Retrieval at: https://www.bpb.de/system/files/dokument_pdf/Steffen2015ThetrajectoryoftheAnthropoceneTheGreatAcceleration.pdf	March 17th, TUE 16h –18h

2	Problem Statement: Economic activity and climate change (II) <i>Profesor/a: M. Silvi</i> <i>Mandatory material:</i> - Stern, D. I. 2014. "The Environmental Kuznets Curve: A Primer." Working Paper, Centre for Climate & Energy Policy, Crawford School of Public Policy, The Australian National University. http://www.stemdavidi.com/Publications/EKC.pdf - O'Neill. 2018.a. "What Is Ecological Economics?." YouTube video, length 14:47. https://www.youtube.com/watch?v=ux0v8Ls_RkQ <i>Optional material:</i> - Haberl, H., et al. 2020. A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, Part II: Synthesising the insights. Environmental Research Letters, 15(6), 065003. https://doi.org/10.1088/1748-9326/ab842a - O'Neill. 2018.b. "The Laws of Thermodynamics and the Economy" YouTube video, length 07:36. https://www.youtube.com/watch?v=h6Clz8DQvIk - Actuaries Institute. 2020. "The Kaya Identity." http://www.actuaries.org.uk/system/files/field/document/Kaya%20Identity_FINAL%2014052020.pdf	March 19st, THU 16h–18h
3	Problem Statement: Measures of sustainability and alternatives to GDP <i>Profesor/a: M. Silvi</i> <i>Mandatory material:</i> - Material to be shared before class.	March 20th, FRI 15h–17h
WEEK 2: SOLUTIONS, CLIMATE POLICY INSTRUMENTS		
4	Evaluation activity 1: test on the contents of the 1st week. Overview of climate mitigation policy instruments <i>Profesor/a: M. Silvi</i> <i>Mandatory material:</i> - Goulder, L. H. & Parry, I. W. H. 2008. "Instrument Choice in Environmental Policy." Review of Environmental Economics and Policy 2(2): 152–174. DOI:10.1093/reep/ren005 - Hannah Ritchie. 2024. "I Thought Most of Us Were Going to Die From the Climate Crisis. I Was Wrong." The Guardian. 2 Jan. https://www.theguardian.com/environment/2024/jan/02/hannah-ritchie-not-the-end-of-the-world-extract-climate-crisis <i>Optional material:</i> - Dechezleprêtre, A., Fabre, A., Kruse, T., Planterose, B., Sanchez Chico, A. & Stantcheva, S. 2022. "Fighting Climate Change: International Attitudes Toward Climate Policies." OECD Economics Department Working Papers No. 1714, OECD Publishing, Paris. https://doi.org/10.1787/3406f29a-en	March 24th, TUE 16h–18h

5	Policy instruments: carbon pricing instruments <i>Profesor/a:</i> E. Padilla <i>Mandatory material:</i> - Baranzini, A., J. C.J.M. van den Bergh, S. Carattini, R. B. Howarth, E. Padilla, J. Roca. 2017. "Carbon Pricing in Climate Policy: Seven Reasons, Complementary Instruments, and Political Economy Considerations." Wiley Interdisciplinary Reviews: Climate Change 8 (4). https://doi.org/10.1002/wcc.462. - van den Bergh, J. C.J.M., A. Angelsen, A. Baranzini, W. J.W. Botzen, S. Carattini, S. Drews, T. Dunlop, et al. 2020. "A Dual-Track Transition to Global Carbon Pricing." Climate Policy 0 (0): 1–13. https://doi.org/10.1080/14693062.2020.1797618.	March 26th THU 16h–18h
6	Policy instruments: global carbon pricing <i>Profesor/a:</i> E. Padilla <i>Mandatory material:</i> - Same as session above.	March 27th FRI 15h–17h
WEEK 3: SOLUTIONS, CLIMATE POLICY INSTRUMENTS		
7	Policy instruments: voluntary approaches, information-based policies and nudges <i>Profesor/a:</i> M. Silvi <i>Mandatory material:</i> - Silvi, Mariateresa, (2024). "Ch. 15 Behavioral economics and climate policies" in the Edward Elgar Encyclopedia of Climate Policy. Edward Elgar Publishing. - Weber, E. U. 2017. "Breaking cognitive barriers to a sustainable future." Nature Human Behaviour 1(1): 0013. https://doi.org/10.1038/s41562-016-0013 <i>Optional material:</i> - Intergovernmental Panel on Climate Change (IPCC). 2022. "Chapter 5: Demand, services and social aspects of mitigation." In Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. https://www.ipcc.ch/report/ar6/wg3/wg3-report-chapter-5.pdf	April 7th TUE 16h–18h
8	Climate policy in action: the European Green Deal <i>Profesor/a:</i> M. Silvi <i>Mandatory material:</i> - Claeys, Gregory; Tagliapietra, Simone; Zachmann, Georg. 2019. "How to make the European Green Deal work". Bruegel Policy Contribution, No. 2019/13, Bruegel, Brussels https://www.econstor.eu/bitstream/10419/237632/1/168713524X.pdf	April 9th THU 16h–18h

9	Inequality and climate policy <i>Profesor/a: J. Teixidó</i> <i>Mandatory material:</i> - Bel, G., and Teixidó, J. J. 2020. "The political economy of the Paris Agreement: Income inequality and climate policy." <i>Journal of Cleaner Production</i>, 258, 121002. https://doi.org/10.1016/j.jclepro.2020.121002 - Jakob, M. et al. 2020. The future of coal in a carbon-constrained climate. <i>Nature Climate Change</i>, 10(8), 704–707. https://doi.org/10.1038/s41558-020-0866-1 - Roy, J. et al. 2018. Chapter 5: Sustainable Development, Poverty Eradication and Reducing Inequalities. In <i>Global Warming of 1.5 °C an IPCC special report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change</i>. Retrieved from https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Chapter_5_LR.pdf	April 10th FRI 15h-17h
WEEK 4: CLIMATE POLICY IN ACTION		
10	Evaluation activity 2: test on the contents of the 2nd and 3rd weeks. Climate policy in action: the Inflation Reduction Act (USA) <i>Profesor/a: M. Silvi</i> <i>Mandatory material:</i> - Fiorino, D.J. 2025. "What Does a Second Trump Term Mean for US Environmental Policy?" <i>Policy Quarterly</i> 21 (1). Retrieved from https://ojs.victoria.ac.nz/pq/article/view/9725/8584 <i>Optional material:</i> - Narassimhan, E., Koester, S.; Gallagher, K.S. 2022. "Carbon Pricing in the US: Examining State-Level Policy Support and Federal Resistance." <i>Politics and Governance</i> 10, no. 1: 1–16. https://doi.org/10.17645/pag.v10i1.4857	April 14th TUE 16h–18h
11	Climate policy in action: China and India <i>Profesor/a: M. Silvi</i> <i>Mandatory material:</i> - Material to be shared before class	April 16th THU 16h–18h
12	Evaluation activity 3: students group presentations and European Council voting simulation. Conclusions <i>Profesor/a: M. Silvi</i>	April 17th FRI 15–17h

CONOCIMIENTOS PREVIOS

RELACIÓN CON OTRAS ASIGNATURAS DE LA MISMA TITULACIÓN

OTRO TIPO DE REQUISITOS

METODOLOGÍA DOCENTE

The course will be a combination of frontal lectures, in-class exercises and student-led presentations/discussions.

SISTEMA DE EVALUACIÓN

The evaluation system is presented as follows:

1. Two 30-minutes written tests at the start of the 2nd and 4th week on the content of the previous weeks **(60%)**
2. Final group policy brief and simulated participation in a voting session of the European Council simulation in the last session **(30%)**
3. Attendance and participation **(10%)**

VOLUMEN DE TRABAJO

HORAS DE DEDICACIÓN

TOTALES	75
CLASES TEORICO PRÁCTICAS	24
TRABAJOS DIRIGIDOS	25
TRABAJO AUTÓNOMO	26

BIBLIOGRAFÍA BÁSICA

- Chancel, L., Bothe, P., Voituriez, T. 2023. "Climate Inequality Report 2023". *World Inequality Lab Study 2023/1*. <https://wid.world/document/climate-inequality-report-2023/>
- Fanning, A.L. & Hickel, J. 2023. Compensation for atmospheric appropriation. *Nature Sustainability* 6, 1077–1086. <https://doi.org/10.1038/s41893-023-01130-8>

- Padilla and Ramos-Martín eds.(2023) Edward Elgar Encyclopedia of Ecological Economics. <https://www.e-elgar.com/shop/gbp/elgar-encyclopedia-of-ecological-economics-9781802200409.html>
- Oxfam. 2023. Carbon Inequality in 2030. Joint Agency Briefing Note. <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621305/bn-carbon-inequality-2030-051121-en.pdf>
- Roemer, J. E. (2011). The Ethics of Intertemporal Distribution in a Warming Planet. *Environmental and Resource Economics*, 48(3), 363–390. <https://doi.org/10.1007/s10640-010-9414-1>
- Stavins, R.N. 2011. "The Problem of the Commons: Still Unsettled after 100 Years" *American Economic Review* 101:81-108. https://heep.hks.harvard.edu/files/heep/files/dp22_stavins.pdf
- Tietenberg, T.H. & Lewis, L., 2024. *Environmental and natural resource economics*. 12th ed. New York: Routledge.