COURSE SYLLABUS

Introduction to Sustainable Development and Global Governance
2023-2024

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Office hours : To be announced (TBA) in Aula Global
Class time & location: Wednesdays 15:45-19:00 @Puerta de Toledo Campus

Course description

This course aims to introduce students to major concepts and issues in sustainable development and global governance. It discusses the intertwined challenges of environmental and socioeconomic sustainability. It explores the multifaceted impact of the climate change, offering a historical analysis regarding the evolution of the Anthropocene.

The course is organized in **three Parts**. **Part I** is a general introduction to environmental and socioeconomic sustainability, as well as global governance. It reviews some key concepts such as sustainable development, vulnerability, mitigation, and adaptation. It discusses the fragmented architecture of global governance and its deficiencies with respect to tackling the challenges of sustainability. **Part II** is an introduction to environmental change in global history, examining how the economy and the environment interacted in the long run. It provides a historical background to present-day environmental sustainability challenges, focusing on how agri-food systems, fuel use and material extraction have transformed both economy and ecology before and since the Industrial Revolution. **Part III** is an introduction to behavioral decision-making, behavioral change in the context of climate change. Exploring environmental policy design and its behavioral implications, this last part reviews the creation of sustainable development goals and discusses the measurement of sustainability. **The Course Schedule** below lists specific issues and readings to be covered on a weekly basis.

Course Requirements

Students are expected to be active participants in this course, which is designed as consisting of both lectures and practical sessions *(practicas)*. Therefore, it is essential that you come to class prepared to discuss the readings for each meeting. Additional short

readings may be assigned over the course of the semester (complementing or substituting those listed in the syllabus). In case you miss a class, please check the ***Aula Global*** in order to be informed about readings and assignments.

It is highly recommended to keep up-to-date about ongoing global and local developments about environmental and socioeconomic sustainability and global governance.

There will be **class discussions** in designated weeks where **a group of students** will act as "**discussion leaders**" and be responsible for **moderating** the discussion based on the questions sent by others prior to the session. In those weeks, each of you will post **a question on Aula Global** about the readings assigned for that week (by 11:00am on Tuesdays, the latest). Discussion leaders will go over the questions and come up with a list of **maximum 3 questions**, which they will post on Aula Global by 11:00am on Wednesdays. Discussion leaders should feel free to revise and expand the questions and link them to empirical data and phenomena, so that they would be apt for a fruitful discussion. **Discussion questions** you post (particularly based on their 'informed character' tightly linked to the readings, theories and empirics) will constitute an important part of your course **participation grade**.

Additionally, there will be **group presentations** and **debates** that may be carried out in slightly different formats in **three distinct Parts** of this course. **Five groups** will be formed in the beginning of the semester. Over the course of the semester, each group will do **one presentation** and **one discussion leadership**. Groups may choose the parts where they will carry out these tasks. Detailed explanations will be provided by the professors who will teach distinct parts of the course.

Final paper (an individual assignment) should address an issue area related to the content of this course. In order to pass the course, students ought to get a minimum 50 (out of 100) in this assignment. The final paper may be written in one of the three distinct formats: a policy paper, a position paper, or an empirical research paper. A list of potential topics and detailed instructions regarding the expectations in each format will be uploaded on Aula Global. Students should inform the professors with respect to the topics and the format they choose by November 22, 2023.

The break-up of grading based on specific assignments is listed below.

Grading

Presentations (group assignment)	20%
Discussion leadership, debates (group)	20%
Class participation (individual assignment)	20%
Final paper (individual)	40%

COURSE SCHEDULE

PART I. Basic notions and institutions

In this part of the course, 1 group will act as the discussion leader in Week 3, and 2 groups will present in Week 4.

Week 1: September 13

- Introduction to the Course
- What is socioeconomic and environmental sustainability?
    - Where does global governance enter the equation and why does it matter?
    - Ongoing issues, actors, interests, and institutions

Practica: Logistics of the course, general expectations, forming groups.

Required readings:

- Young, O. R. (2021) *Grand challenges of planetary governance: Global order in turbulent times*, Cheltenham and Northampton: Edward Elgar Publishing. PP.1-12; 16-35.
- IPCC (2023), 'Climate Change 2023: Synthesis Report', [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp-42-51.

Optional

- IPCC (2023) 'Summary for Policymakers', In: Climate Change 2023, pp.1-34.
- UN (2021) 'Our Common Agenda,' Report of the Secretary-General, New York: UN.

Week 2: September 20

- Basic concepts of sustainability and global governance
    - Anthropocene, vulnerability, adaptation, and mitigation
    - Sustainable development goals
- Architecture of global governance
    - Deficiencies of the existing institutional set-up
    - Call for a renewed 'social contract'

Practica: Debate on the challenges to sustainability.

Required readings:

- Maslin, M.A., and S.L. Lewis (2015) 'Anthropocene: Earth System, geological, philosophical and political paradigm shifts,' *The Anthropocene Review.* 2(2) 108-116.
- Lopez-Claros, A., Dahl, A. L., Groff, M. (2020) *Global Governance and the Emergence of Global Institutions for the 21st Century*, Cambridge University Press, pp.3-27.
- Young, O. (2017), *Governing Complex Systems*, Cambridge, MA: The MIT Press, Part II.
- UN, 'Transforming our world: The 2030 Agenda for Sustainable Development', New York: UN, A/RES/70/1 (skim through).

Optional

- Young (2021), Chapters 3, 6 and 8.
- Barnett, M., and R. Duvall (2005), 'Power in global governance,' pp. 1-23.

Week 3: September 27

- Major challenges of economic sustainability
  - Ongoing tensions in the global economy
  - Contestations on multilateralism
- Global economic integration and implications for sustainable development
  - International trade and climate change
- The operation of the international trade regime: sustainability and governance-related issues
  - The politics and challenges of the WTO
  - Dispute settlement mechanism: rules and practice

***Practica*:** Discussion Leadership (1 group)

Required readings:

- Lopez-Claros et al. (2020), 'UN Specialized Agencies and Governance for Global Risks,' In *Global Governance*, pp.293-308.
- Wouters, J. and V. Hegde (2022) 'Reform of global trade governance: the role of the European Union,' *Journal of European Integration*, 44:5, 715-730.
- Oxfam (2002) 'Rigged Rules and Double Standards: Trade, Globalization, and the Fight against Poverty.' Oxfam Trade Report.
- World Trade Report (2022), 'Climate Change and International Trade,' WTO, pp.9-15, 18-48.

  Optional
  - 'UN Monetary and Financial Conference at Bretton Woods.' Summary of Agreements. 7/22/1944.
  - Capling, A., and S. Tromme (2017) "The Evolution of the Global Trade Regime," in Ravenhill, J. (ed.) *Global Political Economy*.
  - Tamiotti et al. (2009) 'Trade and Climate Change,' Geneva: WTO-UNEP Report.
  - Brenton, P., and V. Chemutai (2021) 'The Trade and Climate Change Nexus: The Urgency and Opportunities for Developing Countries,' Washington, DC: World Bank.
  - Barton, J.H. et al. (2008*) The Evolution of the Trade Regime: Politics, Law, and Economics of the GATT and the WTO*, Princeton, N.J.: Princeton University Press.
  - Shaffer, G. (2005) 'Power, governance and the WTO: A Comparative institutional approach,' in Barnett, M., and R. Duvall (eds.) *Power in Global Governance.*
  - Rivoli, P. (2009) *The Travels of a T-Shirt in the Global Economy*, N.J.: Wiley.
  - Lopez-Claros et al, 'Global Financial Architecture and the International Monetary Fund' in *Global Governance*, Chapter 15.
  - Nelson, R., and M.A. Weiss (2015) "IMF Reforms: Issues for Congress," Washington, D.C.: Congressional Research Service.

- Tamale, N. (2021) 'Adding fuel to fire How IMF demands for austerity will drive up inequality worldwide', Oxfam Briefing Report, August 2021.
- Solís, M. (2020), "The post COVID-19 world: Economic nationalism triumphant?," Brookings Institute, 2020/07/10.

Week 4: October 4

- Major challenges of environmental sustainability
- Architecture of global environmental governance
  - Constellation of actors and agreements
  - Varying models and effectiveness

Required readings:

- Held, D. and C. Roger (2018) 'Three models of global climate governance: From Kyoto to Paris and beyond', *Global Policy*, 9(4): 527-537.
- Keohane, R.O. and D.C. Victor (2011) 'The Regime Complex for Climate Change,' *Perspectives on Politics*, 9 (1): 7-23.
- IPCC (2023), 'Climate Change 2023: Synthesis Report', [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 42-66 (skim through the rest).

Optional

- UNFCCC (2023) 'Synthesis report by the co-facilitators on the technical dialogue of the first global stocktake', FCCC/SB/2023/9, September 8, 2023.
- Lopez-Claros et al. (2020), 'Responding to Global Environmental Crises,' In *Global Governance*, pp. 360-378 (Chapter 16).
- Pattberg, P., Kaiser, C., Widerberg, O., and J. Stripple (2022) '20 Years of global climate change governance research: Taking stock and moving forward,' *International Environmental Agreements*, 22:295–315.
- Biermann, F. et al. (2009) 'The Fragmentation of Global Governance Architectures: A Framework for Analysis,' *Global Environmental Politics*, 9(4) 14-34.

Practica: Presentations on global governance (**2 groups**).

2 groups will **pick two distinct trade disputes**, overseen by the WTO and relevant for environmental and/or socioeconomic sustainability (a list will be provided by the professor). They will examine these disputes thoroughly based on the issues at stake, stakeholders, and their interests. They will study specific steps of the dispute settlement process. They will evaluate the effectiveness of the WTO's Dispute Settlement Body regarding the specific disputes they focus on. Presentations should incorporate critical evaluations as to the operation of this significant multilateral institution. Further instructions will be provided in Aula Global.

PART II. Introduction to Environmental Change in Global History

In this part, there are three required readings per class, but you can split them within your group. While most readings are interdisciplinary, they anchor themselves as primarily History, Economics, or Environmental Science texts. I encourage you to focus on the readings from the field(s) which you are *less* familiar with. Understanding environmental change is necessarily an interdisciplinary endeavor and (as the law of decreasing marginal returns suggests) we stand to gain more from venturing into fields we do not know well.

In class, we will also do some hands-on work with quantitative data on global environmental change, so please bring a laptop or similar device to class if you can. You will not have to submit your data work, but it can be useful to help you identify sources and methods which you can then use for your final essay.

Week 5: October 11

Environmental change and economic development: a very long view

- Was there a 'prehistoric Anthropocene'?
- How did pre-industrial economies transform the environment?
- Does (pre-industrial) history provide good analogies to understand present and future environmental challenges?

- **Práctica:** hands-on intro to global databases of long-term environmental change:
  - Global Carbon Project · Global Carbon Atlas: https://www.globalcarbonproject.org
  - Energy History: https://histecon.fas.harvard.edu/energyhistory/energydata.html
  - Department of Social Ecology, University of Vienna (BOKU): https://boku.ac.at/en/wiso/sec/data-download

Required readings: (H=History; S=Environmental Science; E=Economics)

- [S] Ruddiman, W. F. (2010). *Plows, Plagues, and Petroleum*. Princeton University Press, pp. 65-76.
- [H] Wrigley, E. A. (2010). *Energy and the English Industrial Revolution*. Cambridge: Cambridge University Press, pp. 9-25.
- [S] Tubi, A., Mordechai, L., Feitelson, E., et al. (2022). Can we learn from the past? Towards better analogies and historical inference in society-environmental change research. *Global Environmental Change*, *76*, 102570.

Optional

- [H] Diamond, J. (2011). *Collapse: How Societies Choose to Fail or Succeed*. Penguin, pp. 157-177.
- [S] Monastersky, R. (2015). The human age. *Nature*, *519*(7542), 144.
- [S] Malm, A., & Hornborg, A. (2014). The geology of mankind? A critique of the Anthropocene narrative. *The Anthropocene Review*, *1*(1), 62-69.

Week 6: October 18

In the shadow of modern economic growth: environmental change since industrialization

- 'It all began with steam'? The Industrial Revolution and the Anthropocene
- Is the global spread of manufacturing to blame for environmental degradation? 'Late Industrialization' in Asia, Latin America, and Africa
- Something new under the sun? The 'great acceleration' of environmental impacts since c.1950

- **Práctica**: Student presentation – When did the Anthropocene begin? How do different possible start dates shape global sustainability debates?

Required readings: (H=History; S=Environmental Science; E=Economics)

- [H] McNeill, J. R. (2015). Energy, population, and environmental change since 1750: entering the Anthropocene. In J. R. McNeill & K. Pomeranz (Eds.), *The Cambridge World History. Volume VII, Part 1.* Cambridge: Cambridge University Press, pp. 51-82.
- [E] Fernihough, A., & O'Rourke, K. H. (2021). Coal and the European industrial revolution. *The Economic Journal*, *131*(635), 1135-1149.
- [H] Austin, G. (2017). Introduction. In G. Austin (Ed.), *Economic development and environmental history in the Anthropocene: perspectives on Asia and Africa* (pp. 1-22). London: Bloomsbury.

Optional

- [S] Smil, V. (1994). *Energy in World History*. Boulder, CO: Westview, pp. 157-170.
- [H] McNeill, J. R. (2001). *Something new under the sun: An environmental history of the twentieth-century world.* WW Norton & Company. Prologue and Epilogue.
- [H] Warde, P. (2013). A Modern Energy Regime. In A. Kander, P. Malanima, & P. Warde (Eds.), *Power to the People: Energy in Europe Over the Last Five Centuries* (pp. 131-158). Princeton University Press.

Week 7: October 25

Feeding the world: land, diets, and agriculture

- Land-use change and agricultural revolutions past and present.
- How do people's diets change as their economies develop?
- How does international trade redistribute foods and their local environmental impacts?

- **Práctica:** Discussion leadership – By 2050 the world will need to feed 9 billion people: is there enough land left?

Required readings: (H=History; S=Environmental Science; E=Economics)

- [E] Federico, G. (2005). *Feeding the World: An Economic History of Agriculture, 1800-2000*. Princeton: Princeton University Press, pp. 1-15.
- [H] McNeill, J. R. (2001). *Something new under the sun: An environmental history of the twentieth-century world.* WW Norton & Company, pp. 212-227.

- [S] Piñero, P., Aguilera, E., Travieso, E., et al. 'Agro-food greenhouse gas emissions are increasingly driven by foreign demand.' preprint version under review by *Nature Food*.

Optional

- [S] McNeill, J. R., & Winiwarter, V. (2004). Breaking the sod: Humankind, history, and soil. *Science*, *304*(5677), 1627-1629.
- [S] Smil, V. (2022). *How the World Really Works: a scientist's guide to our past, present, and future*, London: Penguin, Chapter 2.

Week 8: November 2 and 3

Planetary mine: resource extraction, energy sources and economic development

- Has modern economic growth successfully decoupled from material extraction?
- How are metal and energy extraction and consumption distributed globally?
- Can sustainable development (national or global) be fossil-fueled?

- ***Práctica:*** Discussion leadership: Can modern economic growth decouple from fossil fuels?

Required readings: (H=History; S=Environmental Science; E=Economics)

- [H] Smil, V. (2013) *Harvesting the Biosphere: what we have taken from nature*. MIT Press, 2012, pp. 131-150.
- [S] Krausmann, F., Gingrich, S., Eisenmenger, et al. (2009). Growth in global materials use, GDP and population during the 20th century. *Ecological economics*, *68*(10), 2696-2705.
- [E] Ross, M. L. (2012). *The Oil Curse: How Petroleum Wealth Shapes the Development of Nations*. Princeton University Press, Chapter 1.

Optional

- [E] Schaffartzik, A., Mayer, A., Eisenmenger, N., & Krausmann, F. (2016). Global patterns of metal extractivism, 1950–2010: Providing the bones for the industrial society's skeleton. *Ecological Economics*, *122*, 101-110.
- [S] Smil, V. (2022). *How the World Really Works: a scientist's guide to our past, present, and future*, London: Penguin, Chapter 1.

Week 9: November 8

Looking to the future: the Environmental Kuznets Curve and potential disasters

- Can economies 'grow now and clean up later'?
- Will modern economic growth deliver prosperity for all within planetary boundaries?
- How can history help us think about possible future environmental disasters?

- ***Práctica:*** Student presentations on three questions: Have richer countries taken better care of the environment than poorer countries?; What does history tell us about possible future environmental disasters?; Can economies 'grow now and clean up later'?

Required readings: (H=History; S=Environmental Science; E=Economics)

- [E] Stern, D. I. (2004). The rise and fall of the environmental Kuznets curve. *World development*, *32*(8), 1419-1439.
- [S] Rockström, J., Steffen, W., Noone, K., et al. (2009). A safe operating space for humanity. *nature*, *461*(7263), 472-475.
- [S] O'Neill, D. W., Fanning, A. L., Lamb, W. F., & Steinberger, J. K. (2018). A good life for all within planetary boundaries. *Nature sustainability*, *1*(2), 88-95.
- [H] Bavel, B. J. P. v., Curtis, D. R., Dijkman, J., Hannaford, M., De Keyzer, M., Van Onacker, E., & Soens, T. (2020). *Disasters and History: The Vulnerability and Resilience of Past Societies*, pp. 159-187
- **Look at the comparative empirical evidence using this online database: https://goodlife.leeds.ac.uk/**

Optional

- [H] Wrigley, E. A. (2016). *The Path to Sustained Growth: England's transition from an organic economy to an industrial revolution*. Cambridge: Cambridge University Press, pp. 198-205.
- [S] Kemp, L., Xu, C., Depledge, J., et al. (2022). Climate Endgame: Exploring catastrophic climate change scenarios. *Proceedings of the National Academy of Sciences*, *119*(34), e2108146119.
- [E] Nordhaus, W. D. (2021). *The Spirit of Green*. Princeton University Press, pp. 83-95.

PART III. Introduction to behavioral decision-making, climate and behavioral change

In this part of the course, all classes, except for those in Weeks 13 and 14, will be structured in the following way. In the first part of the class, the professor will introduce the topics by addressing and framing the main issues in a broad way. In the second part of the class, students' presentations will take place. Each group will present a specific paper/reading related to the topics in no more than 20 minutes+10 minutes of question. The presentation will include the following

- a short summary of the paper,
- the main research questions, data, hypothesis
- critical assessment of way they have been addressed and answered in the paper and
- some personal comments on external validity, hypothesis and methodology

The presentation should be concise but complete. Students who will present and discuss a paper will send to the professor their PPT slides 24 h. in advance of their presentation. The presenting group should choose at least three questions from the list published in Aula Global and discuss them after their presentation to initiate a debate with the classroom.

Week 10: November 15

Introduction to Behavioral Decision Making, behavioral change and Climate Change phenomenon.

- Why do we need behavioral economics and behavioral science to understand sustainability and climate change?
  - **Practica: Students Presentation:** What are the behavioral drives of sustainable behaviors?

Required readings:

- Seo, S. Niggol. *The behavioral economics of climate change: adaptation behaviors, global public goods, breakthrough technologies, and policy-making*. Academic Press, 2017- Ch. 1 and 2
- Bowles, S., Carlin, W. and Stevens, M. (2017). 'Capstone: ECONOMICS OF THE ENVIRONMENT'. Unit 20 in The CORE team, The Economy. Available at: https://www.core-econ.org. [Accessed on 30/07/2022].-Chapter 20.2-20.4, 20.9

Optional

- Carattini, S., Levin, S., & Tavoni, A. (2020). Cooperation in the climate commons. Review of Environmental Economics and Policy.
- Carlsson, F., Gravert, C., Johansson-Stenman, O., & Kurz, V. (2021). The use of green nudges as an environmental policy instrument. Review of Environmental Economics and Policy, 15(2), 216-237

Week 11: November 22

Behavioral Economics and Environmental Policy Design

- What is the political economy model behind Environmental Policy design?
- ***Practica:*** **Discussion Leadership:** What are the main ingredients for an Environmental Policy Design?

Required readings:

- Seo, S. Niggol. *The behavioral economics of climate change: adaptation behaviors, global public goods, breakthrough technologies, and policy-making*. Academic Press, 2017- Chapter 3-4
- Bowles, S., Carlin, W. and Stevens, M. (2017). 'Capstone: ECONOMICS OF THE ENVIRONMENT'. Unit 20 in The CORE team, The Economy. Available at: https://www.core-econ.org. [Accessed on 30/07/2022]- Chapter 20.5, 7, 8
- European Commission, 'Designing policy to influence consumers: Consumer behaviour relating to the purchasing of environmentally preferable goods' (http://ec.europa.eu/environment/enveco/pdf/RealWorldConsumerBehaviour.pdf). (EC)
- UK Cabinet Office, Institute for Government, —MINDSPACE: Influencing behaviour through public policy: http://www.instituteforgovernment.org.uk/sites/default/files/publications/MINDSPACE.pdf. (UKC)

Optional

- Hu, H., Chen, D., Chang, C. P., & Chu, Y. (2021). The political economy of environmental consequences: A review of the empirical literature. *Journal of Economic Surveys*, 35(1), 250-306.
- Carlsson, F., & Johansson-Stenman, O. (2012). Behavioral economics and environmental policy. Annu. Rev. Resour. Econ., 4(1), 75-99.
- Springel, K. (2021). It's Not Easy Being "Green": Lessons from Norway's Experience with Incentives for Electric Vehicle Infrastructure. *Review of Environmental Economics and Policy*, 15(2), 352-359.

Week 12: November 29

The determinants of Green Policy Acceptance.

- What are the factors determining people's acceptance to vote or accept mitigation policies?
- ***Practica:*** **Discussion Leadership:** Is there an exhaustive list of factors determining citizens' willingness to accept policies or we are missing something out?

Required readings:

- Vincent, & Mäler, K.-G. (2005). Handbook of Environmental Economics: Valuing environmental changes (2nd edition.). North-Holland/Elsevier- Chapter 26
- Carattini, S., Carvalho, M. and Fankhauser, S., (2018). Overcoming public resistance to carbon taxes. Wiley Interdisciplinary Reviews: Climate Change, 9(5), p.e531.

- Farrow, K., Grolleau, G., & Ibanez, L. (2017). Social norms and pro-environmental behavior: A review of the evidence. *Ecological Economics*, 140, 1-13.

Optional

- Millner, A., & Ollivier, H. (2020). Beliefs, politics, and environmental policy. Review of Environmental Economics and Policy.
- Maestre-Andrés, S., Drews, S., & van den Bergh, J. (2019). Perceived fairness and public acceptability of carbon pricing: a review of the literature. Climate policy, 19(9), 1186-1204.
- Hertwig, R., & Grüne-Yanoff, T. (2017). Nudging and boosting: Steering or empowering good decisions. Perspectives on Psychological Science, 12(6), 973-986.

Week 13: December 6

How to measure sustainability?

- How are the SDGs designed?
- Construction of composite indicator

- **Practica:** Exploring the construction of composite indicators

Required readings:

- Joint Research Centre-European Commission. (2008). Handbook on constructing composite indicators: methodology and user guide. OECD publishing.

Week 14: December 13

How to measure behavioral change and people's attitude to support policies

- From data to field and lab experiments, survey and others methods

- **Practica:** Exploring the design of Willingness to Pay

Required readings:

- Bowles, S., Carlin, W. and Stevens, M. (2017). 'Capstone: ECONOMICS OF THE ENVIRONMENT'. Unit 20 in The CORE team, The Economy. Available at: https://www.core-econ.org. [Accessed on 30/07/2022]-Chapter 20.6
- Vincent, & Mäler, K.-G. (2005). Handbook of Environmental Economics: Valuing environmental changes (2nd edition.). North-Holland/Elsevier- Chapter 17-19

Optional

- Levitt, S. D., & List, J. A. (2007). What do laboratory experiments measuring social preferences reveal about the real world?. *Journal of Economic perspectives*, 21(2), 153-174.