**Online Master on Degrowth**

**Academic year: 2021-22**

**MODULE 2– ECONOMICS OF DEGROWTH**

**Courses and Dates\***

1. The Hegemony of Growth (Matthias Schmelzer)- **11 January, 13 January, 18 January, 21 January, 25 January**

2. Ecological Economics and Degrowth (Elke Pirgmaier)- **27 January, 1 Feb, 3 Feb, 8 Feb, 10 Feb**

3. Social and biophysical models of energy transition (Aljoša Slameršak, Joël Foramitti)- **15 Feb, 17 Feb, 22 Feb, 24 Feb, 25 Feb**

4. Ecological economic models and degrowth ( Simone D´Alessandro, Andre Cieplinski)- **1 March, 3 March, 8 March, 10 March, 15 March**

5. Feminist economics and degrowth (Corinna Dengler)- **17 March, 22 March, 24 March, 29 March, 31 March**

6. Decolonising Degrowth (Brototi Roy)- **5 April, 7 April, 19 April, 21 April, 22 April**

**\*** Each class will be held from 14 to 16.30 CET unless otherwise indicated.

**Evaluation-**

There will be a three-tiered evaluation of the module as a whole (and not this course separately) that will involve three outputs – one or two written, and one or two visual or oral. This will be confirmed in due time.

**Course 1 - The Hegemony of Growth**

**Instructor**:

Matthias Schmelzer

Post-doctoral Researcher

Institute of Sociology, Friedrich-Schiller-University Jena

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**Objectives**

This course will open the module on economics of degrowth by analyzing history of what has been called the economic growth paradigm. In this course we will introduce the concept of the growth paradigm and then go back to the early origins of cornucopian ideas since the 17th century, discuss the invention of “the economy” and GDP statistics in the mid-twentieth century, and analyze the rise but also critique of the growth paradigm. By the end of this course, you will be able to understand not only, what the “growth paradigm” is and how it became hegemonic, but also why this history is key to understand core debates around degrowth and post-growth futures more generally.

**Structure**

The course has five classes of two and a half-hour each. Each class will involve a mixing of teaching, discussion and group work. To participate in class, you should have read the readings carefully in advance. Without this preparation, you will not be able to follow the class, and what you will get out of it will be limited.

The first class will present introduce core concepts of the course, define the “growth paradigm”, and discuss why the history of its making is important for research on degrowth. The second class will analyse historically, how early growth ideas emerged since the 17th century in the context of capitalist and colonialist expansion. The third class will examine the invention of „the economy“ and the statistics defining economic growth, the Gross Domestic Product (GDP). The fourth class focuses in detail on the growth paradigm and the contested making of economic growthmanship in the post-war period. The fifth class will conclude by analyzing how the hegemony of growth has been challenged in growth critical debates in particular since the 1970s and how these critiques are related to degrowth.

**PROGRAM OUTLINE**

**Class 1 – Introduction: The history of the growth paradigm – and why it is important for degrowth**

Schmelzer, Matthias, ‘Introduction’, in *The Hegemony of Growth. The OECD and the Making of the Economic Growth Paradigm*. Cambridge: Cambridge University Press, 2016, 1-33.

Excerpt pp. 292-296 from: Kallis, Giorgos, Vasilis Kostakis, Steffen Lange, Barbara Muraca, Susan Paulson, und Matthias Schmelzer. „Research on Degrowth“. *Annual Review of Environment and Resources* 43 (2018): 291–316.

Matthias Schmelzer, “Undoing the Ideology of Growth: Hegemony, Path Dependencies and Power in the History of the Growth Paradigm”, Blog entry at degrowth.info, 7 July 2016.

**Class 2 – The early origins of growth and cornucopianism**

Dale, Gareth. „17th century origins of economic growth.“ In *History of the Future of Economic Growth. Historical roots of current debates on sustainable degrowth*, hrsg. v. Iris Borowy und Matthias Schmelzer. London: Routledge, pp. 27-51.

Jonsson, Fredrik Albritton. “The Origins of Cornucopianism: A Preliminary Genealogy.” *Critical Historical Studies* 1, no. 1 (2014): 151–68.

**Class 3 – The invention of „the economy“ and GDP**

Mitchell, Timothy. “Fixing the Economy.” *Cultural Studies* 12, no. 1 (1998): 82–101.

Schmelzer, Matthias, “Measuring growth: The international standardization of national income accounting“, in *The Hegemony of Growth. The OECD and the Making of the Economic Growth Paradigm*. Cambridge: Cambridge University Press, 2016, 85-116.

Costanza, Robert, Ida Kubiszewski, Enrico Giovannini, Hunter Lovins, Jacqueline McGlade, Kate E. Pickett, Kristín Vala Ragnarsdóttir, Debra Roberts, Roberto De Vogli, and Richard Wilkinson. “Development: Time to Leave GDP behind.” *Nature* 505, no. 7483 (2014): 283–85.

Podcast “The Invention Of ‘The Economy’”, NPR Planet Money (17 minutes), https://www.npr.org/sections/money/2017/03/15/520294083/episode-522-the-invention-of-the-economy?t=1639484010185

**Class 4 – The growth paradigm**

Schmelzer, Matthias, “Power, progress, and prosperity: Growth as universal yardstick and the OECD’s 1961 growth target in perspective“, in *The Hegemony of Growth. The OECD and the Making of the Economic Growth Paradigm*. Cambridge: Cambridge University Press, 2016: 163-188.

Marylin Waring, “Women as Non-Producers”, in *Counting for Nothing: What Men Value and What Women Are Worth*. Toronto: University of Toronto Press, 1999, 1-11.

Schmelzer, Matthias. „The growth paradigm: History, hegemony, and the contested making of economic growthmanship“. *Ecological Economics* 118 (2015): 262–71.

**Class 5 – The critique of growth and the search for a new paradigm**

Schmelzer, Matthias. “‘Born in the Corridors of the OECD’: The Forgotten Origins of the Club of Rome, Transnational Networks, and the 1970s in Global History.” *Journal of Global History* 12, no. 1 (2017): 26–48.

Stephen J. Macekura, “The Search for Alternatives”, in *Mismeasure of Progress: Economic Growth and Its Critics*. Chicago: University of Chicago Pr., 2020, 138-165.

**Course 2- ECOLOGICAL ECONOMICS AND DEGROWTH**

\*\* An amended syllabus incl. guiding questions for the readings will be made available in January \*\*

**Instructor:**

Dr Elke Pirgmaier

Postdoctoral researcher

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**Objectives**

Ecological economics is a relatively young discipline established in the late 1980s that critically studies the intertwined social, ecological and economic crises facing humanity. It moves beyond standard economic applications to the environment by adopting different theories and methodologies to understand wellbeing within planetary boundaries. This course offers an introduction to ecological economics in relation to degrowth. By the end of the course you will be able to understand how a critical ecological economics perspective differs from mainstream economics, and what difference this makes for implementing degrowth ideas.

**Structure**

The course has five, two and a half-hour classes. Each class combines teaching, discussion and group work. It is essential that you have read the mandatory readings carefully in advance. Without this preparation, you will not be able to follow the class, and your learning experience will be limited.

Class 1 provides an overview of the field of ecological economics, including its history.

Class 2 introduces why and how ecological economists think about the economy in biophysical terms.

Class 3 links such a biophysical understanding of economic activity to human needs and wellbeing.

Class 4 tackles the role of economics to provisioning wellbeing within planetary boundaries (or not).

Class 5 explores modes of thinking to facilitate social ecological transformations.

**PROGRAMME OUTLINE**

**Class 1 – What is ecological economics?**

Røpke, I., 2004. The early history of modern ecological economics. *Ecological Economics* 50, 293–314. https://doi.org/10.1016/j.ecolecon.2004.02.012

Spash, C., 2017. Social ecological economics. Chapter 1 in Routledge Handbook of Ecological Economics, Routledge: London and New York, 3-17.

**Class 2 –** **The biophysical economy: connecting economics with thermodynamics and ecology**

Krausmann, F., 2017. Social metabolism. Chapter 11 in Routledge Handbook of Ecological Economics, Routledge: London and New York, 108-118.

Norgaard, R., 2017. Coevolutionary social ecological economics. Chapter 13 in in Routledge Handbook of Ecological Economics, Routledge: London and New York, 129-137.

**Class 3 – Human needs and wellbeing**

Fanning, A.L., O’Neill, D.W., Hickel, J., Roux, N. 2021. The social shortfall and ecological overshoot of nations. *Nature Sustainability*, https: https://doi.org/10.1038/s41893-021-00799-z

Gough, I. 2015. Climate change and sustainable welfare: the centrality of human needs. Cambridge Journal of Economics 2015, 39, 1191–1214. https://doi:10.1093/cje/bev039

**Class 4 – The market and social provisioning**

Dasgupta, P. 2007. Markets. Chapter 4 in: Economics: A Very Short Introduction, Oxford University Press, Oxford. 72-89.

Pirgmaier, E. (2017). The Neoclassical Trojan Horse of Steady-State Economics, Ecological Economics 133, 52-61. https://doi.org/10.1016/j.ecolecon.2016.11.010

Zaman, A. 2017. Unregulated markets and the transformation of society. Chapter 18 in: Routledge Handbook of Ecological Economics, Routledge: London and New York, 185-193.

**Class 5 – Science for social-ecological transformations**

Funtowicz, S.O., Ravetz, J.R., 1994. The worth of a songbird: ecological economics as a post-normal science. Ecological Economics 10, 197–207. https://doi.org/10.1016/0921-8009(94)90108-2

Meadows, D.H., 2002. Dancing with Systems. The Systems Thinker 13, 2–6.

**Course 3- Social and Biophysical models of energy transition**

**Instructors:**

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Pre-doctoral researcher, ICTA

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Joël Foramitti

Pre-doctoral researcher, ICTA

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**Objectives**

The objective of this course is to provide the students with the fundamental knowledge on the use of models in socio-ecological research. We intend to present a range of examples that demonstrate how models may assist us in studying the complex interactions between society and nature. We will learn about the rules of good modelling practices, which will help the students to critically assess the underlying assumptions of a model and to understand its contextual limitations.

**Structure**

The course has five, two and a half hour classes. Each one will involve a mix of teaching, discussion and group work. To participate in class, you should have read the readings carefully in advance.

* The first class will provide a general introduction on the use of models in research. An overview will be given on the different types and uses of models, and how they can increase our understanding of social and ecological dynamics.
* The second class will engage with the basic impact accounting models and statistical index models - such as the IPAT, the ecological footprint etc - and present their advantages and pitfalls. We will organize a short workshop experiment with an online-based IPAT model, where students will be able to explore the future scenario space of energy, per-capita GDP and population, and emissions, by changing the key parameters of the model.
* The third class will provide an overview of the feedback mechanisms within the Earth-system that underpin the problem of climate change. We will learn about the carbon cycle and how it affects the radiative imbalance driving global warming. We will explore the likely impacts of climate change in different regions by using the IPCC WGI Interactive Atlas. We will talk about the possibility of non-linear responses that can provoke runaway climate change.
* The fourth class will provide a brief overview of the mitigation levers modelled in the Integrated-Assessment-Models (IAMs) that are used by the IPCC, and point out the short-comings of these IAMs from the point of view of degrowth and ecological economics. We will discuss the issues of global inequality, climate responsibility, and damages.
* The fifth class will provide a brief introduction to the field of agent-based modeling and its applications to the study of complex systems. In an interactive experiment, we will learn how to design and run an agent-based simulation.

**PROGRAM OUTLINE**

**Class 1 – Introduction to models**

Epstein, J. M. (2008). Why model? Journal of artificial societies and social simulation, 11(4), 12. https://www.jasss.org/11/4/12.html

Gräbner, C. (2018). How to relate models to reality? An epistemological framework for the validation and verification of computational models. Journal of Artificial Societies and Social Simulation, 21(3). https://www.jasss.org/21/3/8.html

**Class 2 – Quantifying human impacts**

Steffen, Will, et al. "The trajectory of the Anthropocene: the great acceleration." *The Anthropocene Review* 2.1 (2015): 81-98.

Hickel, Jason. "The sustainable development index: Measuring the ecological efficiency of human development in the anthropocene." *Ecological Economics* 167 (2020): 106331.

O’Neill, D.W., Fanning, A.L., Lamb, W.F. *et al.* A good life for all within planetary boundaries. *Nat Sustain* **1,**88–95 (2018). https://doi.org/10.1038/s41893-018-0021-4

**Class 3 – Physical science of climate change and the IPCC scenarios**

Lenton, T. M. *et al.* *Proc. Natl Acad. Sci. USA* **105**, 1786–1793 (2008).

https://www.carbonbrief.org/in-depth-qa-the-ipccs-sixth-assessment-report-on-climate-science

**Class 4 – Mitigation in the IPCC scenarios**

Anderson, Kevin, and Glen Peters. "The trouble with negative emissions." *Science* 354.6309 (2016): 182-183.

Hickel, Jason, et al. "Urgent need for post-growth climate mitigation scenarios." *Nature Energy* 6.8 (2021): 766-768.

**Class 5 – Agent-based models of human behavior**

Arthur, W. B. (2021). Foundations of complexity economics. Nature Reviews Physics, 3(2), 136-145. https://doi.org/10.1038/s42254-020-00273-3

Foramitti, J., (2021). AgentPy: A package for agent-based modeling in Python.

Journal of Open Source Software, 6(62), 3065. https://doi.org/10.21105/joss.03065

**Course 4- Ecological economic models and degrowth**

**Instructors:**

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André Cieplinski

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**Structure**

The course has five, two and a half hour classes. To participate in class, you should have read the readings carefully in advance.

**Class 1 -Growth, Factor substitution, decoupling and the limits of growth critique** (Simone D’Alessandro)

The first lecture will introduce the students to production functions and the role of substitution. It will then present models of economic growth and discuss the role of factor price and substitution. This will enable students to understand the role of (carbon) prices in traditional economic models and some of the main critiques.

**Readings:** 10, 5, 7

**Class 2 -An introduction to Ecological Economics and Ecological Macroeconomics** (Simone D’Alessandro)

After a general introduction to ecological economics and its differences with respect to environmental economics, this lecture will present the emerging literature of ecological macroeconomics.

**Readings:** 8, 9, 11

**Class 3- Building a simple Ecological Macroeconomic Model 1** (André Cieplinski)

The lecturer will build a simple ecological macroeconomic model together with the students. Stock-flow consistency, sketching the system dynamics diagram, production, investment, consumption, emissions, materials and simulations.

**Readings:** 3, 4, 6

**Class 4- Building a simple Ecological Macroeconomic Model 2**  (André Cieplinski)

The lecturer will build a simple ecological macroeconomic model together with the students. Stock-flow consistency, sketching the system dynamics diagram, production, investment, consumption, emissions, materials and simulations.

**Readings:** 3, 4, 6

**Class 5- Degrowth in Ecological Macro Models** (Simone & André)

Part 1: lecturers will discuss how the literature has modelled degrowth so far.

Part 2: students (in groups) will deliver short presentation a policy/behavioural change congruent with degrowth and how it could be modelled.

Part 2: discussion on how to improve the representation of degrowth in simulation models.

**Readings:** 1, 2, 12

**References:**

1. Antal, M., Plank, B., Mokos, J. and Wiedenhofer, D., 2020. Is working less really good for the environment? A systematic review of the empirical evidence for resource use, greenhouse gas emissions and the ecological footprint. *Environmental Research Letters*.
2. Creutzig, F., Callaghan, M., Ramakrishnan, A., Javaid, A., Niamir, L., Minx, J., Müller-Hansen, F., Sovacool, B., Afroz, Z., Andor, M. and Antal, M., 2021. Reviewing the scope and thematic focus of 100 000 publications on energy consumption, services and social aspects of climate change: a big data approach to demand-side mitigation. *Environmental Research Letters*, *16*(3), p.033001.
3. Dafermos, Y., Nikolaidi, M. and Galanis, G., 2017. A stock-flow-fund ecological macroeconomic model. Ecological Economics, 131, pp.191-207.
4. D’Alessandro, S.; Cieplinski, A.; Distefano, T.; & Dittmer, K. (2020) Feasible alternatives to green growth. Nature Sustainability, 3: 329–335
5. Grubb, M., Wieners, C. and Yang, P., 2021. Modeling myths: On DICE and dynamic realism in integrated assessment models of climate change mitigation. *Wiley Interdisciplinary Reviews: Climate Change*, *12*(3), p.e698.
6. Hafner, S., Anger-Kraavi, A., Monasterolo, I. and Jones, A., 2020. Emergence of new economics energy transition models: A review. Ecological Economics, 177, p.106779.
7. Haberl, H., Wiedenhofer, D., Virág, D., Kalt, G., Plank, B., Brockway, P., Fishman, T., Hausknost, D., Krausmann, F., Leon-Gruchalski, B. and Mayer, A., 2020. A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, part II: synthesizing the insights. *Environmental Research Letters*, *15*(6), p.065003.
8. Hardt, L. and O'Neill, D.W., 2017. Ecological macroeconomic models: assessing current developments. *Ecological Economics*, *134*, pp.198-211.
9. Mäler, K.G., Xepapadeas, A. and De Zeeuw, A., 2003. The economics of shallow lakes. *Environmental and resource Economics*, *26*(4), pp.603-624.
10. Petri, F., 2021. Introduction to the Marginal Approach. In *Microeconomics for the Critical Mind* (pp. 153-245). Springer, Cham. Sections 3.3 and 3.4 (pp.159-177).
11. Rezai, A. and Stagl, S., 2016. Ecological Macroeconomics: Introduction and Review. *Ecological Economics*, *121*, pp.181-185.
12. Smith, T.S., Baranowski, M. and Schmid, B., 2021. Intentional degrowth and its unintended consequences: Uneven journeys towards post-growth transformations. *Ecological Economics*, *190*, p.107215.

**Course 5 – Feminist Economics and Degrowth**

**Instructor**:

Corinna Dengler

Assistant Professor, Vienna University of Economics and Business

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**Objectives**

This course will introduce you to feminist economics as a branch in economic heterodoxy, link it to feminist academic engagement with the environment from the late 1970s onwards (materialist ecofeminism, feminist ecological economics, feminist political ecology etc.), and thereby shed light on the feminist roots of degrowth scholarship.

**Structure**

The course has five, two and a half-hour classes. Each class follows a participatory approach that mixes teaching/input with text discussions and group work. The course is based on readings and students are expected to read all texts, highlight important arguments, and note questions and criticism *prior* to the seminar sessions in order to be well prepared for discussions/group work.

The first class will introduce feminist economics as a branch in economic heterodoxy and put a special emphasis on the concept of social provisioning. The second class will dive into materialist ecofeminism and the historical foundations of feminist degrowth and propose, for example, feminist ecological economics and feminist political ecology as important sources for degrowth scholarship. Class 3 will introduce the Feminisms and Degrowth Alliance (FaDA) and will discuss possible feminist economics degrowth research agendas. Class 4 will examine the question of how to organize care in a degrowth society, drawing on debates on caring commons and a care income. Class 5, finally, sets out a feminist degrowth reading of debt that fundamentally rethinks the question of who owes whom, thereby paving the way for feminist degrowth futures.

**PROGRAM OUTLINE**

**Class 1 – Introduction to Feminist Economics**

Power, M., 2004. Social Provisioning as a Starting Point for Feminist Economics. *Feminist Economics*, 10(3), pp.3-19.

Berik, G. and Kongar, E., 2021. The Social Provisioning Approach in Feminist Economics: The Unfolding Research. Chapter 1 in *The Routledge Handbook of Feminist Economics*, edited by Berik, G. and Kongar, E., pp. 3-21. London/New York: Routlege.

**Class 2 – Materialist Ecofeminism & Historical Foundations Feminist Degrowth**

Oksala, J., 2018. Feminism, Capitalism, and Ecology. *Hypatia* 33(2), pp.216-234.

Gregoratti, C. and Raphael, R., 2019. The Historical Roots of a Feminist ‘Degrowth’: Maria Mies’s and Marilyn Waring’s Critiques of Growth. Chapter 5 in *Towards a Political Economy of Degrowth*, edited by Chertkovskaya, E., Paulsson, A., and Barca, S., pp.1-40. London/New York: Rowman & Littlefield.

**Class 3 – Introduction to the Feminisms and Degrowth Alliance (FaDA)**

FaDA, 2020. Collaborative Feminist Degrowth: Pandemic As An Opening For A Care-Full Radical Transformation. https://www.degrowth.info/en/feminisms-and-degrowth- alliance-fada/collective-research-notebook/ [last accessed: December 15th, 2021]

Dengler, C., 2021. Degrowth. Chapter 38 in *The Routledge Handbook of Feminist Economics*, edited by Berik, G. and Kongar, E., pp.369-377. London/New York: Routlege.

**Class 4 – Feminist Degrowth Perspectives on Care**

Dengler, C. and Lang, M., 2021. Commoning Care: Feminist Degrowth Visions for a Socio-Ecological Transformation. *Feminist Economics*. DOI: 10.1080/13545701.2021.1942511.

James, S. and López, N., 2021. An Income to Care for People and Planet, in Our Time is Now: Sex, Race, Class, and Caring for People and Planet, edited by James, S., Oakland: PM Press.

**Class 5 – Rethinking the Question of Who Owes Whom for Feminist Futures**

Salleh, A., 2009. Ecological Debt: Embodied Debt. Chapter 1 in *Eco-Sufficiency and Global Justice: Women Write Political Economy*, edited by Salleh, A., pp. 1-40. London/Melbourne: Pluto Press and Spinifex Press.

**Course 6- Decolonizing Economics**

**Instructor**:

Brototi Roy

Post-doctoral Researcher

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**Objectives**

This will be the final course of the module and will look at the why and how of decolonizing economics, with a focus on degrowth. By the end of this course, you would be able to understand the core debates around the need for decolonizing economics, the different movements and initiatives associated with it, and its engagement with degrowth.

**Structure**

The course has five classes of two and a half-hour each. Each class will involve a mixing of teaching, discussion and group work. To participate in class, you should have read the readings or watched the video carefully in advance, since the discussions and/or group work will stem from it.

The first class will present a brief history of economics, its core assumptions and the problems associated with it. The second class will discuss the early critiques of economics and the older movements associated with changing the way economics is done, from within the field. The third class will examine the need for decolonizing economics and the fourth class will show how it is been carried out in recent years. Finally with the fifth class focusing on how this would look like in the degrowth context.

**PROGRAM OUTLINE**

**Class 1- The dismay over the dismal science**

Davis, J.B., 2004. Economics as a colonial discourse of modernity. *Postcolonialism Meets Economics, London: Routledge*, pp.130-135.

Schiffman, D.A., 2004. Mainstream economics, heterodoxy and academic exclusion: a review essay. *European Journal of political economy*, *20*(4), pp.1079-1095.

**Class 2- The push for plurality in economics**

Lawson, T., 2006. The nature of heterodox economics. *Cambridge journal of economics*, *30*(4), pp.483-505.

Heise, A., 2018. Reclaiming the University: transforming economics as a discipline. *Journal of Philosophical Economics*, *11*(2), pp.37-66.

**Class 3- Doing economics for the people and planet**

Coscieme, L., Sutton, P., Mortensen, L.F., Kubiszewski, I., Costanza, R., Trebeck, K., Pulselli, F.M., Giannetti, B.F. and Fioramonti, L., 2019. Overcoming the myths of mainstream economics to enable a new wellbeing economy. *Sustainability*, *11*(16), p.4374.

**Class 4- Is it only economics? Decolonizing social science research**

Buggs, S.G., Sims, J.P. and Kramer, R., 2020. Rejecting white distraction: a critique of the white logic and white methods in academic publishing. *Ethnic and Racial Studies*, *43*(8), pp.1384-1392.

**Class 5- Reclaiming Economics for future generations**

Ambler, L., Earle, J. And Scott, N. 2022. *Reclaiming economics for future generations*. Manchester University Press. (selected chapters)