SYLLABUS

Name of the course:	Heterodox Environmental Macroeconomics: A Structuralist - Post Keynesian Approach			
Teacher:	Carlos Eduardo F. Young & Kaio Vital da Costa			
University / organisation:	Institute of Economics - Universidade Federal do Rio de Janeiro			
Language of teaching:	English			
ECTS:				
Semester (S1, S2, S3 or S4):	☐☑ S1	☐ S2	☐ S3	☐ S4
Teaching method(s):	☑ Lecture courses		☐ Flipped classroom	
	Other:			
Type(s) of evaluation:	☐ Sitting exam		☑ Written report	
	☐ Oral defence		☐ Group project	
	Other / comments:			
Expected deadline(s) for the evaluation(s)				
Expected date of final results:				
Summary of the content:	Post-Keynesian environmental macroeconomics: (i) the environmentally extended effective demand principle, (ii) the environmental non-neutrality of economic policy, (iii) the principle of non-convergence to sustainability and (iv) the principle of environmentally-constrained growth. Case studies: (1) a Green New Deal proposal for the Brazilian economy; (2) a post-Keynesian analysis of tropical deforestation as an asset accumulation problem. Discussion: environmental exclusion, non-monetary poverty and the inequality. Example: climate change. Structuralist perspective for a low-carbon transition: (i) structural change and sustainability; (ii) the relationship between production, income inequality and greenhouse gas emissions from an environmental SAM perspective; (iii) the role of technological change for a low carbon transition: carbon lock-in, path dependency and procedural rationality; (iv) the role played by international trade and global value chains in the climate change. Case studies: (1) the main drivers of specialization patterns and GHG emissions for the Brazilian economy: structural, level and product mix effects; (2): Income inequality and environmental inequality: the missing link in Brazil's Ecological Transformation Plan; (3): Pollution through pollution in the production structure of the Brazilian economy: an input-output analysis; (4): Greenhouse gas emissions patterns and insertion in global value chains - A comparative			

	study between Brazil and China (2000-2016)
Indicative list of lectures:	1. Effective demand and sustainability 2. Principles for building a post-Keynesian environmental macroeconomics 3. Effective demand and sustainability: an environmentally-constrained demand-led growth model 4. Green New Deal: a policy proposal for Brazil 5. Land use, deforestation and asset accumulation: a post-Keynesian approach to tropical deforestation 6. Non-monetary poverty and environmental exclusion: climate change as a new dimension of inequality 7. Structural change and sustainability 8. Environmental social accounting matrix (SAM) from a structuralist perspective 9. Structural heterogeneity, employment and the green growth paradox: a structuralist perspective from the South 10. Environmental inequality and income inequality 11. Induced innovation, Technological Change and sustainability: a macrosectoral perspective 12. International trade, global value chains and sustainability
Short bibliography:	Alvarenga, M.; Young, C. E. F. Principles for building a post-Keynesian environmental macroeconomics: Revisiting Keynes in times of crises. In: Environment and Ecology in the History of Economic Thought: Reassessing the Legacy of the Classics. Routledge, 2024. p. 107-122. Barcelos, T.; Costa, K. Greenhouse gas emissions patterns and insertion in global value chains: a comparative study between Brazil and China (2000-2016). EconomiA, 2024. Costa, K. The key-sectors for a low-carbon transition in the Brazilian economy. Decarbonization and industrial policy: challenges for Brazil. Policy Brief N. 01/2024. Costa, K.; Costa, L.; Young, C. E. F. Identifying the sources of structural changes of greenhouse emissions in Brazil: An input-output analysis from 2000 to 2020. In: Pasqualino, Roberto. (Org.) **Energy transition in Brazil:** Innovation, opportunities and risks. EEIST Project Report. [S.l.] University of Exeter, 2023. Duchin, F.; Lange, G-M.; Kell, G. Technological change, trade and the environment. Ecological Economics, v. 14, n. 3, p. 185-193, 1995. Fontana, G.; Sawyer, M. Towards post-Keynesian ecological macroeconomics. Ecological Economics, v. 121, p. 186-195, 2016. Huwe, V.; Rehm, M. The ecological crisis and post-Keynesian economics-bridging the gap?. European Journal of Economics and Economic Policies, v. 19, n. 3, p. 397-414, 2022. Mercure, J-F. Complexity Economics for Environmental Governance. Cambridge University Press, 2022.

SYLLABUS

	Naqvi, A.; Stockhammer, E. Directed technological change in a post-Keynesian ecological macromodel. Ecological economics, v. 154, p. 168-188, 2018. Savona, M.; Ciarli, T. Structural changes and sustainability. A selected review of the empirical evidence. Ecological economics, v. 159, p. 244-260, 2019. UNCTAD. Commodity dependence, climate change and the Paris agreement, 2019. Young, C. E. F. Effective demand and "weak" sustainability: a macroeconomic model. Economy and Ecosystems in Change: Analytical and Historical Approaches, Cheltenham, UK and Northampton, MA, USA: Edward Elgar. 1996. Young, C. E. F. Mr. Keynes and the environment: tropical deforestation and the concept of user cost. Revista de Economia Contemporânea, v. 22, 2018.