

SYLLABUS

Name of the course:	Socio-ecological accounting metrics and modelling			
Teacher:	Elena Paglialunga			
University / organisation:	Roma Tre University			
Language of teaching:	English			
ECTS:	3			
Semester (S1, S2, S3 or S4):	<input checked="" type="checkbox"/> S1 Oct-Dec 2024	<input type="checkbox"/> S2	<input type="checkbox"/> S3	<input type="checkbox"/> S4
Teaching method(s):	<input checked="" type="checkbox"/> Lecture courses		<input type="checkbox"/> Flipped classroom	
	Other:			
Type(s) of evaluation:	<input type="checkbox"/> Sitting exam		<input checked="" type="checkbox"/> Written report	
	<input checked="" type="checkbox"/> Oral defence		<input type="checkbox"/> Group project	
	Other / comments:		The expected learning outcomes will be assessed through a final oral exam, which will involve the presentation of an individual assignment.	
Expected deadline(s) for the evaluation(s)	Deadline for submitting the individual assignment (one week before the Oral defence): 06/01/2025 20/01/2025 04/02/2025			
Expected date of final results:	Oral exam: 13/01/2025 (h. 10.30) 27/01/2025 (h. 14.00) 11/02/2025 (h. 14.00)			
Summary of the content:	<ul style="list-style-type: none"> • Integrated approaches between socio-economic systems and the environment. • Economic models for the analysis of the interactions between economic, social, and environmental systems (e.g., ex-post and ex-ante evaluation, environmentally extended input-output) 			

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	<p>models, Integrated Assessment Models (IAMs), Stock-flow consistent (SFC) models).</p> <ul style="list-style-type: none"> • Evaluation of the distributive impacts of climate change and sustainable transition.
<p>Indicative list of lectures⁵:</p>	<p>#1 Oct 2 - Introduction #2 Oct 9 - World Climate Simulations #3 Oct 16 - IAMs #4 Oct 23 - CGE and Environmentally-extended input-output models #5 Nov 4 - Transitions risks (PV industry: policies and impacts) #6 Nov 6 - Transitions risks (Automotive and electric vehicle transition) #7 Nov 11 - IAMs critical perspective #8 Nov 13 - Social policies in the ecological transition #9 Nov 18 - Stock-flow consistent models #10 Nov 20 - Distributive impacts in the ecological transition</p>
<p>Short bibliography:</p>	<p>Costantini, V., Sforza, G., Zoli, M. (2016). Interpreting bargaining strategies of developing countries in climate negotiations. A quantitative approach. <i>Ecological Economics</i>, 121: 128-139.</p> <p>Dell, M., Jones, B. F., Olken, B. A. (2014). What Do We Learn from the Weather? The New Climate-Economy Literature. <i>Journal of Economic Literature</i>, 52 (3): 740-98.</p> <p>Emmerling, J., Andreoni, P., Charalampidis, I. <i>et al.</i> (2024). A multimodel assessment of inequality and climate change. <i>Nature Climate Change</i>.</p> <p>Markandya, A., Costantini, V., Pagliarunga, E., Sforza, G. (2017). Global and Regional Economic Damages from Climate Change. In <i>Oxford Research Encyclopaedia in Environmental Economics</i>, Oxford University Press, New York.</p> <p>Weitzman, M. L. (2011). Fat-tailed uncertainty in the economics of catastrophic climate change. <i>Review of Environmental Economics and Policy</i>, 5 (2): 275-292.</p>