

SYLLABUS

Name of the course:	Policy analysis for the ecological transition - LAB			
Teacher:	Roberto Mezzalama			
University / organisation:	University of Turin			
Language of teaching:	English			
ECTS:	6			
Semester (S1, S2, S3 or S4):	<input type="checkbox"/> S1	<input checked="" type="checkbox"/> S2	<input type="checkbox"/> S3	<input type="checkbox"/> S4
Teaching method(s):	<input checked="" type="checkbox"/> Lecture courses		<input checked="" type="checkbox"/> Flipped classroom	
	Other: _____			
Type(s) of evaluation:	<input type="checkbox"/> Sitting exam		<input type="checkbox"/> Written report	
	<input type="checkbox"/> Oral defence		<input checked="" type="checkbox"/> Group project	
	Other / comments: _____			
Expected deadline(s) for the evaluation(s)	June July 2025			
Expected date of final results:	June July 2025			
Summary of the content:	<p>The Laboratory is designed to put the students in front of real-life case-studies that the teacher and his colleagues have addressed or are addressing to support the activities of governments, corporate and financial clients in navigating the main themes of the ecological transition.</p> <p>The focus of the activities will be on defining practical approaches to address the issues that environmental managers and decision makers are confronted with every day, and in doing so to acquire familiarity with policies, standards, datasets and stakeholder expectations.</p> <p>Expected learning outcomes</p> <p>Familiarity with the most important requirements of the EU Taxonomy of Green Investments, the Non-Financial Reporting Directive (NFRD) and the Task Force for Climate Related Financial Disclosures (TCFD). These requirements are increasingly shaping the activities of companies and the financial system and pose a series of new challenges to the practitioners in the environmental management field, as they need to deal with increasingly complex methodologies, vast datasets, and inherent uncertainties.</p>			
Indicative list of lectures¹:	The structure of the laboratory is based on four main blocks: an initial introduction to the overall themes, and then a more in-depth analysis of three aspects. These three modules are organized in two – four lectures: in the first the teacher provides the key concepts, the			

¹ Provide, if already possible, an indicative list of topics you will cover in each lecture.

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	<p>key references and methodologies and describes the case studies that are assigned to groups of student (1h). Then the groups of students should organized themselves and have an opportunity to discuss the assignment with the teacher. In the second lecture the students present their case studies and there is a group discussion. The case studies on climate mitigation are more complex and therefore two interim presentations and discussions are held before the final presentation.</p> <p>Lecture 1: Introduction - the need and urgency of the ecological transition</p> <ul style="list-style-type: none"> • The current poly-crisis: climate – biodiversity – resource consumption – inequality • Introduction to the earth climate system • Drivers of climate change • Effects of climate change • Key policies and agreements on climate change • Key concepts in biodiversity: species, ecosystems, ecological networks • Drivers for biodiversity degradation • Key policies and agreements on biodiversity conservation • Resource consumption and waste generation • Key policies and agreements on resource consumption <p>Lecture 2: Management and conservation of biodiversity</p> <ul style="list-style-type: none"> • Types of biodiversity (genes, species, habitats, ecosystems, biomes) • Measures and indicators of biodiversity • Biodiversity hotspots • Ecosystem services • Drivers of biodiversity degradation (pollution, land transformation, direct use, etc.) • Strategies for biodiversity conservation • Description of the case studies <p>Lecture 3: Presentation and discussion of the case studies on biodiversity</p> <p>Lecture 4: Physical climate risks and adaptation to climate change</p> <ul style="list-style-type: none"> • Introduction to climate hazards • Climate scenarios, data and indicators • Standards for climate risk assessment • Examples of climate risk assessment <p>Lecture 5: Presentation and discussion of the case studies on climate adaptation</p> <p>Lecture 6: Climate change mitigation and management of GHG</p> <ul style="list-style-type: none"> • Sectors contributing to GHG emissions • Global agreements on climate mitigation • EU policies for climate mitigation • Role of cities in climate mitigation <p>Lecture 7-8-9: Interim presentations and final discussion of the case studies for climate change mitigation. The focus of the case studies is the in-depth analysis of the Horizon 2020 Mission for Smart and Resilient Cities aimed at promoting accelerated climate mitigation actions in 100 European Cities and the comparison of the Climate plans of three participant cities (Torino, Milano and Bologna)</p>
<p>Short bibliography:</p>	<p>Several online resources are recommended for the completion of the case studies, here some of the most relevant:</p> <ul style="list-style-type: none"> • Convention on biological diversity

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- [Integrated Biodiversity Assessment Tool](#)
- [Global Biodiversity Information Facility](#)
- [IUCN Red List of Threatened Species](#)
- [IUCN Red List of Ecosystems](#)
- [EU Nature and biodiversity site](#)
- [EU Adaptation page](#)
- [Climate Adapt Portal](#)
- [IPCC Climate Impact and Adaptation Report](#)
- [UN Climate Adaptation](#)
- [Climate Adapt EU](#)
- [Copernicus Climate Change Services](#)
- [IPCC Mitigation Report](#)
- [EU Council Climate](#)
- [EU Commission Climate Action](#)
- [Global covenant of Mayors](#)
- [EU Covenant of Mayors](#)
- [JRC Covenant of Mayors](#)
- [JRC GHG dataset for 6200 cities](#)
- [EU Mission Climate](#)
- [NetZeroCities](#)
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