



Phd in Management

Natural capital, climate change and businesses in the XXI century

Course Description

The course will present an overview of the impact of human activities on natural capital, a description of how businesses and economic development depend on natural capital and the eco-systemic services it provides. A description of the Planetary Boundaries concept will introduce an integrated approach to the solution of socio-economic concern of the XXI century. Through a brief review of the ecological economics argument, the course will provide a framework to understand whether something is missing in the standard economic analysis and how that may be integrated in economic reporting, at government or business level. A deep dive into climate change will show how the international policy framework and global financial institutions are part of the solution. Finally a description of the instruments developed so far to address natural capital and climate change issues will be presented.

Main contents

Lesson 1

- Definition of Natural Capital, methods to measure its value and the impacts of human activities on it (ecological footprint, input output matrixes, LCA...);
- Businesses and natural capital: the Natural Capital Coalition, the Natural Capital Finance Alliance, and the Integrated Reporting Framework;
- The planetary boundaries and its interdisciplinary approach to economic and social issues within the limits;
- Critics to the standard economics argument: limits to growth, the steady state economics, prosperity measure
- Recent evolution; the Non Financial Directive and the EU's High Level Expert Group on Sustainable Finance

Lesson 2

- Basic understanding of climate science, climate change mitigation and adaptation;
- Carbon accounting: description, scopes and double counting
- Review of the climate policy framework: Rio 1992, IPCC, The UNFCCC and the Kyoto Protocol, the Paris Agreement

- Climate finance: the carbon market, Green bonds, subsidized loans;
- Climate related financial risk: the TCFD
- A focus on the EU Action Plan on sustainable development

Suggested readings:

- Brown L., *Full World, Empty dishes*. Norton & Company 2012
- Costanza et al. *The value of the world's ecosystem services and natural capital*. Nature 387:253-260 1997
- Daly, Herman E.; Farley, J., *Ecological Economics: Principles and Applications (2nd ed.)*. Washington, DC: Island Press. 2010
- Jackson T., *Prosperity without growth*, Routledge. 2017
- Meadows, Meadow Randers, *Limits to Growth*. Chelsea Green Publishing 2002
- Rockström, Wijckman, *Bankrupting Nature*. Routledge 2012
- TEEB. *The economics of Ecosystems and Biodiversity*. Ecological and Economic Foundations - Pushpam Kumar Earthscan
- Sukhdev Pavan, Corporation 2020, Island Press 2020

Web documents:

- Carbon tracker initiative. Unburnable carbon - free download carbontracker.org
- Climate Change 2014 Synthesis Report - Ipcc - Free download ipcc.ch
- UNEP Finance Initiative. Demistifying private climate finance - Free download unepfi.org
- United Nations. The Paris Agreement – 2016
- HLEG Financing a sustainable European economy – free download ec.europa.eu
- Final TCFD recommendations report – free download fsb-tcfd.org

Lecturer:

Giorgio Capurri is environmental management representative of UniCredit SpA. He holds a degree in Economics and Banking at the University of Siena and a Master in Natural Resources Management at the University Bicocca in Milano. His career spans from capital markets and interest rate derivative trading to environmental management and sustainability issues. He has served as UNEP FI Climate Change Advisory Group member and he is currently member of the Natural Capital Finance Alliance Steering Committee. For the past ten years he has regularly been guest lecturer in different programs at the Università Cattolica del Sacro Cuore in Milano on green management and sustainable business (Master in Corporate Communication / Laurea Magistrale in Economia / International Curriculum). He has also been guest speaker at: Università Commerciale Luigi Bocconi, Università degli Studi di Milano - Bicocca, Politecnico di Milano, Università Federico II. He designed and delivered a course on climate finance for business professionals on behalf of Adecco. Since 2018 is contract professor at the Università Cattolica del Sacro Cuore in Milano.

Course Schedule:

Date	Theory	Teacher
July 4, 2pm-6pm	Lesson 1	Giorgio Capurri
July 5, 9am-13am	Lesson 2	Giorgio Capurri