UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Green Economy - 1

2425-1-F7701M131-F7701M131-2-T1

Learning objectives

The module aims to transfer knowledge of the main drivers of EU environmental policy to students, which will lead to a significant change in the EU production structure. The two main guidelines on which the course is developed concern the economic-industrial analysis of sustainable development and fight against climate change policies and circular economy policies and the efficient use of natural resources. With reference to sustainability policies, the course aims to provide students with the tools to understand the main policies for containing climate-changing gas emissions by analyzing economic and industrial policy tools. The aim of the module is to understand the benefits of the policies adopted, the risks in terms of industrial competitiveness, the manufacturing sectors and the opportunities for industrial growth deriving from the development of the green economy sectors. With reference to the circular economy objectives, the course focuses on the main tools adopted for the efficient use of natural resources and the effects of these policies on the productive and industrial fabric. The course also provides elements of analysis of energy markets in relation to the objectives of reducing fossil fuels, the incremental use of renewable energy resources and energy efficiency. Finally, the course provides market analysis tools for waste management as well as strategies for the reduction, recycling and reuse of waste in a circular economy perspective.

Knowledge and Understanding
In-depth knowledge of the main drivers of EU environmental policy and their impact on the production structure. The course provides an understanding of sustainable development policies, strategies for combating climate change, the circular economy, and the efficient use of natural resources.

Applying Knowledge and Understanding
Applying economic and industrial analysis tools to assess environmental policies. Students will be able to examine the effects of greenhouse gas emission reduction measures, analyze energy and waste management markets, and evaluate the impact of efficient resource use on businesses and industrial sectors.

Making Judgements
Critically assess the benefits and risks of environmental policies, with a particular focus on industrial competitiveness and the opportunities offered by the green economy. Students will be able to make informed

judgments on economic and industrial policy tools for sustainability and the effectiveness of circular economy strategies.

Communication Skills
Develop communication skills to clearly and effectively present the results of environmental policy analyses through group work. The goal is to discuss and argue the economic implications of sustainability and circular economy policies.

Learning Skills
Develop methodological skills necessary to independently explore topics related to the green economy, energy market analysis, and natural resource management.

Contents

The first part of the course aims to connect the industrial economic analysis tools to the environmental economic analysis tools. To better understand the environmental economic analysis tools, it is important that the student addresses the framework and the structure of the objectives of the European Green New Deal with a precise focus of the main components of the policy guidelines for reducing emissions (ETS Effort Sharing) to the 2030 and 2050. The third part of the course provides the elements of economic analysis for the management of environmental policies from a theoretical economic point of view. The fourth part of the course focuses on the new lines of development of the energy markets within the new decarbonisation processes. The fifth part considers the effects on the competitiveness of the production system and the opportunities for industrial development

Detailed program

1. Environmental economics, sustainable development goals and European scenarios by 2050;
2. Economic growth, natural resources, demographic trends and sustainable development;
3. Functioning of markets and the causes of their failure
4. Public intervention and causes of its failure
5. Cost-benefit analysis and uncertainty
6. European policies for sustainability 2030 and 2050 and the 2015 Paris agreements
7. European policies for the circular economy and optimal management of resources
8. Fossil fuel market scenario
9. The European ETS mechanism. The new directive and the 2030 objectives
10. Ecological taxes
11. Carbon tax and the use of taxation for environmental protection
12. Use of the market and standards to protect the environment
13. Command and control mechanisms, setting standards
14. Market mechanisms. Comparative evaluation of market instruments.
15. The Clean Energy Package and the process of liberalization of the electricity markets
16. Renewable electricity sources: incentive mechanisms and technological prospects. Energy efficiency policies
17. The liberalization of the natural gas market.
18. Waste management: collection and treatment and disposal phases
19. Policies to prevent waste and optimal use of resources
20. The industrial dimension of the Green Economy sectors

Prerequisites

Microeconomics and business economics

Teaching methods

The course includes classroom teaching (lessons and seminars) and interactive teaching through group work and presentations:

- Standard: 75%
- Interactive: 25%

Assessment methods

The written exam accounts for 67% of the final grade, while the group project work makes up the remaining 33%.

Textbooks and Reading Materials

Environmental economics ISSN 9781307873924.

Other material will be provided by the teacher

Semester

II semester

Teaching language

Italian

Sustainable Development Goals

AFFORDABLE AND CLEAN ENERGY | CLIMATE ACTION