



Visiting Professor Program Academic Year 2023/2024

TEACHING COMMITMENT: 42 hours

COURSE TITLE

Environmental Management Systems

TEACHING PERIOD

1st term

SCIENTIFIC AREA

Commodity Science

LANGUAGE USED TO TEACH

English

COURSE SUMMARY

Nowadays, the environment represents a key factor for companies' competitiveness, independently on their aim, dimension and business sector. The environment, in fact, provides companies with natural resources and materials that feed the production system as inputs to be converted in products or services (output). In doing so, processes also produce unwanted outputs in terms of environmental impacts: air emissions, waste, etc. Minimizing these impacts not only contributes to improve the environmental conditions, but also helps companies in improving their efficiency and profitability.

In order to deal with the environmental variables in the best possible way, companies may rely on international "tools" that can give conceptual frameworks for considering and managing the production processes.

In particular, International standards guide companies in identifying critical processes so that they can implement an Environmental Management System (EMS) as a tool for checking and considering all the different company's units thanks to the adoption of a systemic approach.

International Standards for the environment, as ISO 14001 and the European Regulation EMAS – Eco-Management and Audit Scheme - are helpful for assessing strategies that take into consideration the new development paradigm of the circular economy, which focus its attention particularly on reduction of material and energy resources.

LEARNING OBJECTIVES

At the end of the course, the student will be able in auditing and analysing the relationship between companies' processes and the environment and in the knowledge and the correct use of voluntary and mandatory normative instruments.

KNOWLEDGE AND UNDERSTANDING SKILLS

Know the main phenomena characterizing the biosphere

Know the main environmental impacts and their abatement technologies

Know the main aspects related to energy production and management, with particular reference to renewable sources

Know the main product and process environmental management tools that can be used by companies

APPLYING KNOWLEDGE AND UNDERSTANDING

To understand and recognize the main elements on the relationship between companies and the environment and the methodologies and tools, including technological ones, to manage them

Choose, according to objectives and needs, which methodologies and tools are the most suitable to be used

To contribute to the planning of management and production

TUTORSHIP ACTIVITIES

N/A

LAB ACTIVITIES

N/A

OTHER ACTIVITIES BESIDES THE COURSE

N/A

VISITING PROFESSOR PROFILE

Highly skilled in issues related to the interactions among manufacturing companies and the environment, proved by scientific publications.

Evidence of participation to researches in the field of management tools useful to identify, monitor and improve environmental performance of economic organizations in term of prevention or reduction of environmental pollution. Good knowledge of European environmental laws and their impacts on industries.

Knowledge and practice of dynamic modeling tools.

Previous teaching experience in University.

CONTACT REFERENT

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