UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Further Linguistic Skills

2526-2-FSM01Q038

Aims

Aims
The main goal of the given course is to improve students' communication and linguistic skills through structured discussions on topics of contemporary importance, fostering critical thinking and effective expression. Students will grasp the basic knowledge about environmental safety, sustainability, circularity, life cycle assessment, global warming, clean and affordable energy, and critical raw materials. Healthy interactions and dynamic engagements will help students in enhancing the language proficiency and presentation skills.
Knowledge and understanding
At the end of the course, the students will be able to apply relevant vocabulary, communicate effectively and discuss the core concepts of sustainability, circularity, life cycle assessment, global warming, clean and affordable energy and critical raw materials.
Applying knowledge and understanding
After the course, students will be able to present the main aspects related to sustainability, pillars of the circular economy, input and output of the life cycle assessment, including evaluation of the methods and comparison with real examples. Moreover, the students will be able discuss the main causes and effects of man-made global warming and will evaluate the risks associated and the possible adaptation to climate change. The students will be able to debate, argue, and form opinions about the diverse types of energies and their production, identifying pollution of renewable sources as well as critical raw materials and potential substitutes for them.
Making judgments
The course will help the students to master selecting appropriate vocabulary and terms for the topics covered, while demonstrating understanding of the core principles underlying sustainability, circularity, life cycle assessment, global warming, clean and affordable energy, and critical raw materials.
Communication skills
At the end of this activity, the student will be able to orally and with proper language skills present scientific topics related to sustainability, circularity, life cycle assessment, global warming, clean and affordable energy and critical raw materials.
Learning skills
Upon completion of the course, the student can:
Constantly update themselves on the communication skills regarding the discussed research topics. Critically

evaluate information and data and finally support decision-making and problem-solving. Develop a multidisciplinary approach to the study and understanding of these topics.
Effectively continue their learning path both in academic and professional settings, particularly in the field of sustainability, circular economy, global warming, renewable energies and critical raw materials.

Contents

Syllabus course: Further Linguistic Skills (24 hours)
2-hour: Sustainability: definition, implications, old and new economy.
2-hour: Concept of circularity.
4-hour: Life Cycle Assessment (LCA)t: how to make an LCA, identify the input and the output. Examples.
4-hour: Global Warming: Intergovernmental Panel on Climate Change (IPCC) report 2013 vs 2022.
4-hour: Reduction of greenhouse gas emissions.
4-hour: Clean energy and sustainable fuels.
4-hour: Critical raw materials and their substitutions.

Detailed program

Sustainability: definition, implications, old and new economy (2 h). Concept of circularity and circular economy will also be introduced and discussed (2h). The concept of life cycle assessment (LCA) will be introduced (2 h). Moreover, the way to make the LCA, identifying the input and output, will be presented. A few case studies will be discussed (2 h). Global warming concept and numbers will be introduced, referring to the Intergovernmental Panel on Climate Change (IPCC) report 2013 (2 h). The IPCC report of 2022 will also be discussed, compared with the IPCC report of 2013 (2 h). Clean energy and clean fuels will be introduced and discussed (4 h). Introduction to critical raw materials and their substitutions within the frame of circularity and materials science will be introduced and discussed (4 h).

Prerequisites

No prerequisites are needed.

Teaching form

Inperson Lectures

Textbook and teaching resource

The teacher's slides and discussion during class

Semester

Second semester (entire semester)

Assessment method

At the course's end, students have to deliver a presentation on a related topic. No intermediate tests will be conducted, however class participation will be highly encouraged. Evaluation covers presentation quality, communication skills, Q&A responses, and ability to discuss the knowledge acquired during the course.

Office hours

On appointment contacting the lecturer via email.

Sustainable Development Goals

AFFORDABLE AND CLEAN ENERGY | SUSTAINABLE CITIES AND COMMUNITIES | RESPONSIBLE CONSUMPTION AND PRODUCTION | CLIMATE ACTION | LIFE ON LAND