UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Realising the Green Transition

2526-102R-20

Title

Realising the Green Transition

Teacher

Prof. Heiko Lange
Prof. Elena Collina

Language

English

Short description

The short, intense course will generate awareness regarding opportunities and challenges correlated to the process of implementing sustainability in industries and societies, i.e., fostering the postulated ‘green transition’. The last decade has generated a huge amount of knowledge regarding sustainable use of resources, energies and processing. Implementation of this knowledge requires an awareness and common fundamental knowledge of associated theo-retical and practical aspects across various scientific areas and fields, requiring a close networking between natural sciences, sociology, economy and law in shortest time frames. The following points will be exemplary covered:

• Greenness vs. sustainability vs. economic viability
• Intercept points of biorefinery concepts with current industrial production schemes.
• Modern energy harvesting and storage options.
• Business models connected to exploiting renewable resources.
• Concept of carbon footprint and methods for quantification.

Tools for monitoring impact of exploitation of renewable and sustainable re-sources and energies on current business models.

The topics will be treated also in form of case studies: short introduction into the case by the lecturer, followed by elaboration of the cases in teamwork, presentation/discussion of results.

Target audience

PhD students of all disciplines directly or indirectly concerned with the necessary ecologic change of modern societies.

The language and the level of details will be tailored to the specific needs of the actual audience that will be evaluated at the beginning of the course; eventual knowledge differences will be accounted for by immediate interventions by the lecturer and in form of background material made available via the e-learning platform prior to the lectures.

Maximum number of participans

No limit.

Assessment method

Students will have to sustain a brief colloquium with the lecturers at the end of the course, which serves to assure that the covered concepts and approaches were understood correctly as such and in connection with the guiding topic of the course.

CFU / Hours

1 CFU (8 hours) of frontal lectures mixed with case studies and team work sessions.

Teaching period and mode

19/05/26 2 pm - 6 pm U6-25
21/05/26 2 pm - 6 pm U6-41

course registration on “Segreterie online”: from 20/04/2026 to 13/05/2026

Sustainable Development Goals

QUALITY EDUCATION | AFFORDABLE AND CLEAN ENERGY | INDUSTRY, INNOVATION AND INFRASTRUCTURE | SUSTAINABLE CITIES AND COMMUNITIES | RESPONSIBLE CONSUMPTION AND PRODUCTION