UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Tools for monitoring sustainable development

2425-BbetweenSDG-05-02

Module description

The 17 SDGs each have different goals for a total of 169 targets. How to measure such complexity? The module aims to present the logic underlying the monitoring and measurement of complex and multidimensional phenomena, highlighting the challenges of data collection, their harmonization and aggregation methods. The goal is to show, through examples and comparisons, the necessary steps to answer the basic questions addressed by the 17 SDGs (Sustainable Development Goals): "Which countries are likely to achieve a certain goal or which are currently closest to the goal? Which targets are most easily achievable for the goal? For which countries can no answer be given?" Through the analysis of basic data and simple composite indicators, their time trend and comparison between countries, the basic tools will be provided to assess sustainable development relative to specific goals.

Learning goals

Knowledge and understanding.
The module will provide knowledge and understanding of the basic data used and the process for obtaining composite indicators.

Ability to apply knowledge and understanding.
At the end of the class, students will have developed the ability to identify appropriate and available data for most countries for several years, the ability to recognize the type of data, and the ability to apply basic information for their harmonious aggregation. The module will provide the skills to distinguish between raw data, index, and composite indicator and will allow the development of sensitivity towards quantitative evaluation in the field of sustainability.

General goal

Understanding of different types of basic data and the process of obtaining composite indicators useful for monitoring goals.

Specific skills and competences

- Identify appropriate and available data for most countries over several years;
- Recognize the type of data;
- Aggregate basic data into composite indicators.

Sustainable Development Goals of the 2030 UN Agenda

The proposed module is consistent with some of the Goals of the 2030 Agenda: Goal 4 - Quality Education, and Goal 17 -Strengthening means of implementation and renewing the global partnership for sustainable development.
Goal 4.1: Provide "free, equitable and quality primary and secondary education that leads to relevant and effective learning outcomes."
Goal 17.18 "Increase the availability of high-quality, timely, and reliable disaggregated data by income, gender, age, ethnicity, migration status, disability, geographic location and other relevant characteristics in national contexts."
17.19 "Develop sustainable development progress measurements that integrate Gross Domestic Product and support the development of statistical capacities..."

Breakdown of meetings

The Data
2 hours: Theoretical framework for data selection
2 hours: From raw data to indices (cleaning of units of measurement and order of magnitude)
2 hours: Missing data

From indices to composite indicators
2 hours: Which way do the indices go? Weighting or not weighting the indices?
2 hours: Creating a ranking
2 hours: Beyond the ranking. An example of cardinal methods

Number of participants

The number of participants is not limited. The module is delivered in E-learning format (through recordings, handouts, exercises, etc.) and is available 24 hours a day.

Language used in meetings

Italian

Delivery period of the module

November-December 2023

Methods of assessing the outcomes of the learning process

Utilization of the materials provided and closed-question test.

Department of affiliation of the teacher

Statistics & Quantitative Methods

Sustainable Development Goals

QUALITY EDUCATION | PARTNERSHIPS FOR THE GOALS