UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Resources Economics and Management

2526-1-F7603Q003-F7603Q00302

Aims

This module is part of the course Renewable and non-renewable sources and their economics, an interdisciplinary program that integrates geology and economic principles to analyse the optimal use of resources.
The module provides students with a comprehensive and contemporary analysis of the major areas of natural resource and environmental economics, balancing theory, applications, and examples to provide a rigorous grounding in the subject.

Students are invited to consult the syllabus of the entire course for details regarding learning- and skill-related objectives.

Contents

• Fundamental economics concepts for resource economics.
• Static models of natural resource use.
• Dynamic models of natural resource use.

Detailed program

Approaching the study of natural resource economics
• economic concepts for examining natural resource use and pricing;
• sustainability and natural resource scarcity;
• the use of static or steady state models to examine natural resource use;
• the valuation and use of land and water;
• the economics and regulation of the fishery: an introduction;

• an introduction to environmental resources: externalities and pollution;
• pollution policy in practice.

Natural resource use in an intertemporal setting
• non-renewable resource use: the Theory of Depletion;
• non-renewable natural resource use: departures from the competitive case and from fixed stock size;
• forest use;
• dynamic models of the fishery;
• the economics of sustainability.

Prerequisites

• Basic principles of Mathematics.
• Basic principles of analytical methods.

Teaching form

6 CFUs of theoretical lessons in the classroom (48 hours):
• 16 two-hour lectures, in person, Delivered Didactics;
• 8 two-hour lectures, online, reading and discussing scientific articles, case studies, and possible integration of guest lectures by experts in the field, Mixed Didactics, Seminar.

Attendance to lectures and interactive exercises is highly recommended.

Textbook and teaching resource

• John M. Hartwick and Nancy D. Olewiler, The Economics of Natural Resource Use, Harper & Row, 2nd edition 1998.
• Lecture slides and notes.
• Additional scientific articles provided on the e-learning platform.

Semester

II semester (March - June)

Assessment method

The final examination consists of an oral exam at the end of the course. The exam will evaluate the student's ability to discuss various topics covered in the module, seen in the complexity of the entire course, with an emphasis on theoretical understanding, interdisciplinary connections, and critical evaluation of economics

principles for the analysis and protection of the environment.

The final score will be between 18/30 and 30/30 *cum laude*, based on the overall assessment considering the following criteria:
(1) knowledge and understanding;
(2) ability to connect different concepts;
(3) autonomy of analysis and judgment;
(4) ability to correctly use scientific language.

Office hours

Always, after scheduling an appointment *via* phone or e-mail.

Sustainable Development Goals

QUALITY EDUCATION | CLEAN WATER AND SANITATION | AFFORDABLE AND CLEAN ENERGY | DECENT WORK AND ECONOMIC GROWTH | RESPONSIBLE CONSUMPTION AND PRODUCTION | LIFE BELOW WATER | LIFE ON LAND