UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Geoenergy and Geomechanics

2324-1-124R030

Title

**Geoenergy and Geomechanics
**

Teacher(s)

Riccardo Castellanza ; Giovanni Crosta

Language

English

Short description

This course aims to:
(i) provide introductory and advanced knowledge relative to deep and shallow geothermal systems and energy, and reservoir behaviour;
(ii) describe advanced testing for physical and geomechanical characterization focused on reservoir rocks;
(iii) describe problems concerning the underground storage of gases and fluids.
The course is subdivided in 5 parts:
(1) Shallow geothermal systems, thermal potential of shallow aquifers, conduction and advection;

(2) Geothermal systems, description, reservoir fluid characterization, convection cells in porous media;
(3) Physical mechanical properties and testing methods;
(4) Definitions of problems concerning the storage of CO2, methane and other fluids at depth;
(5) Case studies of heat flow transport

Evaluation: YES

CFU / Hours

2 CFU - 16 Hours (lecture)

Teaching period

I Semester

Sustainable Development Goals