



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### **Advanced Experimental Testing and Monitoring on Geomaterials (Laboratory and In Situ) (Curricular - Geology)**

2223-94R-SCGA23

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#### **Title**

Advanced experimental testing and monitoring on geomaterials

#### **Teacher(s)**

Riccardo Castellanza

#### **Language**

English

#### **Short description**

The aims of this course are: i) provide a specific knowledge and training on advanced experimental testing method for geomaterials (both in laboratory and in situ); ii) provide a specific background of recent monitoring methods for geo-structures or protective defense. The course is focused on the definition of geo-mechanical, hydrogeological and chemical behaviour of soils and rocks. The specific requests of the PhD students attending the course will be considered.

The course is subdivided in 4 parts:

- 1) experimental apparatus, sensors, datalogger and controller unit for testing geomaterials.
- 2) advanced laboratory tests on soil and rocks for idro-chemo-mechanical characterization
- 3) in situ testing overview of recent and innovative devices
- 4) monitoring of the main physical variables with the most recent devices

Evaluation: YES

### **CFU / Hours**

2 CFU - 20 Hours (8h lecture - 12h laboratory training)

### **Teaching period**

I semester

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