



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## **COURSE SYLLABUS**

### **Spatial Variability of Environmental Characteristics and Mapping Methodologies (Curricular - Environment)**

2122-94R-SCGA26

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#### **Title**

**Spatial variability of environmental variables and mapping methodologies**

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

Roberto Comolli ; Chiara Ferré

#### **Language**

English/Italian

#### **Short description**

#### **Aims**

The aim of the course is to provide:

- knowledge on traditional and innovative mapping methods;
- practical skills in mapping of environmental variables;

- ability to interpret results.

### **Contents**

- Spatial variability of environmental variables: causes (anthropic and natural) and effects;
- introduction to spatial data processing: traditional and innovative methods of assessing and mapping environmental variability;
- basic concepts of univariate and multivariate geostatistics and geostatistical data fusion techniques; computer session on variogram modelling and production of thematic maps; case studies on spatial variability assessment in precision farming;
- geomorphometric variables for production of thematic maps; case studies on soil thickness and soilscape.

### **Methods**

Lectures, presentation of case studies and practical activities (PC sessions using specific software).

### **Expected outcome**

Application of the investigated mapping techniques in research projects.

Evaluation: YES - through practical activities.

### **CFU / Hours**

2 CFU - 16 Hours (Lecture)

### **Teaching period**

II semester

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