

# Summer School in Geomorphological Mapping



University of Camerino  
School of Sciences and Technology  
Geology Division



ISPRA  
Istituto Superiore per la Protezione  
e la Ricerca Ambientale



## Summer School in “Geomorphological Mapping”

**Camerino, 2-8 September 2024**

**School of Science and Technology**

**Geology Division**

**University of Camerino ITALY**

### Objectives

The course is aimed at the geomorphological mapping in tectonically active areas.

Central Italy, where the University of Camerino is located, was affected in 2016-2017 by a strong seismic crisis. More than 7000 geomorphological features, mainly constituted by surface faulting and activation of large landslides and deep-seated gravitational slope deformations have been identified.

After a few days of on-site lessons, participants will be guided to these mainly mountainous areas, where they will create a specific geomorphological map with an application focus.

### Topics

#### *Basic and Applied Geomorphology*

General principles of geomorphology. Morphogenetic agents and processes. Erosion, accumulation, polygenic and geomorphological convergence phenomena. Basic geomorphological mapping. State of activity of landforms and processes. Classification criteria in geomorphological mapping: morphographic; morphometrics; morphogenetics; morphodynamics; morphochronological.

#### *Geomorphological survey: methodologies and technique*

Main preparation activities for field survey: cartographic. Archive and bibliographic research; laboratory analysis of remotely sensed images (aerial photos, LiDAR, satellite or terrestrial shots, ancient maps, etc.), radar interferometry. Field survey and data collection. Field geognostic investigations, sampling and laboratory analyses. The instrumental survey for the exact geometric definition of landforms, for the evaluation of their morphoevolution and for monitoring activities. The collection and computerization of field data, their processing in a GIS environment, GPS positioning, creation of geomorphological databases and use of DTMs.

#### *Logistics*

Possibility of using university facilities for food and accommodation

#### Contacts

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