

## COURSE DETAIL

### MOUNTAIN GEOMORPHOLOGY

**Country**

Italy

**Host Institution**

University of Bologna

**Program(s)**

University of Bologna

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Geography

**UCEAP Course Number**

180

**UCEAP Course Suffix****UCEAP Official Title**

MOUNTAIN GEOMORPHOLOGY

**UCEAP Transcript Title**

MNTN GEOMRPHLGY

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## **Course Description**

This course is part of the Laurea Magistrale program. The course is intended for advanced level students only. Enrollment is by consent of the instructor. This course provides knowledge on process and Quaternary geomorphology, with a focus on mountain environments. The course examines aspects of sediment supply and sediment transfer, including hillslope-channel interactions, the role of hydro-meteorological forcing on the intensity and typology geomorphic transport processes. It also deals with sediment management in the Anthropocene, including the impacts of in-channel engineering infrastructures and landcover changes. Sediment yield and sediment storage in natural and regulated systems are also discussed, as well as the role of Pleistocene glaciations on the present spatial organization of geomorphic processes and sediment fluxes. In this context, the course further examines dating landforms and constraining denudation rates at millennial time scales. The lab-based component introduces students to expert-based mapping of sediment sources and channel changes, as well as glacial and periglacial landforms on remotely-sensed images to build georeferenced databases for geo-hazard assessment. The field-based component illustrates techniques for field-based mapping, characterizing channel bed texture, as well as monitoring water and sediment fluxes. The discussion is fostered by a literature review on selected topics that vary from year to year. Finally, analysis of data collected in the field is performed by groups of students, in preparation of a short technical report.

### **Language(s) of Instruction**

English

### **Host Institution Course Number**

88452

### **Host Institution Course Title**

MOUNTAIN GEOMORPHOLOGY

### **Host Institution Campus**

BOLOGNA

**Host Institution Faculty****Host Institution Degree**

LM in GEOLOGY AND TERRITORY

**Host Institution Department**

Biological, Geological, and Environmental Sciences

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