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-meteorogical 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 Course Details
https://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2022/446813

Host Institution Campus BOLOGNA
Host Institution Faculty
Host Institution Degree LM in GEOLOGY AND TERRITORY
Host Institution Department Biological, Geological, and Environmental Sciences
Course Last Reviewed 2022-2023

Print