



**UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA**

## **SYLLABUS DEL CORSO**

### **Geografia Fisica**

2021-1-E3401Q040

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#### **Aims**

The course aims to transfer to students a series of knowledge and terms to understand and describe the terrestrial landscape.

The relationships between the different aspects concerning landscape formation will be explained, highlighting the anthropic influence on the most common forms of the natural landscape.

#### **Contents**

**The planet Earth**

**Atmosphere and climate**

**Hydrosphere**

**The shapes of the landscape**

**Overview of pedology**

**Man agent modifier of the landscape and climate**

**Field work in Val Ventina (SO), Vedretta della Ventina glacier.**

#### **Detailed program**

**The planet Earth**

**The Earth in the solar system**

**The Earth seen from space**

**The representation of the Earth**

**The scale factor in geology**

**The "deep time"**

**The table of geological times**

**Atmosphere and climate**

**The composition and thermal subdivision of the atmosphere**

**Climate elements: solar radiation, temperature, pressure, atmospheric circulation, humidity and precipitation**

**Classification of clouds**

**Classifications of climates**

**Extreme meteorological events in the Mediterranean area**

**Hydrosphere**

**Preliminary notions of regional geography**

**The hydrological cycle**

**Oceans and seas: currents and waves**

**Surface and underground waters**

**Glaciers**

**The shapes of the landscape**

**Distribution of continents and oceans**

**The great geological structures of the Earth's surface**

**The orogenic chains, the rift zones, the deserts, the volcanoes**

**Transportation of sediments along the hydrographic network**

**Slope stability**

**Introduction of pedology**

**Surface alteration and soil profiles**

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**River and coastal protection works**

**Exploitation of energy resources (oil, gas, minerals) and forms of the landscape**

**Climate change**

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**Prerequisites**

There are no specific prerequisites, however an in-depth knowledge of the basic geography and the introductory concepts of the Earth sciences will help, along with an appropriate vocabulary on the issues addressed for a better understanding of the topics covered.

## Teaching form

Following the indications of our University and the rules related to the Covid-19 emergency period, the lessons will take place in the presence of students divided in shifts and lessons will be video-recorded in a synchronous and asynchronous modality.

Shifts will be communicated to all students before the course starts. The recorded lessons will be accessible through the e-learning platform.

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During the course, a daily trip will be held to recognize and describe the forms of the landscape associated with alpine glacial and periglacial environments. (A written report of max 10 pages will be requested on this excursion).

## Textbook and teaching resource

Text book suggested: Alan Strahler, 2015. *Fondamenti di Geografia Fisica*, Zanichelli 460 pg.

The teacher will make the presentations shown during the lessons available on the e-learning website.

## Semester

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The one-day excursion dates will be added before the beginning of the course.

## Assessment method

**The final exam will be divided into two distinct moments.**

**An oral exam after the end of the course that will serve to verify the learning of the topics covered during the semester. During the oral exam, 5**

**questions will be asked, in about 30 minutes. Each question will be evaluated from 0 to 5 points for a maximum score of 25/25.**

**The second evaluation will take place following the correction of a written report of a maximum of 10 pages, on the daily output that will be carried out in Val Ventina (SO) and will be evaluated between 0 and 5 points.**

Each student will be invited to take the oral exam via email. The exam, once available, will appear in the first line of the e-learning course website. The exam will be carried out by accessing e-learning and via the Webex platform.

The oral vote will count for 5/6 (25/30) of the final vote, while the final report on the excursion will count for 1/6 (5/30).

The individual report, prepared at home on the computer and enriched with photos taken personally by the students during the exit in Val Ventina (SO), will be prepared following the model shared by the teacher on the e-learning site, in Word format and will be sent to teacher at the e-mail: [sergio.ando@unimib.it](mailto:sergio.ando@unimib.it)

**Office hours**

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