UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Geografia Fisica

2021-1-E3401Q040

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

Man changes the landscape

River and coastal protection works

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

Climate change

Review of the course topics for the final exam

Preparation for field work, Val Venosa, Vedretta della Vedova Glacier (CO).

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.

The course contents will be presented through pdf documents on the individual topics, accompanied by an appropriate collection of in-depth bibliography. Students' participation in the discussion of the topics and the consultation to facilitate their understanding of the topics under examination through face-to-face questions and via email. Lessons will be recorded using the pdf of the lessons and adding a video set of materials prepared by the teacher to help understanding, photographic material, travel simulated with Google Earth, exercises and videos.

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

The course will start on October 5, 2020 and will end on January 8, 2021.

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*

Office hours

The course teacher is always available by email.