UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Field Geology and Mapping

2021-2-E3401Q036

Aims

Recognition of geometry and compositional characters of geological bodies, and their description in the field.

Contents

Introduction to field geology and mapping.

Detailed program

Field geology techniques: Description and classification of sedimentary, igneous and metamorphic rocks in the field. Quaternary deposits. Compass and basic stereonet techniques. Plotting contacts on base maps. Stratigraphic polarity in deformed successions. Stratimetric problems. Data collection and making standard geological maps. Stratigraphic logs and geological cross-sections from field data. Preparing geologic reports.

Field work: Several daily field excursions aimed at the recognition and mapping of sedimentary covers and crystalline basements.

Geological mapping I: Five full days of geological field survey, during which small groups of students (ca 10-15 students each teacher) will apply the basic field geology techniques to produce geological maps, cross-sections and illustratory notes in geologically simple areas of the Alps-Apennines system.

Prerequisites

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Teaching form

- Lessons

- Laboratory experiences

- Field work (four daily field excursions + five full days of geological field survey)

During the Covid-19 emergency, lectures will take place in a mixed mode also including remote asynchronous lessons and field work in small groups to ensure social distancing

Textbook and teaching resource

Notes provided by the lecturers

Semester

second semester

Assessment method

Written and oral examination + written reports.

Written examination (duration: 1h): stereographic projections, plotting contacts on base maps, chronostratigraphic chart, open question.

Oral examination (same day after the written examination): open questions on field geology techniques; measurement of planes and lines using a geologic compass; discussion about the written reports of excursions 2 and 3, and evaluation of the field notebook (the written reports of excursions 1 and 4 are due two days before the date established for the written examination, and are evaluated separately).

These activities provide a total of 8 cfu. The final votation (12 cfu) will include 4 additional cfu provided by the written report of the five-days geologic field work.

During the Covid-19 emergency the exams will be online and will be conducted using the Webex platform. A public link to the examination will be reported on the e-Learning page of the course.

Office hours

Website: www.disat.unimib.it in teaching area you can find information about teachers cv, telephone number, University room or other place of work, office hours and e-mail.