



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Use of Unmanned Aerial Vehicles (UAVs) for monitoring coastal and nearshore environments: from acquisition procedures to data processing

2223-128R-09

Title

Use of Unmanned Aerial Vehicles (UAVs) for monitoring coastal and nearshore environments: from acquisition procedures to data processing

Teacher(s)

Luca Fallati

Language

English

Short description

The purpose of the course is to provide detailed knowledge on the use of different types of aerial drones (multi-rotor and fixed-wing) for monitoring coastal marine areas. Students will be able to learn how to plan overflights according to the different environmental characteristics and based on the monitoring purpose. Flight simulation

software will also be used. For data processing, datasets of images collected in different coastal environments (tropical and temperate) will be provided and processed through innovative photogrammetry techniques. High-resolution digital terrain models and orthomosaics will be obtained as the final output of the workflow. These will finally be analyzed with image analysis algorithms for automated classification and zonation. At the end of the course, students will present a report to illustrate the results they have achieved.

CFU / Hours

1CFU/8 hours

Teaching period

June 2023

Sustainable Development Goals

CLIMATE ACTION
