



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Laboratory of Advanced Numerical Modelling in Earth Sciences

2223-2-F7401Q115

Module description

The student must learn some:

1. basic algorithms
(numerical solution of differential equations of the first and second order with geological example),
various numerical solution arguments (variables from to from year to year) as Fourier spatial and temporal transforms, nonlinear equations and chaos, stochastic resonance.
2. In addition to algorithms to be built from scratch, examples of programs already implemented are examined and possibly modifiable, such as templates of debris flows, too complex to be writable from scratch during the course
3. Existing and non-modifiable software
4. Development of a research project based on numerical simulation

Learning goals

General goal

Specific skills and competences

Sustainable Development Goals of the 2030 UN Agenda

Breakdown of meetings

2 hours per lesson

Number of participants

3

Language used in meetings

English and Italian

Delivery period of the module

second semester

Methods of assessing the outcomes of the learning process

detailed final report of a specific project

Department of affiliation of the teacher

DISAT

Sustainable Development Goals

QUALITY EDUCATION
