UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Machine Learning Paradigms

2526-114R-1-04

Title

Machine Learning Paradigms

Teacher(s)

Simone Bianco

Language

English

Short description

You must enrol at least one week before the first lecture.
If you are unable to enrol, send an email to the teacher.

Objectives: This course provides an overview of the major paradigms in machine learning, including supervised, unsupervised, semi-supervised, self-supervised, few-shot learning, and federated learning.
It covers the theoretical foundations, algorithmic implementations, and practical applications of these paradigms.

Prerequisites: Knowledge of (basic) machine learning algorithms

Content:

- Recap on Supervised and Unsupervised Learning
- Semi-supervised and Weakly supervised Learning
- Self-supervised Learning
- Few-shot Learning
- Active Learning
- Continual, Incremental, and Lifelong Learning
- Federated Learning

Exam: Project with the application of the techniques seen in class to a case study in one's own research area

Course Material: Slides provided by the lecturer

CFU / Hours

2 CFU, 20 hours

Teaching period

26/1 - 13/2

Sustainable Development Goals

QUALITY EDUCATION