

COURSE SYLLABUS

Data Science Lab in Public Policies and Services

2425-2-FDS01Q028

Aims

This module aims at teaching students how to analyze medical data (especially, data of electronic health records) through computational statistics and machine learning techniques to infer new knowledge about the conditions of patients.

Contents

Dataset search and retrieval
Data preparation and data cleaning
Exploratory data analysis
Unsupervised machine learning
Supervised machine learning
Feature ranking
Result understanding and validation
R and Python programming languages

Detailed program

Dataset search and retrieval
Data preparation and data cleaning
Exploratory data analysis
Unsupervised machine learning
Supervised machine learning
Feature ranking

Result understanding and validation
R and Python programming languages

Prerequisites

Basic statistics and basic machine learning
Basic knowledge of R o Python

Teaching form

In-person theory classes and practice exercise classes

Textbook and teaching resource

Classes slides and scientific papers mentioned during classes

Semester

Second semester

Assessment method

Personal work on a scientific project, delivery of a report on the work done, and oral presentation of the work done

Office hours

To define via email by writing to [davide.chicco\(AT\)unimib.it](mailto:davide.chicco(AT)unimib.it)

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING
