UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Informatics and Programming For Tourism

2122-1-F7601M053

Learning objectives

The aim of the course is to provide to the students the skill for the use of Python language to solve problems of medium complexity in their field of specialization and to translate them into automated procedures.

Contents

Python programming and applications to data manipulation and problem modeling

Detailed program

- Introduction to PyCharm:
- Python programming:
  - operators, basic data types (integers, decimals, booleans, lists, tuples, sets and maps), variables and expressions;
  - flow control;
  - functions, parameter passing;
  - classes;
  - NumPy library;
  - Pandas library;
  - Matplotlib library;
  - machine learning: scikit-learn library;

Prerequisites

Mathematical-logical knowledge as acquired during high-school, linear algebra and basic concepts on algorithms.

Teaching methods

Frontal lessons. Lessons take place in computer science lab to allow students to immediately apply the concepts explained.

Assessment methods

Learning assessment includes a written exam and possibly an oral exam. The written exam will take place in the teaching laboratories to evaluate the student's skills in using Python and their competence in solving simple problems.

Textbooks and Reading Materials

Paul J. Deitel, Harvey M. Deitel, Intro to Python for Computer Science and Data Science. Pearson, 2020

Semester

Second semester

Teaching language

Italian