UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Informatica e Programmazione per il Turismo

2627-1-F7602M007

Learning objectives

The computer science and programming course takes place over 42 hours, ideally divided between basic computer science and programming.
The aim is to provide general knowledge of a theoretical, practical, and applicative nature to promote the use of technology in a sector with vast possibilities for digital development, already identifiable today for the significant solutions and tools available.
While the proposed knowledge may not be characterized by depth, it certainly lays the foundation for further in-depth studies.

Contents

We start with the principles of computer science, a set of basic knowledge that introduces technology.
The key point is represented by algorithms, an ideal junction to programming.
This allows the possibility of using specific software for algorithm development and code editing.
In the first case, Algobuild, which is free for personal use. In the second part, having identified Python as the programming language, in continuity with the previous editions of the course, the availability of editors for the exercise phase is definitely broader and subject to the filtering of the students' experiences.

Detailed program

The proposed topics:

Principles of computer science:

- Introduction to computer science
- Representation of information
- Boolean algebra
- Hardware and software
- Operating systems
- Algorithms

Computer Programming

Prerequisites

No one in particular.
A basic knowledge of computer use, especially for home use, may be helpful.

Teaching methods

Classes will be held in person at the university's computer laboratories, according to the scheduled timetable.
Any discrepancies will be communicated via the e-learning platform.
The student may choose, if they wish, to use a personal device different from what is available in the classroom, which allows them to carry out the activities required by the course.

Assessment methods

The exam consists of two parts:

1. A timed, multiple-choice questionnaire administered via a digital platform, designed to verify a precise knowledge of the foundational concepts required for programming.
2. Two short programming exercises where the user, based on the instructions provided, will build, validate, and execute code to solve specific problems.
   The total duration of the exam is 60 minutes.

Textbooks and Reading Materials

No mandatory or recommended text.
Teacher provides handouts and other useful material for preparation directly on the e-learning platform.
Nothing prevents the student from freely evaluating other study aids.
The teacher, by free choice, makes available to all students the video recordings already made during other formative academic activities, which he has, on a part of the proposed topics. There is no programming part. The files are on the cloud, along with other videos that are not of interest for the course (to be ignored).

Semester

First semester of the academic year 26-27, according to the calendar set by the university.
Any changes will still be communicated by the teacher via the e-learning platform.

Teaching language

Italian.

Sustainable Development Goals

QUALITY EDUCATION