



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Computer Science - 3

2122-2-E3301M194-E3301M198M-T3

Learning objectives

Contents

Detailed program

1. Introduction to Computer Science
2. Machine architecture
 - Von Neumann architecture
 - Central Processing Unit (CPU)

- Computer data storage
 - Input and output devices
 - Modern computer architectures
3. Introduction to Algorithms
- Variables and data types
 - Flow control: sequence, selection, iteration
4. Python programming language
- Program structure
 - Primitive data type.
 - Variables and assignment.
 - Arithmetic, relational and logic expressions.
 - Conditional instructions
 - Iterative instructions
 - string, list, and text file.
 - Function: declaration, definition and parameters.
 - Program execution
5. Data Base and SQL language.
- Relational model
 - SQL DDL and DML instructions
6. Operating System
7. Computer networks

Prerequisites

Teaching methods

During the Covid-19 emergency period, lessons will take place in synchronous videoconference.

Assessment methods

In the Covid-19 emergency period, exams will only be online. They will be carried out using the WebEx platform and esamionline platform.

Textbooks and Reading Materials

- For 1, 2, 4 and 5 use the didactic material that can be downloaded from the course web page
- For 2: Think Python First Edition, by Allen B. Downey (free online) or A. Lorenzi, E. Cavalli, V. Moriggia. Linguaggio Python. Atlas
- For 3: A. Lorenzi, D. Rossi. Le basi di dati. Il linguaggio SQL. Atlas

Semester

Second semester

Teaching language

Italian
