

Digital Sciences ECTS : 4 Volume horaire : 30 Description du contenu de l'enseignement :

- · Introduce computational logic and programming syntax
- · Explore various ways of writing a program solution for a given problem statement
- · Develop the essential technological background for students' work life.

## Compétence à acquérir :

By the end of this module, students will have demonstrated the ability to:

## Knowledge

- 1. Broad knowledge of programming principles
- 2. Knowledge of current technology applications with the programming concepts **Skills**
- 1. Evaluate a problem statement for building the structural blocks of a program
- 2. Examine the problem statement to interpret the input and output requirements of the program.
- 3. Design conditional statements using Boolean expressions.
- 4. Construct repetitive instructions.
- 5. Apply modularity in algorithmic: Python function and module
- 6. Handle sequential data structures in Python: character strings, list.
- 7. Read and write to files.

## Values and Attitudes

- 1. Present flawless program solutions
- 2. Work proactively on various programming challenges
- 3. Add efficiency in the approach of problem solving.

## Mode de contrôle des connaissances :

Homework 20% + Test 30% + Final exam 50%

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