Digital Sciences

ECTS : 4

Volume horaire : 36

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%