I. T. E. BLAISE PASCAL - FOGGIA

Amministrazione Finanza e Marketing – Sistemi Informativi Aziendali
Informatica e Telecomunicazioni

Programma Svolto

Classe 3ªC - SIA(Cambridge)

Anno Scolastico: 2021/2022

Disciplina: Informatica (Computer science)

Docenti: Cavaliere Luisa – D'Amato Patrizia

Libri di testo: Lawrey Sarah, Scott Donald - Cambridge IGCSE® Computer Science Coursebook - Cambridge University Press

Chris Roffey - Cambridge IGCSE® Computer Science Programming Book for Python - Cambridge University Press

Syllabus: Syllabus Cambridge IGCSE™ Computer Science 0478-2023-24-25

- Hardware
    - Computer architecture
    - Fetch–decode–execute cycle: Little Man Computer
    - Factors that can affect the performance of a CPU
    - Input/Output devices, sensors
    - Virtual memory and Cloud storage
    - Network hardware

- Data Representation
    - Binary manipulation and negative numbers

- Data transmission
    - Types and methods of data transmission
    - Methods of error detection
    - Encryption

- Software
    - Types of software and interrupts
    - Types of programming language, translators
    - The internet and its uses
    - The internet and the world wide web
    - Digital currency
    - Cyber security

- Algorithm design and problem-solving
  - Standard methods of solution
    - linear search
    - bubble sort
    - totalling
    - counting
    - finding maximum, minimum and average
  - Algorithms for given problems or scenarios, using pseudocode, program code and flowcharts
  - Trace tables
- Programming
  - Variables and constants and use the basic data types
  - Iterations
  - Strings handling
  - One-dimensional and two-dimensional arrays
- Laboratory activities
  - Programming: Python
    - Programming tasks
  - Mark-up language (HTML) and Cascading Style Sheets (CSS)
- Skills enhancement course
  - Question papers of previous sessions
- Cisco Course - Introduction to Cybersecurity
- Educazione civica
  - Comunicare e informarsi attraverso la rete
  - Usare la rete in modo sicuro
  - Identità digitale
  - Tutela dei dati
  - Pericoli degli ambienti digitali

Foggia, 28 maggio 2022

Gli alunni

Le docenti