

I. T. E. BLAISE PASCAL - FOGGIA

Amministrazione Finanza e Marketing – Sistemi Informativi Aziendali
Informatica e Telecomunicazioni

Programma Svolto

Classe 4^aC - 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 0478-2022

Theory of computer science

- 1.1 Data representation (review)
 - 1.1.1 Binary systems
 - 1.1.2 Hexadecimal
 - 1.1.3 Data storage
- 1.2 Communication and Internet technologies (review)
 - 1.2.1 Data transmission
 - 1.2.2 Security aspects
 - 1.2.3 Internet principles of operation
- 1.3 Hardware and software
 - 1.3.1 Logic gates (review)
 - 1.3.2 Computer architecture and the fetch-execute cycle (review)
 - 1.3.3 Input devices (review) - **Sensors**
 - 1.3.4 Output devices (review)
 - 1.3.5 Memory, storage devices and media (review)
 - 1.3.6 Operating systems (review)
 - 1.3.7 High- and low-level languages and their translators**
- 1.4 Security**
- 1.5 Ethics**

Practical problem-solving and programming

2.1 Algorithm design and problem-solving

2.1.1 Problem-solving and design (review)

Validation and verification checks

Top-down design, structure diagrams, library routines and sub-routines

2.1.2 Pseudocode and flowcharts (review)

2.2 Programming

2.2.1 Programming concepts (review)

2.2.2 Data structures; arrays (review)

2.3 Databases

Define a single-table database from given data storage requirements

Choose and specify suitable data types

Choose a suitable primary key for a database table

Perform a query-by-example from given search criteria

- 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
 - Usare la rete in modo sicuro
 - Identità digitale
 - Tutela dei dati
 - Pericoli degli ambienti digitali

Foggia, 1 giugno 2022

Gli alunni

Vincenzo Di Manno

Roberta Padalino

Le docenti

Fatma d'Amico

Lucrezia