



MCAST

Malta College of Arts, Science & Technology

MQF Level 1

IT-01-19

Introductory Certificate in ICT

Course Specification

Course Description

The course is designed to provide the necessary training in basic skills, as well as the fundamentals of computer systems and programming skills. Students will begin to appreciate the basic components that make up a computer system, and the interaction of the components with each other to allow us to use this technology as an effective tool for study, work and leisure. Students will also be introduced to Programming to develop skills in designing simple algorithms as well as writing simple computer programmes

Programme Learning Outcomes

At the end of the programme the students are able to

1. *Distinguish the parts of a computer system and software design phases.*
2. *Identify computer hardware and basic programming techniques.*
3. *Install hardware and use of programming languages for simple tasks.*
4. *Apply basic ICT Skills.*

Entry Requirements

Finished Compulsory Education

Current Approved Programme Structure

Unit Title	ECVET
Programming	6
Computer Systems	6
Mathematics	5
English	5
Malti	5
Information Technology	5
Individual and Social Responsibility	3
Science	5
Total ECVET	40

Programming

Unit level (MQF): 1

Credits : 6

Unit description

This unit enables Learners to understand the fundamental concepts and terminology of software development. It is mainly based on the design based learning approach that emphasises different practices that focus on the creative aspect of programming. The unit develops the learners with the skills required to design simple programming algorithms as well as in writing simple computer programs. Learners will be able to accomplish tasks associated with structured algorithms and procedural techniques such as variables, data types, selection, iteration, conditional and loop constructs using a visual drag and drop programming language.

Learning Outcomes

On completion of this unit learners should be able to:

1. *Design a solution for simple algorithms.*
2. *Identify the basic procedural techniques used in programming.*
3. *Use a graphical programming language for the implementation of an algorithm.*

Computer Systems

Unit level (MQF): 1

Credits : 6

Unit description

This unit is to enable the Learners to develop their knowledge as regards to the main parts of a computer system including input and output peripherals. The learners will be able to distinguish between different types of computers, ranging from Desktop, Laptop, Server, Super Computer and handheld devices. The unit takes into consideration that the learners will be able to demonstrate the installation of peripheral devices and their use such as: connecting and installing peripheral devices, using external storage devices, printing, scanning etc., for everyday tasks. Learners will be exposed to real hardware components during the practical sessions to consolidate their knowledge. Learners will be made aware of common health and safety issues and use appropriate methods to protect themselves. Learners will be able to distinguish different network connections and topologies and the importance of cloud based application. Learners will be made aware about the importance of digital literacy in today's world.

Learning Outcomes

On completion of this unit learners should be able to:

1. *Distinguish between different types of computers, hardware, software and software types.*
2. *Identify internal and external hardware components, connection methods used and different peripheral devices by describing their use.*
3. *Identify different types of networking used in a computer system and the importance of digital literacy in today's world.*