



MCAST

Malta College of Arts, Science & Technology

MQF Level 1

**Introductory Certificate in Construction
Engineering**

CE-01-19

CE-01-19G

Course Description

The programme provides an opportunity to school leavers in possession of the School leaving Certificate to explore the underpinning principles of common engineering skills. It presents learners with vocational practice to demonstrate the opportunities that can be followed in various sectors. This includes, wood work, plumbing, sheet-metal, bench fitting, electrical and trowel practical exercises.

By the end of the course, the student would have experienced and gained sufficient basic knowledge to follow any Level 2 Foundation Certificate programme offered by the Institute of Engineering and Transport or any other institute. The course includes a significant key skills component which will help to improve language, literacy and numeracy skills. IT and Personal Development sessions are also part of the key skills component.

Programme Learning Outcomes

At the end of the programme the students is able to

- 1. Safely perform routine workshop practices when using a range of hand tools.*
- 2. Follow instructions on how to mark simple templates.*
- 3. Follow instructions to produce simple projects using various materials.*
- 4. Read and interpret drawings that require simple numerical calculations.*

Entry Requirements

Finished Compulsory Education

Initial Assessment Tests

Current Approved Programme Structure

Unit Title	ECVET/ECTS
Building and Wood Trades	6
Building Services-Electrical, Plumbing and Sheet Metal	6
Mathematics	5
English	5
Malti	5
Information Technology	5
Individual and Social Responsibility	3
Science	5
Total ECVET/ECTS	40

Building & Wood Trades

Unit level (MQF): 1

Credits: 6

Unit Description

This unit provides learners who wish to study building and wood trade with basic general knowledge, experience and skills training. Learners will become familiar with: the materials and processes that are usually employed the construction industry today. Learners will learn about tools and gain skills related to building and woodwork while understanding the basic concepts of health and Safety and the need for personal protection at the place of work. Students will learn on different types of structures, principles of traditional and contemporary work in building and woodwork, as well as literature that helps learners complete their knowledge.

Lecturers will share with learners their work experience, such as job-ready skills, introduce them with jobs in demand on the market, as well as helping learners estimate the cost for their work. This experience can be applied to practical routine situations and in safe conditions with the help of professionals.

This unit design is embedded within a numeracy and literacy skill enhancement programme within a vocational framework.

Learning Outcomes

Upon completion of this unit the student will be able to:

- 1. Understand the underpinning principles of trowel trades and their importance in the building industry.*
- 2. Understand the underpinning principles of woodwork trades and their importance in the construction industry.*
- 3. Know how to deal with hazards, health risks and precaution measures associated to the building construction and woodwork industry.*

Building Services - Electrical, Plumbing and Sheet Metal

Unit level (MQF): 1

Credits: 6

Unit Description

Learners will acquire basic knowledge about building services with special reference to Electrical, Plumbing and Sheet metal works by using theory and practical experience in the workshop. Special attention is given to the basic principles of handling tools, familiarisation of processes, materials and principles of safety procedures.

Electrical, Plumbing and Sheet metal works are trades require the development of skills in the use of hand tools, measuring instruments and the knowledge of basic power tools. Learners will gain knowledge about workplace communication, occupational health and safety, quality procedures, systems and planning.

The unit also comprises the use of different fixings, fixtures and installation processes.

This unit design is embedded within a numeracy and literacy skill enhancement programme within a vocational framework.

Learning Outcomes

Upon completion of this unit the student will be able to:

- 1. Understand the underpinning principles of the Electrical trade and its importance in the construction industry.*
- 2. Understand the underpinning principles of the Plumbing trade and its importance in the construction industry.*
- 3. Understand the underpinning principles of Sheet metal work trade and its importance in the construction industry.*
- 4. Deal with Hazards, health risks and precaution measures associated to Electrical, Plumbing and sheet metal work.*