MCAST

MQF Level 1

AS1-01-21

Introductory Certificate in Applied Science

Course Specification

Course Description

The introductory course in Applied Science aims to provide knowledge of science and technology, comprised by recalling the basic scientific and technological facts about the immediate natural environment. This is achieved through the personal involvement of students, as they learn how to apply science and technology in everyday life. Ultimately, this will lead to an improvement of students' ability to take care of their health and safety at home, at work and during leisure. Consequently this personal development will serve as a basis for further vocational studies.

Programme Learning Outcomes

At the end of the programme the students is able to

1. *Observe and identify objects and materials of scientific and technological interest.*
2. *Recall basic scientific and technological facts that help to improve the quality of life.*
3. *Describe the immediate environment at home and at the college using single scientific and technological terms.*
4. *Report and communicate scientific findings in a clear and concise manner.*

Entry Requirements

- Finished Compulsory Education
- Initial Assessment Tests (as may be applicable)

Current Approved Programme Structure

Unit Code	Unit Title	ECVET
ASASC-106-1402	Basic Principles of Physics	6
ASASC-106-1403	Introduction to Life Science	6
CDKSK-105-1926	Mathematics	5
CDKSK-105-1927	English	5
CDKSK-105-1928	Malti	5
CDKSK-105-2106	Information Technology	5
CDKSK-103-2101	Community Social Responsibility	3
CDKSK-105-1930	Science	5
Total ECVET		40

ASASC-106-1402 Basic Principles of Physics

Unit level (MQF): 1

Credits : 6

Unit description

The content of Introductory Course in Applied Science covers and deepens the knowledge in areas specified in National Qualifications Framework for Science and Technology - The Physical World.

This unit covers physical and organoleptic properties of matter, energy and sources of heat and electricity, motion and forces that influence speed with an emphasis on friction, gravity and overcoming its force by using levers, magnetic and electrical force. No previous knowledge of physics is necessary.

Students will learn about physical and organoleptic properties of matter such as colour, hardness, odour, taste, solubility, and electrical conductivity, which will enable them to classify and use objects and materials in practical context. They will also learn about the immediate sources of heat and electricity in everyday life, how to use them properly, safely and economically.

The unit will cover a wide range of appliances to enable students to recognize physical principles and how to overcome friction (lubricants), gravity (levers) as well as practical applications of magnetic and electrical force.

Learning Outcomes

On completion of this unit learners should be able to:

1. *Identify physical and organoleptic properties of matter;*
2. *Describe energy and sources of heat and electricity;*
3. *Understand motion and forces that influence speed with special attention of friction, gravity and overcoming its force by using levers, magnetic and electrical force.*

ASASC-106-1403 Introduction to Life Science

Unit level (MQF): 1

Credits : 6

Unit description

Content of Introductory Course in Applied Science covers and deepens the knowledge in areas specified in National Qualifications Framework for Science and Technology - The Living World together with other subjects related to horticulture and animal care. This unit focuses on living organisms, with particular reference to plants, animals and their basic structure (anatomy). It focuses on plant and animal organs and their anatomical functions. Furthermore, the unit explores the husbandry requirements of various plants and animals and the importance of each. The unit also encompasses some of the following topics: plants and animals, food chains, heredity and genes, parents and offspring similarities, tissue and cells.

No previous knowledge of biology is required.

Students should become familiar with cells and tissues and understand the size, shape and microstructure of cells through practical microscopy and visual observations. They will study the structure of organ, including cells, tissues, organs and organ systems. In addition to basic understanding of anatomy, they should also become familiar with the care of plants and animals by recognizing their structure and function.

Learning Outcomes

On completion of this unit learners should be able to:

1. *Describe the basic structure of plant and animal cells and tissues;*
2. *Understand the structure, function and care of plants and animals;*
3. *Understand relationships between organisms and with their environment.*