MQF/EQF Level 3

CE3-A5-21

Diploma in Masonry Heritage Skills

Course Specification

Course Description

This vocational course gives the student the opportunity to take stone restoration as a career. It provides both practical and theoretical skills to enable participation in limited interventions in stone restoration. Successful students can progress to the next higher level course in restoration, the MCAST Advanced Diploma in Masonry Heritage Skills (Mastru). Throughout the programme students will have the opportunity to obtain necessary maintenance, protection and preservation skills, understand preparation and recording techniques, and apply cleaning and testing procedures.

The programme is complemented with other essential units such as Safety at Work, Technical Reporting, IT and Applied Mathematics.

Programme Learning Outcomes

At the end of the programme the students is able to

1. *Carry out a risk assessment of the surrounding working environment before and after executing an assigned task;*
2. *Use basic tools on surfaces to stabilize, preserve and restore historic buildings;*
3. *Interpret written specifications/drawings and evaluation reports for work on historic structures;*
4. *Identify and apply the main types of materials in use.*

Entry Requirements

- MCAST Foundation Certificate ;or
- 2 SEC/O-Level/SSC&P (Level 3) passes

Key Information

Awarding Body – MCAST

Accreditation Status – Accredited via MCAST's Self Accreditation Process (MCAST holds Self-Accrediting Status as per 1st schedule of Legal Notice 296/2012)

Type of Programme: Qualification

MQF Level	Examples of Qualifications	'Qualification' Minimum Credits Required	'Award' Credits Required
Level 8	Doctoral Degree Third Cycle Bologna Process	NA	NA
Level 7	Masters Second Cycle Bologna Process	90-120	Less than 30
	Post-Graduate Diploma	60	
	Post-Graduate Certificate	30	
Level 6	Bachelor[23]/Bachelor (Hons.)[24] First Cycle Bologna Process	180-240	Less than 180
Level 5	Short Cycle Qualification	120	Less than 60
	Undergraduate Higher Diploma	90	
	Undergraduate Diploma	60	
	Undergraduate Certificate	30	
	VET Level 5 Programme[25]	60-120	
Level 4	Pre-Tertiary Certificate	30	Less than 120
	VET Level 4 Programme[26]	120	
	MATSEC Certificate	NA	
Level 3	VET Level 3 Programme[27]	60	Less than 60
	General and Subject Certificate	NA	
Level 2	VET Level 2 Programme[28]	60	Less than 60
	General and Subject Certificate	NA	
Level 1	VET Level 1 Programme[29]	40	Less than 40
	General and Subject Certificate	NA	
Introductory Level A	Preparatory Programme	30	Less than 30
Introductory Level B	Pre-entry Basic Skills Course	30	Less than 30

Table 1: Minimum number of credits for 'Qualifications' and parameters for 'Awards'

Fig.1: p56, Ministry for Education and Employment & National Commission for Further and Higher Education Malta (2016). *Referencing Report, 4th Edition*. NCFHE.

Total number of Hours: 1500

Mode of attendance: Fully Face-to-Face Learning

Duration: 1 Year

Target audience for MCAST full-time courses is 16 to 65+

The official language of instruction at MCAST is English. All notes and textbooks are in English (except for language courses which will be in the respective language being instructed). International candidates will be requested to meet English language certification requirements for access to the course.

This course will be offered at

MCAST has four campuses as follows:

MCAST Main Campus
Triq Kordin, Paola, Malta

All courses except for the Institute for the Creative Arts, Centre of Agriculture, Aquatics and Animal Sciences are offered here.

Institute for the Creative Arts
Mosta Campus
Misraħ Għonoq Tarġa Gap,
Mosta

Institute of Applied Sciences,
Centre of Agriculture, Aquatics and Animal Sciences,
Luqa Road, Qormi

Gozo Campus
J.F. De Chambray Street
MCAST, Għajnsielem
Gozo

Teaching, Learning and Assessment

The programmes offered are vocational in nature and entail both theoretical lectures delivered in classes as well as practical elements that are delivered in laboratories, workshops, salons, simulators as the module requirements dictate.

Each module or unit entails a number of in person and/or online contact learning hours that are delivered by the lecturer or tutor directly (See also section 'Total Learning Hours).

Access to all resources is provided to all registered students. These include study resources in paper or electronic format through the Library and Resource Centre as well as tools, software, equipment and machinery that are provided by the respective institutes depending on the requirements of the course or module.

Students may however be required to provide consumable material for use during practical sessions and projects unless these are explicitly provided by the College.

All Units of study are assessed throughout the academic year through continuous assessment using a variety of assessment tools. Coursework tasks are exclusively based on the Learning Outcomes and Grading Criteria as prescribed in the course specification. The Learning Outcomes and Grading Criteria are communicated to the Student via the coursework documentation.

The method of assessment shall reflect the Level, credit points (ECTS) and the schedule of time-tabled/non-timetabled hours of learning of each study unit. A variety of assessment instruments, not solely Time Constrained Assignments/Exams, are used to gather and interpret evidence of Student competence toward pre-established grading criteria that are aligned to the learning outcomes of each unit of the programme of study.

Grading criteria are assessed through a number of tasks, each task being assigned a number of marks. The number of grading criteria is included in the respective Programme Specification.

The distribution of marks and assessment mode depends on the nature and objectives of the unit in question.

Coursework shall normally be completed during the semester in which the Unit is delivered.

Time-constrained assignments may be held between 8 am and 8 pm during the delivery period of a Unit, or at the end of the semester in which the Unit is completed. The dates are notified and published on the Institute notice boards or through other means of communication.

Certain circumstances (such as but not limited to the Covid 19 pandemic) may lead Institutes and Centres to hold teaching and assessment remotely (online) as per MCAST QA Policy and Standard for Online Teaching, Learning and Assessment (Doc 020) available via link https://www.mcast.edu.mt/college-documents/

The Programme Regulations referenced below apply. (DOC 003 available at: link https://www.mcast.edu.mt/college-documents/)

Total Learning Hours

The total learning hours required for each unit or module are determined as follows:

Credits (ECTS)	Indicative contact hours	Total Student workload (hrs)	Self-Learning and Assessment Hours
1	5 – 10 hrs	25 hrs	20-15 hrs*
2	10 – 20 hrs	50 hrs	40-30 hrs*
3	15 – 30 hrs	75 hrs	60-45 hrs*
4	20 – 40 hrs	100 hrs	80-60 hrs*
6	30 – 60 hrs	150 Hrs	120-90 hrs*
9	45 – 90 hrs	225 hrs	180-135 hrs*
12	60 – 120 hrs	300 hrs	240-180 hrs*

* The 'Self-Learning and Assessment Hours' amount to the difference between the contact hours and total student workload.

Grading system

All MCAST programmes adopt a learner centred approach through the focus on Learning Outcomes. The assessment of MCAST programmes is criterion-referenced and thus assessors are required to assess learners' evidence against a pre-determined set of Learning Outcomes and assessment criteria.

For a student to be deemed to have successfully passed a unit, a minimum of 50% (grade D) must be achieved. In case of part time programmes, the student must achieve a minimum of 45% to successfully pass the unit.

All units are individually graded as follows:
A* (90-100)
A (80-89)
B (70-79)
C (60-69)
D (50-59)
Unsatisfactory work is graded as 'U'.

Work-based learning units are graded on a Pass/Fail basis only.

Detailed information regarding the grading system may be found in the following document: DOC 003 available at: link https://www.mcast.edu.mt/college-documents/)

Intake Dates

•MCAST opens calls for application once a year between July and August of each year for prospective applicants residing in MALTA.
•Applications to full-time courses from international students not residing in MALTA are accepted between April and Mid-August.
•For exact dates re calls for applications please follow this link https://www.mcast.edu.mt/online-applications-2/

Course Fees

MCAST course are free for Maltese and EU candidates. International candidates coming from outside the EU need to pay fees for the respective course. Course fees are set on a per-level and course duration basis. For access to course fee structure and payment methods please visit https://www.mcast.edu.mt/fee-payments-for-non-eu-candidates/.

Method of Application

Applications to full-time courses are received online via the College Management Information System. Candidates can log in using Maltese Electronic ID (eID) or European eIDAS (electronic identification and trust services) to access the system directly and create an account as the identity is verified electronically via these secure services.

Non-EU candidates need to request account creation though an online form by providing proof of identification and basic data. Once the identity is verified and the account is created the candidate may proceed with the online application according to the same instructions applicable to all other candidates.

Non-EU candidates require a study visa in order to travel to Malta and joint the course applied for. For further information re study-visa please access https://www.identitymalta.com/unit/central-visa-unit/.

For access to instructions on how to apply online please visit https://www.mcast.edu.mt/online-applications-2/

Contact details for requesting further information about future learning opportunities:

MCAST Career Guidance
Tel: 2398 7135/6
Email: career.guidance@mcast.edu.mt

Current Approved Programme Structure

Unit Code	Unit Title	ECTS	Semester
ETBSV-306-1501	Stereotomy, Stone Dressing and Building Quantities	6	Year
ETBSV-306-1502	The use of Limes, Mortars and Limestone	6	Year
ETCVN-306-1501	Historic Buildings, Restoration and Conservation Technology	6	Year
ETCVN-306-1502	Documentation and Recording Techniques	6	Year
ETCVN-306-1503	Deterioration Mechanisms, Cleaning, Maintenance and Protection Techniques	6	Year
ETH&S-306-1501	Occupational Health and Safety in the Construction Industry	6	Year
CDKSK-304-1921	Mathematics	4	Year
CDKSK-304-1922	English	4	Year
CDKSK-304-1923	Maltese	4	Year
CDKSK-304-2108	Information Technology	4	Year
CDKSK-304-2103	Community Social Responsibility	4	Year
CDKSK-304-1925	Science	4	Year
Total ECTS		60	/

ETBSV-306-1501: Stereotomy, Stone Dressing and Building Quantities

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit provides learners with specific geometrical knowledge of drawing and the techniques of cutting stone blocks named stereotomy. At the base of stereotomy knowledge learners will develop skills of stone blocks transforming and assemble them into curved stable structures. Learners will also gain the knowledge of measuring methods and instruments, and develop the skills on estimating the price of the construction.

Stereotomy represents the art of making sections out of solids. It is a craft of cutting and dressing complicated blocks of masonry (such as those for an arch, vault, or spiral staircase). In other words, it comprises geometrical knowledge of drawing and the techniques of cutting the stone blocks and shaping them into curved stable structures. Learners are introduced to stone dressing techniques and technology with practical, hands-on exercises to experience handling of local limestone blocks and tools. The unit also explores the geometry and the techniques involved in drafting full-size arches and elements of vaults.

Locally used techniques for the measurement and costing of building construction work are explored within the unit. Common hand-held manual and digital measuring equipment are used to facilitate work at the construction sites. Learners are also instructed to make use of IT to compile data and computations.

Learning Outcomes

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

1. *Perform stone dressing techniques in sequence with various stone dressing operations;*
2. *Operate various types of stone dressing tools;*
3. *Perform the setting out of a range of construction types in-situ;*
4. *Compare construction details of historic and contemporary buildings;*
5. *Evaluate structural interventions that could be applied to historical and modern buildings.*

ETBSV-306-1502: The use of Limes, Mortars and Limestone

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit enables learners to use hand tools, power tools, materials and personal protective equipment (PPE) appropriate for the use of limes and mortars and it provides them with the skills needed to identify, mark and repair damaged parts of the structure.

Learners will be able to explore more about the mortar reconstruction processes and the concept of structural consolidation. This unit will equip learners with basic practical skills needed in the repair interventions. They will have the opportunity to use various hand and power tools. A number of practical exercises will allow learners to assemble and finish repair tasks on simple elements in the workshop.

Learners will be qualified to deal professionally with limes and mortars techniques used in the areas of architectural heritage.

Learning Outcomes

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

1. *Discuss the types of limestone (particularly in the local environment);*
2. *Identify and explain quarrying techniques;*
3. *Identify local sorts of rocks and stone primarily used in architecture;*
4. *Demonstrate plaster repair and structural reconstruction processes.*

ETCVN-306-1501: Historic Buildings, Restoration and Conservation Technology

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit introduces learners to the history of architecture with a direct relation to construction developments. The lectures will include architectural developments in various parts of the world and their influence upon Malta's local culture. The learners will gain theoretical knowledge and information related to technology used in restoration and conservation, legal documents, architectural history, and heritage concepts and techniques (contemporary and traditional). Also, it will be described what heritage conservation is, and reasons why we should conserve historic buildings.

Conservation and restoration technology involves a multidisciplinary team where craftsmen have a specific role. Learners will hugely enlarge their knowledge once they are encountered with real life relations between the investor, law, architect and craftsmen. These experts will demonstrate their skills in particular areas that are vital for learners' skill improvement. This unit is also a solid base for further professions, particularly craftsmen that specialise in specific jobs in the field of restoration and conservation technology.

Learning Outcomes

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

1. *Discuss the heritage conservation of historic buildings;*
2. *Describe the structural elements and forms commonly found in historic buildings;*
3. *Explain and demonstrate restoration and conservation techniques;*
4. *Identify and describe the tools and equipment in the restoration and conservation interventions;*
5. *Prepare a plan on the methodology and technology used in restoration and conservation of specific projects.*

ETCVN-306-1502: Documentation and Recording Techniques

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit allows learners to obtain the knowledge and essential practical skills associated with the documentation and recording techniques. Learners will be able to extract, document and assesses important information to plan the process of conservation and restoration.

Learners will learn about the importance of formatted documentation in order to record accurately the restoration and conservation interventions, as well as to perform condition assessment following documentation principles in order to create complete conservation logbooks.

Learners will also acquire skills in the application of technical drawings and freehand sketches made for parts of the structure that are being restored, as well as for the application of photography in conservation. They will be able to communicate about various tasks, using data from notes and sketches.

This unit presents opportunities for learners to connect with other visual techniques (photography, CAD or freehand drawing, etc.) and various areas of knowledge.

Learning Outcomes

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

1. *Define the importance and methods of documenting cultural heritage in general;*
2. *Perform condition assessment in accordance with specific characteristics of buildings and monuments by using agreed terminology and proper documentation approach;*
3. *Produce accurate visual records (technical drawings, freehand sketches and photography) in accordance with written data and conservation requirements and standards;*
4. *Prepare a logbook containing all relevant drawings and notes organised according to set specifications;*
5. *Communicate about various tasks related to practical heritage interventions (based on notes, descriptions and related sketches).*

ETCVN-306-1503: Deterioration Mechanisms, Cleaning, Maintenance and Protection Techniques

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

The aim of this unit is to give learners the opportunity to develop an understanding of different interventions, such as deterioration mechanisms, as well cleaning techniques and protection and maintenance skills. This unit is designed to provide knowledge and skills in the aforementioned topics through a combination of theory, demonstrative practice and on-site work experience.

Learners will be presented with different mechanisms of deterioration (mechanical, physical, chemical and biological). This unit underlines the importance of identifying the causes, and possible solutions prior to appropriate interventions.

In addition, the unit explores the importance of maintenance and protection of heritage buildings and monuments in order to reduce and eliminate the need for restoration. Learners will first learn to evaluate the underlying material (lime washes, patina, etc.) and then they have hands-on practice on sample stones. This way they are provided with necessary skills that help them handle tools and be aware of the prevention of eventual further damage.

This unit gives learners the ability to understand the deterioration mechanisms and to be familiar with the maintenance and protection techniques of the structures.
The unit also explores in depth methods of cleaning interventions. Learners will be enabled to go through practical interventions in cleaning techniques.

Learning Outcomes

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

1. *Recognise conservation terminology by distinguishing between maintenance, conservation and restoration;*
2. *Understand the nature of deterioration mechanisms by distinguishing various effects on different materials;*
3. *Evaluate protection and maintenance procedures;*
4. *Choose appropriate cleaning techniques by applying the correct hand tools, equipment and material.*

ETH&S-306-1501: Occupational Health and Safety in the Construction Industry

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit provides learners with knowledge of risk that arise in the construction process. It will enable them to evaluate and predict the necessary safety precautions to work safely, efficiently and effectively on a building site.

Learners should understand the importance of safety procedures at work to ensure their personal health and safety, of their colleagues, as well as of third parties in the region and preserve a healthy environment.

They will demonstrate foresight and protection methods against harmful consequences in various situations by taking the right choice of appropriate personal protective equipment and appropriate safety procedures.

Learners will gain necessary skills for their appropriate behaviour related to the presence of dangers at workplace in order to reduce health risks prior to going to work, during work and after work.

Learning Outcomes

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

1. *Know the importance of occupational safety and health at the construction site and in the environment, and safe use of equipment (e.g. scaffolding);*
2. *Identify hazards and risks, and assess their impact on workplace;*
3. *Understand the importance of risk assessment and its application for occupational safety procedures.*

CDKSK-304-1921: Mathematics

Unit level (MQF/EQF): 3

Credits: 4

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 100

Unit Description

This unit aims to develop the mathematical knowledge and skills required to apply mathematics in real-life situations. The student should be given the opportunity to engage in problem solving by: (i) exploring different approaches to solve a given problem; (ii) using appropriate strategies and language to arrive to a solution; and (iii) checking the validity and accuracy of the solution. The interconnectivity between different areas of mathematics should be pointed out to the student, even though some areas might require different techniques and tools (including ICT tools). The use of (scientific) calculators and ICT can be integrated in the delivery of the topics listed hereunder. The student should also be helped to develop and appreciate mathematical reasoning and deductive skills by being exposed to short proofs.

By the end of this unit, the student should demonstrate readiness and competency to independently apply mathematical techniques in solving problems, and be able to communicate findings using appropriate mathematical vocabulary and rigour. These problems will involve:

(a) numerical calculations,
(b) algebraic manipulation,
(c) geometrical properties,
(d) basic statistical analysis and
(e) probabilistic techniques.

Learning Outcomes

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

1. Compute further numerical calculations.
2. Construct and manipulate formulae and algebraic expressions.
3. Construct linear equations using graphical techniques.
4. Apply geometrical properties of lines, shapes and solids to find lengths, angles, areas and volumes.
5. Summarise statistical data both graphically and numerically.
6. Determine the probability of single events and of the combination of independent events.

CDKSK-304-1922: English

Unit level (MQF/EQF): 3

Credits: 4

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 100

Unit Description

This unit is targeted at learners proceeding from a Level 2 vocational programme (therefore taking into account completion of Level 2 Key Skills English) as well as those whose entry level is directly at Level 3.

In line with the Malta Qualifications Framework for Level Descriptors, English for Diploma Programmes takes into account the learning of English in terms of knowledge, skills and competences. Knowledge seeks to assess recognition of facts, principles and general concepts in a field of work or study, while skills assess the application of that knowledge in the accomplishment of tasks by employing basic methods, materials and information. In turn, competences empower the learner by giving him/her full responsibility for their accomplishment.

At Level 3, learners are expected to have sufficient knowledge of English in order to deal with everyday situations in scenarios ranging from home, work, social and public settings. General emphasis is laid on work and public settings. In their application of this knowledge, learners are required to listen to or read a range of short texts of a technical and non-technical nature, as well as information broadcast through the popular media. General understanding as well as association of ideas and inference of

meaning are expected at this level. Learners should be capable of communicating in English by discussing familiar topics or vocational topics previously exposed to.

This unit encourages learners to combine their technical knowledge with their growing knowledge of general English. They will be introduced to specialised vocabulary related to their area of vocational interest: to materials and their properties, equipment and its usage, processes, tools, devices, customer service and item servicing and general workshop/laboratory practice. In addition, learners are expected to be able to write and produce short but effective work-related memoranda, personal letters, letters of application and curriculum vitae. Writing practice will be contextualised according to the various exigencies of the various institutes.

Learning Outcomes

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

1. Listen to and understand information obtained from a media source.
2. Identify and comprehend information presented textually in vocational and technical contexts.
3. Identify, comprehend, and interpret information presented visually.
4. Speak and communicate ideas effectively on a range of topics ranging from the personal to the technical/vocational.
5. Write short, work-related correspondence in the form of memoranda, letter of application and curriculum vitae.
6. Research and organise information for extended technical/vocational writing.

CDKSK-304-1923: Maltese

Unit level (MQF/EQF): 3

Credits: 4

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 100

Daħla

L-ilsien huwa essenzjali fl-iżvilupp intellettwali, emozzjonali u soċjali ta' kull individwu. Il- Malti mhux biss jiġbor fih identità lingwistika u kulturali iżda huwa għodda ta' komunikazzjoni u interazzjoni. Permezz ta' l-Ilsien Malti l-individwu jista' jesprimi dak kollu li jħoss u jkun kreattiv fil-messaġġ li jrid iwassal filwaqt li jkun espost għal oqsma oħra ta' tagħlim. Il-Malti huwa lsien ħaj li ssawwar mill-poplu Malti u għadu qiegħed jissawwar biex jibqa' għodda ta' kreattività għal kull min jużah.

L-Għanijiet

Biex l-istudenti jiksbu din l-unità jridu juru li kapaci:

1. Jifhmu diskors standard li wieħed juża u jiltaqa' miegħu fil-ħajja ta' kuljum, kif ukoll jifhmu suġġetti marbuta ma' ġrajjiet kurrenti u suġġetti personali u ta' interess professjonali u vokazzjonali
2. Jifhmu testi li jikkonsistu f'diskors użat fil-ħajja ta' kuljum u fid-dinja tax-xogħol filwaqt li jifhmu deskrizzjoni ta' avvenimenti, fehmiet u opinjonijiet permezz tal-qari.
3. Jaffrontaw sitwazzjonijiet f'kuntest ta' konverżazzjoni u jitkellmu fuq suġġetti li huma familjari jew ta' interess personali kif ukoll marbuta mad-dinja ta' kuljum u l-qasam tax- xogħol.

4. Jifformolaw testi fuq suġġetti li huma familjari għalih u ta' interess personali u vokazzjonali b'mod preċiż u relevanti f'dak li għandu x'jaqsam mal-lingwa Maltija.
5. Jħaddmu ħiliet varji għal skop ta' tagħlim, li jmorru lil hinn mil-lingwa.

CDKSK-304-2108: Information Technology

Unit level (MQF/EQF): 3

Credits: 4

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 100

Unit Description

This unit aims to develop basic computer knowledge and skills needed in real-life situations. In a supportive environment, the learner will be challenged to understand how to use various real-life applications belonging to a productivity suite with the aim of providing to our learners the necessary skills required to use common computer applications necessary during their studies. By the time learners complete this unit they will be increasingly independent users of personal computers and will have a broad understanding of how ICT can help their learning, their work, and their social life. They will have a well-developed ability to decide when and how to use ICT and will be aware of the limitations associated with this use.

Through this unit the learners will achieve a broad knowledge of ICT and will be able to use ICT to carry out several increasingly complex tasks. They will be competent in using word processing, spreadsheet, and presentation software to create, format and finish documents, workbooks and slide shows that contains various elements. Finally, this unit also introduces the use of online communities and online tools to build and maintain an online presence.

Learning Outcomes

On completion of this unit a learner will be able to:

1. Use a word processing application to create everyday letters and documents.
2. Use a spreadsheet to produce accurate work outputs.
3. Use presentation software.
4. Utilise online collaboration tools.
5. Use internet presence management tools.

CDKSK-304-2103: Community Social Responsibility

Unit level (MQF/EQF): 3

Credits: 4

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 100

Unit Description

This key skill presents the opportunity for MQF level 3 learners to explore their individual self through the analysis of their core values and behavioural tendencies. This will bestow insight upon the learners, which will assist them in setting and/or recalibrating their future goals. Through the acquisition of different life skills, learners will be empowered to explore their surroundings and become more responsible towards the environment which hosts them. Delving into what constitutes responsibility towards others, the learners will be presented with the opportunity to recognise the significance of developing an adequate personal conduct. The learners will also be presented with opportunities to develop and/or hone their management and organisational skills, which in return will assist them in becoming more employable and independent. Through the completion of a compulsory community work experience, learners will recognise the benefits of self-management skills towards the acquisition of balance within one's lifestyle. The completion of the compulsory community work project will also present the ideal opportunity for the students to analyse their experience, evaluate their own performance and also generate suggestions and recommendations for future good practices.

Learning Outcomes

On completion of this unit a learner will be able to:

1. Examine the relation between personal core values and goal setting.
2. Practice organisational skills to establish further independence.
3. Identify the practice of proper personal conduct and communication within different communities.
4. Evaluate the engagement in a community work experience.

CDKSK-304-1925: Science

Unit level (MQF/EQF): 3

Credits: 4

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 100

Unit Description

In this Level 3 key skill, learners will increase their awareness about the importance of science in our everyday life. The focus will be on natural sciences, mainly the three different areas; the living world, the physical world and the world of technology.

The focus of the living world will be on interactions between living organisms in a given environment, the dependence of animals on plants for their survival via food chains and food webs, and human life. Topics related with human life will include the position of the main body organs, anatomy and physiology of at least two organ systems, and physical health (importance of healthy food, clean water and unpolluted air; importance of balanced diet and regular exercise for physical and emotional well-being; adverse effects of drugs, alcohol and smoking; ways to avoid contamination of bacteria and viruses; role of white blood cells and misuse of antibiotics).

As part of the physical world, the learner will be more familiar with physical properties of materials, classifying objects and materials based on their physical properties, and linking the uses of objects and materials with their physical properties. Furthermore, they will enhance their knowledge on renewable and non-renewable sources of energy, using sources of energy in the immediate environment safely and economically, and energy-saving measures that can be applied at home and at work.

Related with the world of technology, the learners will discuss health and safety issues at home and in the workplace including recognising situations of risk and ways how one can avoid accidents. Also, the learners will familiarise themselves with issues related to costs and efficiency of everyday life processes by carrying out an analysis of a particular process or task in terms of energy and efficiency.

Learners will enhance their investigative skills via a project (which includes a site visit designed specifically for different institutes) in collaboration with BirdLife Malta. During a training session, lecturers will be given teaching resources and suggestions for sites to deliver the field teaching aspect and project themes. Via this learning outcome, the learner will be empowered to take action to develop a project that addresses an environmental issue. S/he will have to analyse the data, interpret and evaluate findings and then communicate them to their colleagues. The learner should realise that everyone can do something which will make a difference and that action can take place not only at the personal level but also at other levels such as community, national and international levels. Learners should understand ecosystem services and recognise that they can be used in all careers to save time, money, resources etc. but that they need to be respected for this to be possible.

Learning Outcomes

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

1. Observe and classify objects in the immediate environment
2. Link scientific knowledge with everyday life situations
3. Research local environmental issues and use problem solving skills to investigate sustainable solutions
4. Use scientific knowledge to improve everyday life