



MCAST

MQF/EQF Level 3

AE3-A8-21

Diploma in Welding and Fabrication

Course Specification

Course Description

This Apprenticeship course combines theoretical knowledge with practical training, both in College-based industrial workshops and in industry-based apprenticeships. Learners will be expected to participate individually and in teams to fabricate welded products. Learners will have the opportunity to use hand and power tools as well as welding sets, giving particular attention to health and safety considerations. This course also provides learners with the opportunity to further develop their knowledge of key skills subjects such as Mathematics, Science, English, Maltese, Information Technology and Individual and Social Responsibility.

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. Produce simple patterns, developments and templates to fabricate from thin steel plates.*
- 3. Identify materials and compare their properties.*
- 4. Carry out Oxy-Acetylene Gas Welding, Manual Metal Arc Welding and Metal Inert Gas Welding.*

Entry Requirements

MCAST Foundation Certificate

OR

2 SEC/O-Level passes/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 Ġhonoq Targa Gap,

Mosta

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

Gozo Campus

J.F. De Chambray Street

MCAST, Ġhajnsielem

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 courses 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 through 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 join 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
ETH&S-306-1402	Health and Safety in the Engineering Workplace	6	YEAR
ETW&F-306-1402	Building Drawings & Setting Out	6	YEAR
ETW&F-306-1701	MMA Welding Technology and Practice	6	YEAR
ETW&F-306-1404	Fabrication Technology	6	YEAR
ETW&F-306-1702	TIG Welding Technology and Practice	6	YEAR
ETW&F-306-1406	Welding & Fabrication Practice	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	/

ETH&S-306-1402: Health and Safety in the Engineering Workplace

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

The unit introduces effective and safe work to learners, focusing on their wellbeing, on prolonged life of tools and equipment and on economic aspects of work. The primary goal of the unit is to introduce basic working practices in engineering and potential hazards involved. The learner will be introduced to EU regulations adopted for engineering activities and for vocational training. This unit provides learners with knowledge of material and equipment handling, as well as the use of appropriate personal protective equipment (PPE), and their classification: protection of respiratory organs, skin, eye and hearing, protective clothing and ensembles. Learners will become aware of the hazards and risks associated with different engineering tasks, working environments (for example working with high voltages, and static-sensitive devices), use of tools and equipment (both common and special), and working with dangerous materials and substances. The unit covers ways of avoiding hazards and ways to respond correctly and swiftly in case of an incident both in theory and in practice. It is important to emphasize that this represents useful knowledge that could be applied in everyday life. Since completing a job might require team effort, this unit builds team spirit as well by delivering related communication skills. Finally, the unit will introduce some important soft skills in applying knowledge and in continued learning needed for successful professional in engineering.

Learning Outcomes

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

1. *Apply statutory regulations and organizational safety requirements.*
2. *Prepare PPE and working environment according to the task checklist.*
3. *Carry out engineering task according to safety standards.*

ETW&F-306-1402: Building Drawings and Setting Out

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit develops learners' knowledge and skills in using manual drawing equipment like drawing board, rulers pens etc. They will learn how to draw the geometrical elements like lines, angles, parallel and orthogonal line, angle translation, circle, tangent, triangle, rectangle, polygons, ellipse, hyperbola and parabola.

The learners will adopt basic geometrical constructions, orthographic projections and sections of geometrical solids. They will learn three-dimensional presentation of geometrical solids and technical objects. They will practice the development of surfaces and drawing the sections and intersection of solids.

The learners will adopt the technical drawing skills by drawing different mechanical elements: welds, rivets, bolts, nuts, springs, wedges, axles, shafts, pulleys, gears etc. They will use drawing scales, specific views, details, rotated views, and specific symbols and dimensioning. They have to master the use of drawing equipment and media and adopt technical standards and symbols.

The learners will be familiar with workshop design, specific elements, tolerances and roughness. They will learn specific symbols for different technical fields with the purpose of making or understanding sketches.

This unit will provide learners with knowledge and skills which will enable them to understand the building construction drawings in orthographic projections or working sketches, understand the space dimension and positional settings in the selected area, and compare the built environment with elements of the structure as shown in the drawings.

In the construction industry, different drawings are used for presenting the building, crafts-work, installations, details, sections etc. The learners have to be familiar with these presentations in order to understand and participate in engineering communication.

The use of standard modern equipment and techniques is emphasised. Learners should also gain the basic understanding of computer aided drawing. They will learn how to adjust computer settings, adopt basic commands, draw the basic geometrical elements

and comprehend the modelling principle. The learners will learn how to prepare themselves for upgrading the knowledge using literature and Internet.

Learning Outcomes

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

1. *Draw geometrical structures.*
2. *Recognise and interpret projections, sections and three dimensional drawings.*
3. *Produce simple drawings of mechanical elements.*
4. *Produce workshop drawings and sketches.*

ETW&F-306-1404: Fabrication Technology

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit is designed to provide learners with the knowledge of fabrication of simple metal elements and structures. They will learn about the building of metal structures by cutting, bending, and assembling processes.

Learners will learn about the cutting processes by sawing, shearing, or chiselling in manual and powered variants. They will learn about torching with hand-held torches and via numerical control (CNC) cutters. Furthermore, they will become familiar with bending done by hammering (manual or powered) or via press brakes and similar tools. And finally, learners will also learn about assembling by welding, binding with adhesives, riveting and threaded fasteners.

Learners will be familiar with steel, aluminium and copper and their properties. They will learn about different material identification and how to compare its properties. Learners will also learn about the starting materials for fabrication: structural steel and sheet metal, along with the welding wire, flux, and fasteners that will join the cut pieces. They will learn about plate material, thin sheets materials, pipes, circular forms, U bends, and right-angle bends.

Learners will learn to organize simple joining procedures and individually perform joining works taking into account safety regulations. They will learn how to read typical workshop drawing and transfer it into practice.

In addition, learners will learn about different techniques of pipe joining, types of joints and joints preparation. They will learn capillary and compression fitting, pressure and vacuum gauges, removing gases, spring supports, anchors and stops, cathodic protection, flanges, blinds and spacers.

The unit will acquaint them with basic properties of welding joints, stresses and strains in welding joints as well as faults and their rectification.

Learners will also learn how to produce templates, how to make use of standard parts and tools, and how to produce and install simple parts of structures and pipe runs. Finally, learners will become aware of basic reasons for metal corrosion, its prevention and protection.

Learning Outcomes

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

1. *Describe the range of common methods used in fabrication engineering.*
2. *Select metals for a given application.*
3. *Determine the tolerances and bending allowance for fabricated forms.*

ETW&F-306-1406: Welding and Fabrication Practice

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit is designed to enable learners to organise the workplace in accordance to operation's plan of fabrication.

Learners will gain basic skills in cutting of metal elements by sawing, shearing, abrasive cutting and cutting by torches. They will practice metal bending by hammering and press brakes. They will practice using drilling tools, files and other fabrication tools, nibblers, guillotines, power punch. Learners will also learn steelwork assembling by welding, binding with adhesives, and riveting and threaded fasteners. They will use nuts and bolts, washers, spanners and drifts in bolted connections.

Learners will learn about access platforms, decking, walkways, stairways, ladders, railings, support-saddles, brackets, cleats, and frameworks and will acquaint themselves with gates, guards, barriers, fencing and cages.

Learners should also improve their welding skills and learn how to deal with practical fabrication tasks. Furthermore, they will learn how to ensure that welding processes are carried out in all positions using single and double V-shape joints.

The unit will also provide learners with the knowledge of dealing with practical situations to realign joints and control the welding gap if increased. Learners will also learn how to make use of metal inert gas welding after adopting its principles and techniques.

In this unit, learners will also be taught how to deliver the knowledge of oxy-acetylene gas welding and cutting techniques and procedures, how to use and handle flame cutting torches, about factors affecting product results and basics of bending and straightening.

Finally, preparation and use of equipment, tools and materials will be delivered through production of prefabricated steelwork.

Learning Outcomes

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

1. *Prepare equipment and tools for working out a steelwork.*
2. *Use equipment safely for fabricating steelwork.*
3. *Produce fabricated steelwork.*

ETW&F-306-1701: MMA Welding Technology and Practice

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit is designed to provide learners with knowledge and basic skills in MMA welding through a combination of theory, practical learning and workshop experience. Learners will learn how MMA welding devices and equipment function and how to prepare basic material, adjust the electric arc function and prepare the work place for safe and correct welding. This unit will raise awareness on the hazards in the process of welding and the importance of protection. Learners will learn how to use a variety of personal protective clothing and equipment. They will familiarise with electrical insulation, welding lead, fire and burns, arc-radiation, visible light, infra-red and ultraviolet light and electrical shock.

Learners will prepare the joint to be welded, learn how to produce a T-joint in horizontal and vertical position in two and three runs, and visually check the joint and its measurements. Learners will also learn how to prepare the square butt joint, the butt weld I-shape joint, how to weld joint on both sides and how to control check the joint. In addition, they will understand how and what to prepare for making a V-shape welded joint in the horizontal and vertical position.

Learners will have the opportunity to compare MMA with metal inert gas and Tungsten gas welding. They will learn about heat distribution, distortion and weld defects and other types of welding faults and errors and how to avoid them. They will gain knowledge about welding quality testing.

Learning Outcomes

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

1. *Identify hazards associated with MMA welding.*
2. *Prepare and use equipment and materials for MMA welding whilst applying appropriate terminology.*
3. *Produce welded joints and cuts using MMA welding process.*
4. *Check the weld quality produced by MMA welding.*

ETW&F-306-1702: TIG Welding Technology and Practice

Unit level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning hours: 150

Unit Description

This unit is designed to provide learners with knowledge and professional welding terminology, welding principles and techniques related to TIG welding. The learners will understand the risks of welding process, the effects of welding processes and health hazards associated with different types of welding. They will adopt the standard symbols in drawings for welded elements.

Learners will learn about function of a TIG welding machine. They will deal with the arc voltage, welding current, shielding gases and their influence.

Learners will gain knowledge about welding joints, elements, shapes and dimensions. They will learn about the function of the electrical arc, additional welding materials, and the transfer of melted material within the welded joint.

Learners will also have the opportunity to compare manual metal arc, metal inert gas and basics in Tungsten gas welding.

The unit will explain the types of welding faults and errors, technological, chemical and human factors as well as principles of avoiding such faults in TIG welding. Learners will understand the heat distribution, distortion control and weld defects.

Learning Outcomes

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

1. *Identify hazards associated with TIG welding.*
2. *Prepare and use equipment and materials for TIG welding and apply appropriate terminology.*
3. *Produce welding joints and cuts using TIG welding process.*
4. *Check the weld quality produced by TIG welding.*

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 intellettuali, 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 jhoss 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' grajjiet 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, fehmi u opinjonijiet permezz tal-qari.
3. Jaffrontaw sitwazzjonijiet f'kuntast ta' konverżazzjoni u jitekellmu fuq suġġetti li huma familjari jew ta' interess personali kif ukoll marbuta mad-dinja ta' kuljum u l-qasam tax- xogħol.
4. Jiformolaw 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. Jhaddmu 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*