



# MCAST

Malta College of Arts, Science & Technology

MQF Level 3

Key Skills

Units Specification

## **Current Approved Programme Structure**

<b>Unit Code</b>	<b>Unit Title</b>	<b>ECVET</b>
CDKSK-304-1913	Individual and Social Responsibility	4
CDKSK-304-1921	Mathematics	4
CDKSK-304-1922	English	4
CDKSK-304-1923	Malti	4
CDKSK-304-1924	Information Technology	4
CDKSK-304-1925	Science	4
<b>Total ECVET</b>		<b>24</b>

## **Unit: CDKSK-304-1913 - Individual and Social Responsibility**

**Unit level (MQF):** 3

**Credits :** 4

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### **Unit description**

In this unit, learners will continue to explore their strengths and their areas for improvement through a closer focus upon their behavioural tendencies, ultimately being able to determine and consolidate their career path. At this stage the learners would have already been equipped with the basic personal effectiveness competencies and will keep developing their intra/interpersonal skills.

This key skill will assist learners in focusing upon their self-management, aiming to increase the awareness of their priorities. Consecutively, this will offer the opportunity to the learners to delve into numerous topics promoting self-control, such as time/financial management, resilience & perseverance, delayed gratification, and more.

Learners will delve further into the realities of healthy and unhealthy relationships. This will be achieved through the exploration of values which make up individuals' priorities and targets.

Having acquired all the above skills and knowledge, learners will have the ability to understand that in life one is surrounded by choices, which constantly accompany us on a daily basis. Hence, learners will also become increasingly aware of how choices and decisions impact themselves and the others.

The delivery of the weekly class-based contact hours including theory and hands-on practice will be paired with the realisation of an additional 15 hours of community service, where the students will make use of content being acquired within the classroom and put into practice.

## Learning Outcomes

On completion of this unit learners should be able to:

1. *Evaluate strengths and areas for improvement to determine possible career paths through a personal action plan;*
2. *Understand the importance of self-management to reach own goals successfully;*
3. *Outline the characteristics and values needed for the formation of healthy relationships;*
4. *Carry out community service for the benefit of a particular sector in society;*
5. *Understand the importance of community service.*

## Unit: CDKSK-304-1921 - Mathematics

Unit level (MQF): 3

Credits : 4

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### 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

On completion of this unit learners should 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.*

## Unit: CDKSK-304-1922 - English

**Unit level (MQF):** 3

**Credits :** 4

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### 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

On completion of this unit learners should 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.*



## Unit: CDKSK-304-1923 - Malti

Unit level (MQF): 3

Credits : 4

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### Ir-Razzjonal

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' taġħlim. 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 kapaċi:

1. *Jifhmu diskors standard li wieħed juża u jiltaqa' miegħu fil-ħajja ta' kuljum, kif ukoll jifhmu suġġetti marbuta ma' ġrajjet 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'kuntast ta' konverżazzjoni u jikkellmu 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' taġħlim, li jmorru lil hinn mil-lingwa.*

## Unit: CDKSK-304-1924 - Information Technology

Unit level (MQF): 3

Credits : 4

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### Unit description

This unit aims to develop basic computer knowledge and skills needed in real-life situations. In a supportive environment, the student 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 in order to use common computer applications necessary during their studies. By the time students 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 students will achieve a broad knowledge of ICT and will be able to use ICT to carry out a number of increasingly complex tasks. In particular, 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 in order to build and maintain an online presence.

### Learning Outcomes

On completion of this unit learners should 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. *Demonstrate competence in using presentation software;*
4. *Setup and use of online collaboration tools;*
5. *Demonstrate competence in using internet presence management tools.*

## Unit: CDKSK-304-1925 - Science

**Unit level (MQF):** 3

**Credits :** 4

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### 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 learners should 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.*