



MCAST

MQF/EQF Level 3

**IT3-01-21
IT3-01-21G**

Diploma in ICT

Course Specification

Course Description

The ICT industry is a dynamic sector which requires a number of technical people to cope with the constantly evolving computing technologies. IT persons offer technical support in these technologies and help other IT specialists in their daily job. The Diploma in ICT is the first step in a block of a three-year training programme, designed to provide the necessary skills to work in the computing industry. At this level of study, learners will be introduced to fundamental subjects in the networking, software development, web development and multimedia areas. At the end of the course, learners will be able to use modern computer and multimedia systems and networks in the workplace

Programme Learning Outcomes

At the end of the programme the learner is able to

- 1. Use modern computer systems and computer networks in the workplace.*
- 2. Use multimedia systems and web development to satisfy requirements.*
- 3. Use programming skills and database manipulation techniques.*
- 4. Apply ICT knowledge and skills independently.*

Entry Requirements

MCAST Foundation Certificate

OR

2 SEC/O-Level/SSC&P (Level 3) passes

Compulsory: One subject from Mathematics or Computer Studies or Physics or IT VET

Applicants with a good working knowledge of English Language will benefit from a positive learning experience throughout the course.

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 hours

Mode of attendance: Fully Face-to-Face Learning

Duration: 1 Year

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

Target group: Learners who have completed compulsory education.

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 Ghonoq 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, Ghajnsielem

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 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
ITCGR-306-2001	Computer Graphics	6	YEAR
ITDBS-306-2001	Database Design and Development	6	YEAR
ITSYS-306-2001	Computer Systems	6	YEAR
ITDBS-306-2002	Web Design and Development	6	YEAR
ITNET-306-2001	Computer Networks	6	YEAR
ITSFT-306-1603	Programming	6	YEAR
CDKSK-304-1922	English	4	YEAR
CDKSK-304-1921	Mathematics	4	YEAR
CDKSK-304-1923	Maltese	4	YEAR
CDKSK-304-2103	Community Social Responsibility	4	YEAR
CDKSK-304-1925	Science	4	YEAR
CDKSK-304-2108	Information Technology	4	YEAR
Total ECTS		60	/

ITCGR-306-2001: Computer Graphics

Unit Level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit presents a general introduction to digital graphics systems. It enables learners to explore techniques associated with the development of an interactive graphics product. The learners will learn about graphics system components, their roles and characteristics, digital media formats, publishing and output. Learners will be familiar with the basic types and characteristics of image files formats optimized for various purposes. In order to be able to apply the knowledge obtained, learners will learn how to use graphics hardware components and graphics application software for media processing. By combining text, images, animations, and applying filters and effects, the learners will be able to present a graphics project.

Learning Outcomes

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

1. *Understand different types of digital media sources.*
2. *Use common media sources to gather graphics project content.*
3. *Process digital media with appropriate tools.*
4. *Present a graphics project.*

ITDBS-306-2001: Database Design and Development

Unit Level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit is an introduction to databases and covers the basic concepts. By the end of this unit the learner will have the required skills to identify the main elements of a database, be able to plan and implement a database for a simple scenario, extract data from the database using queries, and also allow user interactivity through forms and reports. Learners will consider the validation and verification methods that can be implemented to ensure that data stored in a database is as accurate as possible.

Learning Outcomes

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

1. *Understand the basic concepts of databases.*
2. *Plan and implement a database using a DBMS.*
3. *Create queries to extract required information.*
4. *Create forms with data validation and reports.*

ITSYS-306-2001: Computer Systems

Unit Level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit will provide learners with a general overview of computer systems. Learners will improve their knowledge related to computer functionality and architecture, focusing on a description of a modern computer and how different components of a computer system work together. Learners will also have the opportunity to explore how the operating system, the application software and the hardware components, cooperate in order to make computer operational.

At the end of the unit learners will be able to configure and troubleshoot a personal computer system, to choose an appropriate computer system, practice installation and adjustment of an operating system and troubleshoot problems.

Learning Outcomes

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

1. *Describe the structure, types and parts of different computer systems.*
2. *Perform basic computer logic and arithmetic operations.*
3. *Describe different types of computer software.*
4. *Perform basic installation, configuration, and troubleshooting of computer systems and software.*

ITDBS-306-2002: Web Design and Development

Unit Level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

Learners will be introduced to design, creation, and maintenance of web pages and websites. This unit will enable learners to achieve basic understanding of the principles and practice of professional web design and development. One of the tasks is to improve judgmental skills to evaluate website useability. Learners will also learn about web design standards and why they are important. They will gain the skills and project-based experience needed for web design and development using a variety of strategies and tools.

Learners will learn how to structure web pages using HTML how to control presentation using CSS and according to the World Wide Web Consortium (W3C) recommendations. Learners will become familiar with the uses of a web server and creation of websites using a variety of web technologies.

Initially, learners will use popular non-coding (drag and drop) applications, whereas as they progress along the course they will be exposed to manual coding of HTML and CSS scripting.

Learning Outcomes

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

1. *Describe the use of a web server and how websites work.*
2. *Plan and design a website according to specific requirements.*
3. *Implement a website according to specification.*
4. *Test and deploy a website on a live web server.*

ITNET-306-2001: Computer Networks

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 understand the use and features of computer networks and their effect on small organisations. The unit covers the features, services and components to set up a small network for personal and commercial use. In this unit learners will be acquainted with the basic terminology related to computer networks, topology, scale and the organization of modern networks.

The basic concepts of wired and wireless networks, different topologies and implementation models will also be covered. The unit deals with general issues related to computer networks and the impact the latter have on technology and society. Learners will be guided through different types of network equipment.

This unit will also cover basic device configuration, this being an important feature of every LAN implementation. Learners will acquire basic skills in operating system configuration and network diagnostics which will help them to easily install and configure a basic LAN connection.

Learning Outcomes

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

1. *Understand the basic concepts of computer networking.*
2. *Set up and implement small wired and wireless LAN.*
3. *Configure network interfaces and operating system networking features in modern operating systems.*
4. *Setup and share network resources.*

ITSFT-306-1603: Programming

Unit Level (MQF/EQF): 3

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit introduces the basic principles of Software Development starting from identifying the problem to solving and designing solutions. Learners will learn how to implement an algorithm in programming language. They will also be able to build the source code and carry out appropriate testing, debugging and maintenance. Various fundamental programming aspects will also be covered. This includes data types, operators, expressions, standard input and output as well as program control methods-conditions, loops, etc. Learners will be able to make use of modular structure with functions. They will also be able to apply mechanisms used to pass information between functions. The learners will also carry out testing and debugging mechanisms to their programs.

Learning Outcomes

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

1. *Specify the requirements for a basic software design project.*
2. *Design a specified software solution using appropriate visual representations.*
3. *Implement a software solution using different programming techniques.*
4. *Carry out testing of the final solution.*

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 the 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-304-1921: 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

On completion of this unit the learner 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

On completion of this unit the learner 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: Malti

Il-Livell tal-Unità: (MQF/EQF): 3

L-Għadd ta' Kreditu: 4

Mod ta' Tagħlim: Preżenti

Total ta' Sigħat ta' Tagħlim: 100

Deskrizzjoni tal-Unità

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' 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, fehmi 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' 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 the learner will be able to:

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

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 learner 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.*