

MCAST PROGRAMMES - PUBLIC INFORMATION TEMPLATE (FULL TIME)

Institute	Institute of Applied Sciences
Department	-

Programme Title	Advanced Diploma in Environmental Sustainability				
Course Code <i>To be filled in by Admissions Dept.</i>	AS4-W03-23		If the programme includes a WBL element, How is it accredited?		Placement
MQF/ EQF Level	Level 4	Type <i>(refer to Appendix 1 for Parameters)</i>	Qualification	Awarding Body	MCAST – Malta College of Arts, Science and Technology
Accreditation Status		Accredited via MCAST’s Self Accreditation Process (MCAST holds Self-Accrediting Status as per 1st schedule of Legal Notice 296/2012)			
Mode of Delivery	Face to Face	Duration <i>(Academic Years or Semesters)</i>	2 Years	Mode of Attendance	Full-Time
Total Number of Credits	120 credits	Total Learning Hours <i>(25 Total Learning Hours for each ECTS)</i>		3000 hours	
Target Audience	Ages 16 - 65	Target Group <i>(the type of learners that the educational institution anticipates joining this programme)</i>	Students exiting compulsory education		
Programme Fees	There are no fees applicable to Maltese and other EU Nationals (as will be evidenced by their Identity Document) Fees apply for other International Applicants... for fee information and any related updates it is best to communicate with MG2i International through applyinternational@mcast.edu.mt One may consider checking about possible eligibility or otherwise for any exemption from fees by contacting the relevant section within MEYR (Floriana) – or visit the servizz.gov.mt website here				
Date of Next Student Intake	For further information regarding upcoming student intake and applications time windows for same kindly click here				
Language of Instruction	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.				
Application Method	Applications to full-time courses are received online via the College Management Information System. Applicants can log-in using Maltese Electronic ID (eID) in order to access the MCAST Admissions Portal directly and create one’s own student account with the identity being verified electronically via this secure service. Non-EID applicants need to request account creation though an online form after that they confirm that their local Identification Document does not come with an EID entitlement. . Once the identity is verified and the account is created on behalf of the				

	<p>applicant, one may proceed with the online application according to the same instructions applicable to all other applicants.</p> <p>For more information about how to apply online for a course at MCAST, please visit: https://mcast.edu.mt/how-to-apply-online-2/</p>
Information for Non-EU Citizens	<p>Non-EU candidates require a study visa in order to travel to Malta and join the course applied for (on a Full Time delivery mode). For further information re study-visa please access https://www.identitymalta.com/unit/central-visa-unit/.</p> <p>Further information International / TCN applicants should take note of before requesting to being considered for a programme of studies at MCAST, can be obtained through the respective FAQ found on https://mcast.edu.mt/important-information/</p>
IMPORTANT note to Non-EU Nationals / TCNs	<p>In instances where a TCN is applying for an MCAST programme of studies which includes Apprenticeship / Placement / Internship, it is the applicant's responsibility to check with the relevant Maltese Authority whether one would be eligible to have the necessary permits to be able to carry out the accredited Apprenticeship / Placement / Internship, success from which is expected in order to be able to successfully complete the selected programme of studies. Further information can also be obtained through the respective FAQ found on:</p> <p>https://mcast.edu.mt/important-information/</p>
Address where the Programme will be Delivered	<p><i>MCAST has four campuses as follows:</i></p> <p>MCAST Main Campus Triq Kordin, Paola, Malta</p> <p><i>All courses except for courses delivered by the Institute for the Creative Arts, the Centre of Agriculture, Aquatics and Animal Sciences and the Gozo Campus are offered at the Main Campus address (above).</i></p> <p><i>Courses delivered by the Institute for the Creative Arts, the Centre of Agriculture, Aquatics and Animal Sciences, or the Gozo Campus, are offered in one of the following addresses as applicable:</i></p> <p>Institute for the Creative Arts Mosta Campus Misraħ Għonoq Tarġa Gap, Mosta</p> <p>Institute of Applied Sciences Centre of Agriculture, Aquatics and Animal Sciences, Luqa Road, Qormi</p> <p>Gozo Campus J.F. De Chambray Street MCAST, Għajnsielem Gozo</p> <p><i>In the case of courses delivered via Online Learning, students will be following the programme from their preferred location/address.</i></p> <p><i>Programmes delivered via Blended Learning, and which therefore contain both an online and a face to face component shall be delivered as follows:</i></p>

	<ul style="list-style-type: none"> ○ Face to Face components – as per above address instructions ○ Online components – from the student's preferred address.
Course Description <i>(Refer to Programme Specification)</i>	<p>Awareness of environmental sustainability and related environmentally-based sectors is growing rapidly in Europe, with the Maltese government recently introducing various laws and standards on reducing global warming, climate change, low carbon emissions and the need for conservation in general. This programme of studies includes topics related to environmental monitoring, even within manufacturing industries, that are fundamental to the development of environmental awareness, and provides the necessary practical skills and techniques. Employment is typically within environmental sustainability sector-based organisations, as well as within medium to large organisations that face many environmental challenges, such as waste management, alternative energy sources, traffic management and pollution, on a daily basis.</p>
Deskrizzjoni tal-Kors <i>(Refer to Programme Specification)</i>	<p>Il-kuxjenza dwar is-sostenibbiltà ambjentali u s-setturi relatati li huma bbażati fuq l-ambjent qed tikber b'mod rapidu fl-Ewropa, u dan l-aħħar il-gvern Malti introduċa diversi liġijiet u standards dwar it-tnaqqis tat-tiżnin globali, it-tibdil fil-klima, il-livell baxx ta' emissjonijiet tal-karbonju u l-ħtieġa għall-konservazzjoni b'mod ġenerali. Dan il-programm ta' studji jinkludi suġġetti relatati mal-monitoraġġ ambjentali, anke fi ħdan industrij tal-manifattura, li huma fundamentali għall-iżvilupp ta' kuxjenza ambjentali, u jipprovdi l-ħiliet u t-teknika Prattika neċessarji. L-impjeg huwa tipikament f'organizzazzjonijiet ibbażati fuq is-settur tas-sostenibbiltà ambjentali, kif ukoll fi ħdan organizzazzjonijiet medji sa kbar li jiffaċċjaw ħafna sfidi ambjentali fuq bażi ta' kuljum, bħall-immaniġġjar tal-iskart, is-sorsi alternattivi ta' enerġija, il-ġestjoni tat-traffiku u t-tniġġis.</p>
Career Opportunities:	<p>Project Technical Assistant, Environmental Technologist, Environmental Analyst</p>
Entry Requirements <i>(Refer to Prospectus / Course Page on MCAST website)</i>	<p>Internal Progression Route. ... MCAST Diploma in Applied Science or MCAST Diploma in Mechanical Engineering or MCAST Diploma in Engineering (Electronics) or Any MCAST MQF Level 3 Diploma, whilst being in possession of the compulsory subjects as indicated hereunder</p> <p>OR</p> <p>4 SEC / SSC&P or equivalent with a Pass Grade / Level 3, of which three (3) subjects must be from the following list: English Language, Mathematics, Physics, Chemistry, Biology, Design and Technology, Computer Studies, Environmental Studies</p>
Other Notes related to this Programme, and which are to be taken note of	<p>-</p>
Programme Learning Outcomes	<p>At the end of the programme the learner will be able to:</p> <ol style="list-style-type: none"> 1. Understand and apply the principles of sustainable development. 2. Carry out justification exercises and feasibility studies leading to the efficient and effective utilization of resources.

(Refer to Programme Specification)	<p>3. Understand current legislation and best practice relevant to waste, pollution and efficiency in resources utilisation.</p> <p>4. Implement an investigative environmental sustainability project.</p>
Teaching, Learning and Assessment Procedures	<p>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.</p> <p>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').</p> <p>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.</p> <p>Students may however be required to provide consumable material for use during practical sessions and projects unless these are explicitly provided by the College.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The distribution of marks and assessment mode depends on the nature and objectives of the unit in question.</p> <p>Coursework shall normally be completed during the semester in which the Unit is delivered.</p> <p>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.</p> <p>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/</p> <p>The Programme Regulations pertaining to this Programme's MQF/EQF level available at: link https://www.mcast.edu.mt/college-documents/, apply.</p>
Grading System	<p>All MCAST programmes adopt a Learner-centred approach through the focus on Learning Outcomes. The assessment of MCAST programmes is criterion-referenced</p>

	<p>and thus assessors are required to assess learners' evidence against a pre-determined set of Learning Outcomes and Assessment Criteria.</p> <p>For a student to be deemed to have successfully passed a unit, a minimum of 50% (grade D) must be achieved.</p> <p>All full time 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'.</p> <p>Work-based learning units (where applicable) are graded on a Pass/Fail basis only.</p> <p>Some units which follow industry standards and regulations may also be graded on a Pass/Fail basis as per programme regulations referred below.</p> <p>Detailed information regarding the grading system may be found in the Programme Regulations pertaining to this programme's MQF/EQF Level available at: https://www.mcast.edu.mt/college-documents/ (Refer to DOC 003, 004 and 005)</p>
Exit Point (where and as applicable)	<p>Where a student will not make it to the Final Certification achievable from this Programme of Studies (as per Programme Regulations), one might wish to look into Exit Point possibilities as may be applicable to this programme for studies. Further information, is available at https://www.mcast.edu.mt/college-documents/, kindly refer to <i>DOC 077 Procedure for the processing of Claims for Certificates at Interim Exit Points</i>.</p>
Contact details for Further Learning Opportunities	<p>The MCAST Career Guidance Team, offers the service of qualified and experienced Career Advisers who will be very willing to discuss with potential applicants the course which best achieves one's career ambitions, as well as exploring one's education route, or similar.</p> <p>MCAST Career Guidance Tel: 2398 7135/6 Email: career.guidance@mcast.edu.mt</p>
Regulatory Body/ Competent Authority Contact Details <i>(where applicable - in the case of a programme leading to Regulated Profession)</i>	Not Applicable

Programme Structure	Unit Code	Unit Title	ECTS	Year	Semester
	ASENV-406-1503	Basic Environmental Impact Assessment and Water/Energy Auditing	6	1	Year
	ASCHM-406-1520	Basic Chemistry for Environmental Technicians	6	1	Year

	ASSDV-406-1502	Sustainable Transport	6	1	Year
	ASENV-406-1502	Understanding the Principles of Wildlife Populations, Ecology and Conservation	6	1	Year
	ASWBL-403-2005	Work Related Experience in Environmental Sustainability Sector 1	3	1	Year
	ASPRJ-403-2006	Investigation Project in Environmental Sustainability 1	3	1	Year
	ASENV-406-1506	Understanding Water Quality	6	1	Year
	ASAPS-406-1510	Scientific Practical Techniques	6	1	Year
	CDKSK-406-2319	English	6	1	Year
	CDKSK-406-2320	Mathematics	6	1	Year
	ASSDV-406-1501	Understanding the Principles of Sustainable Development	6	1	Year
	ASENV-406-1507	Pollution Control and Management	6	2	Year
	ASEGY-406-1501	Energy Management	6	2	Year
	ASENV-406-1504	Introduction to Waste Management	6	2	Year
	ASENV-406-1505	Understanding the Principles of Physical and Biological Environmental Processes	6	2	Year
	ASWBL-403-2006	Work Related Experience in Environmental Sustainability Sector 2	3	2	Year
	ASPRJ-409-2007	Investigation Project in Environmental Sustainability 2	9	2	Year
	ASSDV-406-1503	Sustainable Construction	6	2	Year
	ASGEO-406-1501	Geology of Natural Resources	6	2	Year
	CDKSK-404-2325	Entrepreneurship Essentials	4	2	A
	CDKSK-402-2324	Community Social Responsibility	2	2	A
	CDKSK-406-2322	Information Technology	6	2	Year

Allocation of Total Learning Hours (per Unit)	The total learning hours required for each unit or module are determined as follows:			
	Credits (ECTS)	Indicative contact hours ¹	Self-Learning and Assessment Hours ³	Total Student workload (hrs) ²
	1	5 – 10 hrs	20 - 15 hrs*	25 hrs
	2	10 – 20 hrs	40 - 30 hrs*	50 hrs



	3	15 – 30 hrs	60 - 45 hrs*	75 hrs
	4	20 – 40 hrs	80 - 60 hrs*	100 hrs
	6	30 – 60 hrs	120 - 90 hrs*	150 Hrs
	9	45 – 90 hrs	180 - 135 hrs*	225 hrs
	12	60 – 120 hrs	240 - 180 hrs*	300 hrs
<i>Note: The 'Self-Learning and Assessment Hours'³ amount to the difference between the 'Indicative Contact Hours'¹ and the 'Total Student Workload'²</i>				

APPENDIX 1

MINIMUM CREDITS FOR QUALIFICATIONS AT DIFFERENT LEVELS

MQF Level	Minimum ECTS Required for a Qualification*
8	
7	30
6	180
5	30
4	30
3	60
2	60
1	40

* Programmes assigned fewer ECTS than indicated will be classified as Awards.

Reference: Fig.1: p48, Malta Further and Higher Education Authority (MFHEA) (October 2024).
Referencing Report, 5th Revised Edition.

APPENDIX 2

EXAMPLES OF QUALIFICATION TYPES AT A SPECIFIC MQF LEVEL

MQF Level	Examples of qualification types at a specific MQF level (The list in this column is not exhaustive)	Number of ECTS *
8	Doctoral Programmes:	
	PhD	N/A
	Professional Doctorate	180
7	Master's Degree	90
	Postgraduate Diploma	60
	Postgraduate Certificate	30
6	Bachelor's Degree	180
	Bachelor's Honours	240
5	Undergraduate Higher Diploma	90
	Undergraduate Diploma	60
	Undergraduate Certificate	30
	VET Level 5	60
4	Advanced Diploma	120
	Pre-Tertiary Certificate	30 - 60
	MATSEC Matriculation Certificate (Advanced and Intermediate)	N/A
	VET Level 4	120
3	Certificate	60
	MATSEC Secondary Education Certificate	N/A
	VET Level 3	60
2	Foundation Certificate	60
	MATSEC Secondary Education Certificate	N/A
	VET Level 2	60
1	Introductory Certificate	40
	VET Level 1	40

* Programmes assigned fewer ECTS than indicated will be classified as Awards.

Reference: Fig.2: p48, Malta Further and Higher Education Authority (MFHEA) (October 2024).
Referencing Report, 5th Revised Edition.

ASSDV-406-1501: Understanding the Principles of Sustainable Development

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will introduce students to the topical subject of sustainable development, with the aim of fostering a comprehensive understanding of the multi-faceted, complex and sometimes controversial nature of this concept. The origins of ideas of sustainability and sustainable development will be briefly explained, together with a review of how these have evolved over time, through references to key events in history. Current sustainability challenges will be discussed, with reference to both local and global scales.

The various principles that underpin the concept of sustainable development will be explored in detail throughout this unit. The unit will also focus on the key pillars of sustainability, namely environmental, socio-cultural and economic systems. The importance of prudent resource and environmental management in relation to sustainable development will be explained, with an overview of the critical support role provided by environmental systems. Similarly, the influence of social and economic factors on sustainability will be discussed, as will interactions between these three 'pillars'. Finally, the unit will provide an overview of ways in which we can make progress towards improved sustainability and sustainable development, also providing an overview of initiatives to promote sustainability.

This Unit is relevant to learners wishing to improve their understanding of sustainability, and of its relevance to environmental conservation. By the end of the unit, students will be able to explain the meaning of the term 'sustainable development', while appreciating the complexities of this concept. Students will also be able to explain how ideas of sustainability became influential and evolved over time, and will be able to discuss the important link of sustainable development to world environmental, economic and socio-cultural systems. The knowledge gained in this unit will allow students to reflect critically on the concept of sustainability and on its local and global importance.

Learning Outcomes

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

1. *Explain fundamental concepts of sustainability and sustainable development.*
2. *Describe the influences of environmental, socio-cultural and economic systems on sustainability.*
3. *Recognize and describe initiatives that aim to foster sustainable development.*
4. *Reflect critically on the goal of sustainability and on how this can be achieved.*

ASENV-406-1503: Basic Environmental Impact Assessment and Water/Energy Auditing

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will provide students with an introductory understanding of environmental impact assessment (EIA) and environmental auditing (EA) concepts and processes.

Environmental impacts will first be explained with reference to changes from baseline conditions. The importance of understanding and mitigating environmental impacts in line with key sustainable development principles, notably the precautionary principle and adaptive management will be explained, as will the rationale for EIA and EA. The goals and scope of both these processes will be outlined. Following this, typical EIA and EA processes will be described, enabling students to understand the logical sequence of these processes and the way in which each step builds on previous ones. The unit will also familiarise students with relevant instruments relating to EIA and EA, including the European Union's EIA Directive and its transposition into local legislation, the EU Eco-Management and Audit Scheme (EMAS), and ISO 14001 certification. Finally, the unit will take a closer look at the auditing of water and energy, providing an overview of the key parameters addressed by these two processes.

The Unit is relevant to learners wishing to develop basic comprehension of EIA and EA processes. On completion of the unit, learners will be conversant with relevant terminology, and will be familiar with the various stages of both processes. Students will also be able to understand and explain why EIA and EA are fundamental to sustainable development and environmental protection, as also how and why EA can be beneficial to the functioning of organisations.

Learning Outcomes

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

- 1. Explain the rationale for assessment and auditing of environmental impacts.*
 - 2. Describe the fundamentals of Environmental Impact Assessment (EIA).*
 - 3. Describe the fundamentals of environmental auditing.*
 - 4. Identify and describe basic principles of water and energy auditing.*
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ASCHM-406-1520: Basic Chemistry for Environmental Technicians

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit assumes knowledge of basic chemistry, up to SEC (O Level Standard). However, the initial part of the course shall cover all the introductory chemistry that is normally delivered in SEC classes.

Learners shall be first exposed to the principles of chemistry that are essential to grasp the applications of chemistry to environmental studies. All the basic principles of chemistry shall be related to environmental applications wherever possible.

Environmental Chemistry is the science of reactions and pathways of matter that influences mankind and his environs. It deals with the air we breathe, the water we drink, the soil that grows our food. There is a tremendous concern today about the uses—and particularly the misuses— of chemistry as it relates to the environment, ranging from individual exposures to toxicants to phenomena on a global scale that may cause massive, perhaps catastrophic, alterations in climate.

The unit shall deal with the origins, transport, reactions, effects, and fates of chemical species in the water, air, earth, and living environments and the influence of human activities thereon.

Basic Chemistry for Environmental Technicians (Level 4), provides a framework for the study of chemistry, dealing with basic chemical concepts such as organic chemistry, chemical analysis, physical chemistry and toxicological chemistry, which directly relate to environmental chemistry. The objective is to break down the barriers that tend to compartmentalize chemistry by laying two major goals:

- a) to provide an overview of chemical science within an environmental chemistry framework,
- b) to provide the basics of environmental chemistry for technicians.

A crucial part of chemistry is an understanding of the nature of chemical compounds, the chemical formulas used to describe them, and the chemical bonds that hold them together. It is essential to know some things about the chemical reactions by which chemical compounds are formed. These are topics that are included in this unit in order

to give the student the essential concepts and terms required to understand more-advanced environmental chemical material.

Chemistry is responsible for the observed variation, processes such as ozone depletion, greenhouse effect and global warming, in Atmospheric Chemistry and Air Pollution.

Chemistry is required to understand the organic and inorganic chemical processes controlling the chemical composition of the aquatic environment and the fate of pollutants in the Aquatic Environment.

Chemistry controls the chemical and physical characteristics of soils Soil Chemistry, as well as the various ways in which soils are polluted.

Learning Outcomes

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

1. *Comprehend basic chemistry concepts as applied to environmental concepts.*
2. *Develop and enhance the essential skills and techniques required in the monitoring of environment chemical parameters.*
3. *Apply the skills and techniques required in recognising the risks to the air water and ground environment from natural and anthropogenic chemical parameters.*
4. *Apply the skills and techniques required in applied environmental chemistry decision making following monitoring and analysis.*

ASEGY-406-1501: Energy Management

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

As fossil fuel prices have been increasing drastically during the past few years, the cost of energy and its sustainability is undoubtedly a major global concern. In a world where energy consumption is on the increase, the term 'Energy Conservation' is by far more than a frivolous term.

Fossil fuel resources are depleting and as a result, their cost is continually increasing. Furthermore, their use is contributing to high levels of pollution and greenhouse gas emissions. These lead to very rapid climatic changes and thus affect undeniably the quality of human life. In this scenario, today more than ever, it has become increasingly important to develop energy efficient processes and it is imperative to seek for alternative energy resources other than conventional fuels, which are still the dominant energy source. Such possible alternative energy sources are renewable energies, which, as their name imply, are defined as energies derived from resources that are regenerative or for all practical purposes cannot be depleted. Types of renewable energy resources include moving water (hydro, tidal and wave power), thermal gradients in ocean water, biomass, geothermal energy, solar energy, and wind energy. Municipal solid waste (MSW) is also considered to be a renewable energy resource.

This unit is aimed to enable learners to be knowledgeable about various aspects regarding energy management. Learners will be exposed to legislation and international agreements concerning energy management. They will also learn strategies to identify key performance indicators in order to improve the energy efficiency of processes, and thus reducing the carbon footprint. Learners will also be able to devise and carry out an energy audit according to required specifications and will also be capable of monitoring and making recommendations for energy-saving measures.

By the end of this unit learners should be able to gain knowledge about energy management, be able to plan and carry out an energy management audit. They should also be capable of monitoring and targeting energy savings.

This study unit is suitable for learners wishing to gain and/or enhance their knowledge on energy management in general. This unit is aimed for learners wishing to increase their awareness on energy conservation, both on a personal and organisational level.

Learning Outcomes

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

1. *Recognise various aspects regarding energy management.*
2. *Devise an energy audit according to required specifications.*
3. *Perform an energy audit according to required specifications.*
4. *Monitor and make recommendations for energy reduction measures.*

ASENV-406-1504: Introduction to Waste Management

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

Mismanagement of waste is unsustainable, mainly because it squanders earth's resources and pollutes the environment. Yet, human activities, be they of a domestic or industrial nature, produce waste. Each year in the European Union alone approx. 3 billion tonnes of waste are generated.

Sustainable waste management addresses the challenges posed by waste by reducing the amount of waste that is produced, by recovering materials and energy from unavoidable waste, and by reducing the environmental impact related to its final disposal.

Sustainable management of waste benefits the economy of a country by reducing environmental degradation and by creating green jobs. However, in managing waste there are environmental risks. This is the reason why in the European Union the activity is tightly regulated by approx. 30 binding legislative instruments. Moreover, the process of regulating the waste sector is a dynamic one, with old legislation being reviewed and new legislation being adopted. This is challenging to the waste sector itself and to businesses that generate the waste.

For the above reasons, it is of the utmost importance that tomorrow's workforce be fully informed of the obligations and opportunities that are related to the waste sector.

This is a knowledge-based Unit and is designed to provide the students with basic knowledge on how waste can be sustainably managed and the legislative controls that are in place. The Unit also prepares those students who intend to further develop their knowledge on the subject.

Learning Outcomes

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

- 1. Identify the main factors related to the generation of waste.*
 - 2. Recognise the nature of waste and its effects on human health and the environment.*
 - 3. Outline the main legislative instruments related to the management of waste.*
 - 4. Review the waste hierarchy and selected techniques for managing waste.*
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ASSDV-406-1502: Sustainable Transport

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This is a skills based unit and will allow learners to demonstrate they have the necessary skills to be able to understand the term sustainability as applied to transport. Learners will be able to understand the importance of making the right choices when making use of transport facilities. They will also be able to understand our various means of transportation outside the concept of being carried away from point A to point B. Hence the concept of utilising alternative and more sustainable means of transport which are more environment friendly and which have a lower impact on the surrounding environment.

The Unit is relevant to learners wishing to further develop their knowledge about alternative and environmental friendly modes of transportation. On completion of the Unit learners will be able to distinguish between various forms of fuels and the impacts these have on our environment. They will be able to understand the benefits of reducing transport movements. They will also be able to choose the best mode of transport with the least environmental impact in different scenarios. They will be able to understand the relationship between modes of transport and the atmospheric gases found in our environment and the consequential effects these might have on our lives.

Learners will carry out fieldwork in order to better understand the correlation between vehicular movements and atmospheric pollution. This will be done through traffic counts at junctions and atmospheric pollution results. Learners will carry out fieldwork to obtain data about predominant modes of transport used at different times of the day and localities in the Maltese Islands.

Finally, learners should have the underpinning knowledge and understanding to recommend sustainable modes of transportation in different local scenarios.

Learning Outcomes

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

1. *Explain the relationship between fuel use, transportation and our wellbeing.*
 2. *Explain the impacts of transport.*
 3. *Explain the pros and cons of conventional and alternative modes of land transport.*
 4. *Explain how to make transportation sustainable.*
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ASENV-406-1502: Understanding the Principles of Wildlife Populations, Ecology and Conservation

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit introduces learners to the ecological concepts of populations and ecosystems and how these are applied in practice for environmental management and conservation. Awareness and understanding of the importance of ecology and conservation has increased in recent times, particularly due to the promotion of causes and campaigns for conservation and management of natural resources, to reduce human impact on the environment and ensure long-term environmental sustainability. This unit is therefore designed to enable learners to understand the basic principles of ecology and dynamics of wildlife populations, and how the application of such principles in different conservation strategies.

In this unit learners will develop an understanding of ecosystem ecology and population dynamics, with particular reference to natural changes in ecosystem components and population abundance of individual species, and how these are affected by different anthropogenic activities. Such knowledge will be related to the aspects of environmental conservation, with particular reference to the management of wildlife populations and their habitats. This will be linked to field studies of populations and habitat surveys, enabling learners to appreciate the role of such studies in providing the information on the status of species and habitats that is necessary to set conservation goals and guide management decisions.

Learning Outcomes

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

1. *Describe changes in global ecosystems.*
 2. *Examine population dynamics.*
 3. *Outline conservation strategies for wildlife and their habitats.*
 4. *Conduct a field study of habitats and wildlife populations.*
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ASENV-406-1505: Understanding the Principles of Physical and Biological Environmental Processes

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit is designed to introduce students to the physical and biological environmental processes that are fundamental to the functioning of planet Earth. The unit will first address the crucial role of energy as a driving force of Earth processes, before looking at the transfer of energy to planet Earth through the atmosphere. The second part of the unit will focus on the geological resources of planet Earth through a focus on the lithosphere, providing students with an explanation of how this operates through the rock cycle. The third theme of the unit will be the biosphere, with a focus on the necessities of life and on the fundamental processes that occur in all ecosystems. Finally, the unit will consider the hydrosphere and the crucial role of water for life.

The Unit is relevant to learners wishing to develop a basic understanding of Earth processes. On completion of the Unit, learners will have intermediate level competence in this subject area and should be able to draw links between the different physical and biological processes discussed, to understand how these are all interconnected. The unit will also familiarise students with the way in which these processes determine various physical characteristics of the Maltese Islands.

Learning Outcomes

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

- 1. Describe the scientific principles and processes that influence energy transfer and the atmosphere as part of the earth-atmosphere system.*
 - 2. Describe physical and biological processes occurring within the lithosphere.*
 - 3. Describe physical and biological processes occurring within the biosphere.*
 - 4. Recognise how water is managed and used within the hydrosphere.*
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ASWBL-403-2005: Work Related Experience in Environmental Sustainability Sector 1

Unit level (MQF/EQF): 4
Credits: 3
Delivery Mode: Face to Face
Total Learning Hours: 75

Unit Description

This is a skills based unit that will allow learners to demonstrate that they have the necessary skills to be able to understand the importance of sustainable approaches on the workplace, and to be able to plan, undertake and review work-based experience in the environmental sustainability sector. Learners will familiarise themselves with important aspects of sustainable approaches, such as their importance, impacts, the opportunities they provide and several popular techniques currently implemented.

The Unit is relevant to learners wishing to further develop their knowledge and understanding of a sustainable approach to businesses, and the ways with which they can access the various career opportunities this stream offers. On completion of the Unit, learners will have grasped the three step process to preparing for sustainable based work-related experience: prepare, undertake and review. They will obtain insight into what steps are required in the application process, what skills are required in an interview, and how they can prepare to start work. Furthermore, learners will gain knowledge of various methods with which they can keep track of their progress, as well as methods of how they can review their performance for self-improvement. Learners will also be able to implement a Personal Development Plan for their work-related experience.

Learners will carry out independent research and study to obtain important inductive insight into work-based experience in the environmental sustainability sector.

Learning Outcomes

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

- 1. Recognise the importance of applying a sustainable approach in the workplace.*
 - 2. Prepare for a sustainable work-related experience in the environmental sustainability sector.*
 - 3. Undertake a work-related experience in the environmental sustainability sector.*
 - 4. Review a work-related experience in the environmental sustainability sector.*
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ASWBL-403-2006 Work Related Experience in Environmental Sustainability Sector 2

Unit level (MQF/EQF): 4

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

Anyone who has ever worked on a project will agree that making a project succeed is no simple task. The difficulties manifest themselves in delays, budget over-runs, inadequate results, dissatisfied customers, high stress among the project team and other undesirable outcomes. What is the cause of all of these problems?

The aim of this study unit is to start training learners in all the processes involved in proposing and undertaking an extended investigative project in the environmental sustainability sector. The learners will be able to conduct a thorough literature review and compile a proposal with the intentions of eventually carrying out an investigative project.

Learners should aim to carry out the investigative project within an organisation, be it a local authority, a charity or voluntary organisation, an industry organisation, or a local community group. The project can be carried out over a single stretch of a few weeks, or else during weekends or recess periods. The project will help the learners to develop project management and communication skills by investigating a topic of their choice.

It is suggested that the learners explore three topic areas that interest them and are relevant to their field of study. Subsequently, and following supervisors' advices, learners should decide on one area of study that will form the basis of their investigative project.

Learners will develop this skill of taking responsibility of their own learning by choosing independently their own research problem to be solved. They should produce a breakdown of resources and a project action plan including intermediate deadlines.

Learning Outcomes

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

1. *Understand what a literature review is in research.*
2. *Assess literature sources for authenticity and validity.*
3. *Carry out an effective literature review using a number of sources or databases.*
4. *Formulate a research question related to an efficient literature review.*
5. *Write a proposal for an environmental investigative research project.*

ASPRJ-403-2006: Investigation Project in Environmental Sustainability 1

Unit level (MQF/EQF): 4

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

Anyone who has ever worked on a project will agree that making a project succeed is no simple task. The difficulties manifest themselves in delays, budget over-runs, inadequate results, dissatisfied customers, high stress among the project team and other undesirable outcomes. What is the cause of all of these problems?

The aim of this study unit is to start training learners in all the processes involved in proposing and undertaking an extended investigative project in the environmental sustainability sector. The learners will be able to conduct a thorough literature review and compile a proposal with the intentions of eventually carrying out an investigative project.

Learners should aim to carry out the investigative project within an organisation, be it a local authority, a charity or voluntary organisation, an industry organisation, or a local community group. The project can be carried out over a single stretch of a few weeks, or else during weekends or recess periods. The project will help the learners to develop project management and communication skills by investigating a topic of their choice.

It is suggested that the learners explore three topic areas that interest them and are relevant to their field of study. Subsequently, and following supervisors' advices, learners should decide on one area of study that will form the basis of their investigative project.

Learners will develop this skill of taking responsibility of their own learning by choosing independently their own research problem to be solved. They should produce a breakdown of resources and a project action plan including intermediate deadlines.

Learning Outcomes

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

- 1. Understand what a literature review is in research.*
 - 2. Assess literature sources for authenticity and validity.*
 - 3. Carry out an effective literature review using a number of sources or databases.*
 - 4. Formulate a research question related to an efficient literature review.*
 - 5. Write a proposal for an environmental investigative research project.*
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ASPRJ-409-2007 Investigation Project in Environmental Sustainability 2

Unit level (MQF/EQF): 4

Credits: 9

Delivery Mode: Face to Face

Total Learning Hours: 225

Unit Description

Anyone who has ever worked on a project will agree that making a project succeed is no simple task. The difficulties manifest themselves in delays, budget over-runs, inadequate results, dissatisfied customers, high stress among the project team and other undesirable outcomes. What is the cause of all of these problems?

The aim of this study unit is to continue training learners in all the processes involved in proposing and undertaking an extended investigative project in the environmental sustainability sector. Following the literature review and the compilation of a proposal, this unit will allow the learners to build on such foundation and subsequently carry out an investigative project.

Learners should aim to carry out the investigative project within an organisation, be it a local authority, a charity or voluntary organisation, an industry organisation, or a local community group. The project can be carried out over a single stretch of a few weeks, or else during weekends or recess periods. The project will help the learners to develop project management and communication skills by investigating a topic of their choice.

It is suggested that the learners explore three topic areas that interest them and are relevant to their field of study. Subsequently, and following supervisors' advices, learners should decide on one area of study that form the basis of their investigative project.

Learners will develop this skill of taking responsibility of their own learning by choosing independently their own research problem to be solved. They should produce a breakdown of resources and a project action plan including intermediate deadlines.

Learning Outcomes

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

1. *Select a suitable method to answer the selected research question(s).*
2. *Distinguish between different types of data.*
3. *Evaluate the main findings of the research conducted.*
4. *Perform an impact assessment.*
5. *Present the investigative project.*

ASENV-406-1506: Understanding Water Quality

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

A good standard of water quality is essential for every living thing on our planet to survive. Water pollution can have devastating effects on aquatic life and humans. Recording, monitoring and controlling water quality is vital to ensuring standards are maintained.

This unit aims to equip learners with the skills and knowledge associated with water quality analysis. Learners will gain an understanding of the factors that impact on water quality including human activity. Physical, biological and chemical factors will be investigated and a thorough understanding of their influence on water quality will be gained. The principles of water treatment will be covered to ensure learners have an understanding of the processes involved and the management of water quality in a work based setting.

Scientific techniques will be experienced by learners to allow them to confidently progress into industry. Skills including recording results, interpreting data and drawing conclusions from analytical data will be practiced.

Learning Outcomes

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

1. *Describe factors that impact on water quality.*
 2. *Measure basic water quality factors.*
 3. *Record and interpret water quality data.*
 4. *Explain the principles of water treatment.*
-

ASENV-406-1507: Pollution Control and Management

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit enables learners to gain an understanding of air, noise, land and water pollution control and management. Moreover, the unit extends the learners' comprehension of the environmental impacts of pollution. Learners will also investigate the practical application of pollution control and management.

The natural environment is threatened by a wide range of anthropogenic activities, including emissions of contaminants and waste generation. In order to protect the environmental health, it is necessary that emissions to the environment are controlled. In instances where contamination has already taken place, it may be fundamental to remediate the contaminated sites. This unit focuses on the nature and sources of different pollution types and how they affect the natural systems, and how effective environmental management can control and mitigate the impacts of pollution.

This unit introduces the learner to pollution and how it affects the natural environment and systems. The key types of pollution in the Maltese Islands are then investigated. Using a specific fieldwork investigation, the learners will assess the impact of pollution on the environment. The learners will be exposed to the relevant current legislation in the Maltese Islands and will develop an understanding of the roles that national agencies play in the control and management of pollution.

Learning Outcomes

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

- 1. Define pollution and describe the natural environment and systems that are affected by pollution.*
 - 2. Identify the causes and effects of key types of environmental pollution in the Maltese Islands.*
 - 3. Assess the impact of a local marine activity or a coastal developmental site on the environment.*
 - 4. Discuss current legislation related to pollution.*
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ASAPS-406-1510: Scientific Practical Techniques

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This is a skills based unit that will allow learners to demonstrate that they have the required skills needed to carry out a variety of analytical techniques that are commonly used on a daily basis in the laboratory. Learners will be able to carry out both quantitative and qualitative techniques and become familiar with the most common analytical techniques used in the laboratory.

This unit is relevant to learners who wish to become familiar with analytical techniques used to separate and assess the purity of substances. These include sampling methods for solids, liquids and gases; separation techniques used on mixtures and solutions and the common methods used for the estimation of purity of a sample. Learners will become familiar with quantitative analytical techniques that are used for routine analysis in the laboratory together with qualitative techniques for the identification of cations and anions in solids and solutions.

The learner will be provided with the ability to be able to use a variety of instruments in order to determine a number of physical and chemical properties of substance. This unit will enable the learners to understand both the theory and application of analytical techniques. It will require the learner to actively participate and undertake experiments in the laboratory.

Finally, the learners should be able to apply the knowledge and understanding acquired during the unit to follow written procedures, plan and carry out laboratory experiments; followed by reporting of the data obtained in the experiments.

Learning Outcomes

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

1. *Describe a variety of scientific techniques to separate and determine the purity of substances.*
 2. *Apply quantitative and qualitative analytical techniques.*
 3. *Use a variety of instruments that are commonly used to determine the chemical composition and physical properties of substances.*
 4. *Perform experiments to identify and determine quantity or purity of a substance.*
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ASSDV-406-1503: Sustainable Construction

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

The aim of this unit is to enable learners to understand the impact of building construction activities on natural environment. Learners will find out about how the natural environment can be protected against these activities using the sustainable construction techniques.

The construction industry poses a major potential pollution threat to our environment and this unit will provide a fundamental understanding of how the activities of the construction sector impact on the natural environment. The techniques, processes and procedures used to protect the natural environment are investigated and the advantages of adopting a sustainable approach to construction work are explored in the contexts of energy, materials and waste.

Learning Outcomes

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

1. *Identify the important features of the natural environment that need to be protected.*
2. *Explain how the activities of the construction and built environment sector impact on the natural environment.*
3. *Explain how the natural environment can be protected against the activities of the construction and built environment sector.*
4. *Describe sustainable construction techniques that are fit for purpose.*

ASGEO-406-1501: Geology of Natural Resources

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

The aim of this unit is to explore the nature of rock, mineral and hydrocarbon resources. They will learn the formation of natural resources, their exploration and extraction as well as the environmental impact to these activities. Oil, metal ores and minerals are the essential part of our economy. We depend on these resources. Geological resources have been formed beneath the Earth's surface over millions of years. They have been formed by igneous, sedimentary and metamorphic processes throughout geological time. Geologists are involved in studying the formation of natural resources, carrying out prospection, exploration, extraction and processing of these resources. This unit examines how the environmental issues can be minimised during the resource exploitation.

Learning Outcomes

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

1. *Explain how geological resources are formed under the Earth's surface by geological processes.*
 2. *Identify minerals, rocks and the geological structures.*
 3. *Explain the strength of geological materials.*
 4. *Identify methods used to explore the geological resources and to investigate their impact on the environment.*
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CDKSK-406-2319: English

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit typically refers to English language skills needed for specific careers or vocational training programmes. The main objective of this unit is to prepare learners to understand and respond to spoken English on a variety of topics, including abstract or unfamiliar topics, to read and comprehend a variety of texts, including more extended and more complex texts, and to write in a more precise and structured way. Particular focus is given to summarising and paraphrasing.

At this level, learners should have a good understanding of English grammar, vocabulary and usage. They should be able to communicate effectively in written and spoken English, express opinions, and understand complex texts and conversations as required by various but often specific technical contexts within their selected field of study. Learners should also start acquainting themselves with researching reliable and authoritative sources of information. Moreover, they should also be able to cite this information and follow the conventions of the referencing style stipulated by their respective institute.

Learning Outcomes

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

1. *Read and understand written English effectively to improve knowledge of the subject area.*
 2. *Understand extended speech and follow an argument provided the topic is related to one's own subject area.*
 3. *Speak with a degree of fluency and spontaneity on topics related to one's own subject area.*
 4. *Produce a research-based report or essay with appropriate choice of linguistic style and structure.*
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CDKSK-406-2320: Mathematics

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit provides a framework for students to develop mathematical thinking skills further to the level 3 unit specification to solve problems related to real-life situations. Students also develop skills, attributes and knowledge that contribute to their personal growth and effectiveness within their training and work environment and within the community.

The unit is designed to adapt for the needs of a particular field of study (business & finance or engineering & transport and others). To reach this goal the unit was divided into eight learning outcomes from which four learning outcomes are chosen and taught, which are related to statistics, algebra and graphical representation, geometry, areas and volumes, game theory and finance. Through these different areas students will be able to develop the effective skills for information processing, reasoning, evaluation creative thinking and enquiry, all fundamental skills for the problem-solving process. This will prepare students in applying and evaluating a range of strategies to solve real-life problems. Through this unit the learner will also learn to present and communicate results and conclusions effectively.

On successful completion of the unit the learner will be equipped with mathematical thinking skills which make them aware of and understand their thought process, to reassess and identify areas for development. Students learn to evaluate, reflect on their strategies, understand, and verify results to solve problems. These skills will equip students with managerial skills, to further their studies and for work employability.

Learning Outcomes

Learning Outcomes are electives out of which 4 are to be chosen

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

1. *Use algebraic techniques to simplify expressions and solve equations.*
2. *Identify how to simplify more complex expressions and solve harder equations.*
3. *Demonstrate visual and logical techniques in evaluating graphical representations and communication skills in presenting the results effectively.*
4. *Demonstrate skill in calculating angles, sides, areas, and volumes for any given situation.*
5. *Apply information processing skills to solve problems in a relevant statistical context.*
6. *Apply thinking skills and demonstrate evaluation skills to solve problems in a relevant game theory context.*
7. *Demonstrate evaluation and communication skills in solving and presenting problems applied to costing methods and techniques.*

CDKSK-406-2322: Information Technology

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit aims to impart to the learners the necessary skills to produce, report, and analyse their work in a digital environment. Based on six learning outcomes, out of which learners need to focus on five, chosen by the lecturer, which when combined give the learners the possibility to create advanced reports, represent data visually, understand the target audience and prepare outstanding presentations as well as manipulate images and videos and create websites.

Using word processing software, spreadsheet software and presentation software this unit will demonstrate to the learners how to create advanced charts, create what-if scenarios as well as how to analyse and validate the data being inputted. Building upon previous learning, this unit demonstrates how to create presentations which are adequate for the audience and the venue. Moreover, the presentations will be enriched with multimedia content to enrich the experience of the audience.

Throughout the unit, the learners will be making use of images and video. Learners are taught about the creation of websites as an aid to keeping a visible online profile. Another two topics delved into in this module are Artificial Intelligence and Digital Marketing. Learners are taught about creating simple programs as well, through the use of drag and drop techniques.

Learning Outcomes

5 learning outcomes need to be chosen. L03 is a pre-requisite of L05.

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

1. *Use office essential tools, including word processing, spreadsheets and presentations.*
 2. *Create images and videos by making use of image and video creating software.*
 3. *Apply web editing techniques.*
 4. *Apply computational thinking techniques to create apps.*
 5. *Identify concepts related to Artificial Intelligence.*
 6. *Use concepts related to Digital Marketing.*
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CDKSK-402-2324: Community Social Responsibility

Unit Level (MQF/EQF): 4

Credits: 2

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 50

Unit Description

This unit focuses on Community Social Responsibility and provides an opportunity for learners to better understand themselves and others to establish life goals. Community social responsibility enables learners to understand their strengths, areas for improvement, opportunities offered to them during their lifespan and threats which can hinder their achievements. This unit will prepare students for life, employment and how to become active citizens in society.

Lectures will differ from traditional delivery of other units where learners will be empowered to take ownership of their learning process. This means that this unit will be delivered through a combination of discussions, presentations, debates and application of theory through voluntary work. The sessions will focus on students becoming more self-aware of their strengths and limitations and what can be done to improve themselves. Skills needed on working and interacting with other people in the community and the right work ethics when doing the voluntary work. These sessions will help them prepare themselves for life after college and also instil civic duty to become active citizens.

Learning Outcomes

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

1. *Discover oneself through personal reflection and planning personal goals.*
 2. *Interact and cooperate with other people effectively.*
 3. *Develop active participation and promote community work.*
-

CDKSK-404-2325: Entrepreneurship Essentials

Unit Level (MQF/EQF): 4

Credits: 4

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 100

Unit Description

One of the main policy goals for the EU and Member States over the past years has been the development of the entrepreneurial capacity of European individuals and organizations, since there is a growing understanding that entrepreneurial abilities and information, can be learned, which in turn spurs the development of an entrepreneurial mindset and culture that is advantageous to both people and society at large.

Entrepreneurship is a transversal skill that may be used to launch businesses as well as foster personal growth, actively participate in society, and (re)enter the job market as an employee or self-employed individual (cultural, social, or commercial). Hence, it encompasses a variety of entrepreneurial endeavours, such as intrapreneurship, social entrepreneurship, green entrepreneurship, and digital entrepreneurship. It relates to value creation, and it is applicable to both individuals and groups (teams or organizations), as outlined in the definition below:

‘Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others. The value that is created can be financial, cultural, or social’ (FFE-YE, 2012)

Therefore, the main objective of this unit is to familiarize the learners with the above-mentioned concept of entrepreneurship, with a view on enhancing entrepreneurial skills by building a strong foundation in this area of studies. Through this unit, learners will be guided on various ideation and creativity techniques, which will enable them to recognize opportunities and/ or generate ideas that address needs which are not currently being met, whilst being driven by sustainability when making these decisions. For example, through the use of the global sustainable developmental goals (SDGs) the learners are encouraged to understand the importance of sustainable development and inspire them to create businesses that contribute to this cause.

Throughout the unit, learners will be encouraged to think critically, creatively, and ethically about entrepreneurship, and to consider the impact of their ventures on society and the environment, by utilising a variety of tools such as the Business Model Canvas(BMC) as a framework, and they will also have the opportunity to develop various other transversal skills such as communication and teamwork skills.

Upon completion of this unit, learners will have developed an appreciation for the role of entrepreneurship in society and acquired an entrepreneurial mindset that will enable them to identify and pursue opportunities for innovation and growth in their personal and professional lives.

Learning Outcomes

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

- 1. Identify an entrepreneurial opportunity.*
- 2. Apply creative thinking tool(s) and technique(s) to generate idea(s).*
- 3. Develop an entrepreneurial idea through a strategic plan.*
- 4. Use effective communication skills to persuade various stakeholders.*