MCAST

MCAST PROGRAMMES - PUBLIC INFORMATION TEMPLATE (FULL TIME)

Institute	Institute of Applied Sciences
Department	-

Programme Title	Advanced Diploma in Food Technology				
Course Code *To be filled in by Admissions Dept.*	AS4-A01-23		**If the programme includes a WBL element, How is it accredited?**	Apprenticeship	
MQF/ EQF Level	Level 4	**Type** *(refer to Appendix 1 for Parameters)*	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** *(Academic Years or Semesters)*	2 Years	**Mode of Attendance**	Full-Time
Total Number of Credits	120 credits	**Total Learning Hours** *(25 Total Learning Hours for each ECTS)*	3000 hours		
Target Audience	Ages 16 - 65	**Target Group** *(the type of learners that the educational institution anticipates joining this programme)*	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				

	applicant, one may proceed with the online application according to the same instructions applicable to all other applicants. For more information about how to apply online for a course at MCAST, please visit: https://mcast.edu.mt/how-to-apply-online-2/
Information for Non-EU Citizens	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/. 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/
IMPORTANT note to Non-EU Nationals / TCNs	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: https://mcast.edu.mt/important-information/
Address where the Programme will be Delivered	*MCAST has four campuses as follows:* **MCAST Main Campus** Triq Kordin, Paola, Malta *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).* *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:* **Institute for the Creative Arts** Mosta Campus Misraħ Għonoq Tarġa Gap, Mosta **Institute of Applied Sciences** Centre of Agriculture, Aquatics and Animal Sciences, Luqa Road, Qormi **Gozo Campus** J.F. De Chambray Street MCAST, Għajnsielem Gozo *In the case of courses delivered via Online Learning, students will be following the programme from their preferred location/address.* *Programmes delivered via Blended Learning, and which therefore contain both an online and a face to face component shall be delivered as follows:*

	○ Face to Face components – as per above address instructions ○ Online components – from the student's preferred address.
Course Description *(Refer to Programme Specification)*	The food and beverage industry is a dynamic sector which requires a number of highly skilled technical people to cope with constantly changing customers' demands and new innovative production technologies. Food technologists monitor day-to-day manufacturing activities; ensure that safety and quality standards are met; improve existing products and design innovative foods and drinks. This is a multidisciplinary programme offered across four Institutes and includes topics on food analysis, product manufacturing, food safety, cost accounting and product design. The programme provides learners with the opportunity to gain knowledge of the industry and insights into the relevant tools and skills through work-based elements. This programme prepares learners for employment within SMEs as well as medium to large organizations which produce a range of food and drink products.
Deskrizzjoni tal-Kors *(Refer to Programme Specification)*	L-industrija tal-ikel u x-xorb hija settur dinamiku li jirrikjedi għadd ta' persuni tekniċi bi kwalifiki għoljin biex ilaħħqu mad-domandi tal-konsumaturi li dejjem jinbidlu u mat-teknoloġiji tal-produzzjoni ġodda u innovattivi. It-teknoloġisti tal-ikel jissorveljaw attivitajiet ta' manifattura minn jum għall-ieħor; jiżguraw li jiġu sodisfatti l-istandards ta' sikurezza u ta' kwalità; itejbu prodotti eżistenti u jiddisinjaw ikel u xarbiet ġodda u innovattivi. Dan huwa programm multidixxiplinari u jinkludi suġġetti dwar l-analiżi tal-ikel, il-manifattura tal-prodott, is-sikurezza tal-ikel, il-kontabilità tal-ispejjeż u d-disinn tal-prodott. Il-programm jipprovdi lill-istudenti l-opportunità li jiksbu għarfien dwar l-industrija u l-għodod u l-ħiliet rilevanti permezz ta' elementi bbażati fuq ix-xogħol. Dan il-programm iħejji lill-istudenti għal impjieg fl-SMEs, kif ukoll f'organizzazzjonijiet medji u kbar li jipproduċu firxa ta' prodotti ta' ikel u xorb.
Career Opportunities:	Food Analyst, Food Technologist, Food Product Development Technologist, Food Production Supervisor, Food Processing Technician, Food Quality Control/Quality Assurance Technician
Entry Requirements *(Refer to Prospectus / Course Page on MCAST website)*	Internal Progression route…. MCAST Diploma in Applied Science or MCAST Diploma in Mechanical Engineering or MCAST Diploma in Engineering (Electronics) orAny MCAST MQF Level 3 Diploma OR 4 SEC / SSC&P or equivalent with a Pass Grade / Level 3
Other Notes related to this Programme, and which are to be taken note of	-
Programme Learning Outcomes *(Refer to Programme Specification)*	At the end of the programme the learner will be able to: 1. Understand how food and beverage organizations operate. 2. Understand the importance of food safety and apply Hazard Analysis and Critical Control Point (HACCP) principles. 3. Apply scientific methods and use fundamental scientific principles to food manufacturing problems. 4. Assist in the development of new innovative food and beverage products.

Teaching, Learning and Assessment Procedures	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 pertaining to this Programme's MQF/EQF level available at: link https://www.mcast.edu.mt/college-documents/, apply.
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. 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'. Work-based learning units (where applicable) are graded on a Pass/Fail basis only. Some units which follow industry standards and regulations may also be graded on a Pass/Fail basis as per programme regulations referred below. 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)
Exit Point (where and as applicable)	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 *DOC 077 Procedure for the processing of Claims for Certificates at Interim Exit Points.*
Contact details for Further Learning Opportunities	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. **MCAST Career Guidance** Tel: 2398 7135/6 Email: career.guidance@mcast.edu.mt
Regulatory Body/ Competent Authority Contact Details *(where applicable - in the case of a programme leading to Regulated Profession)*	Not Applicable

Programme Structure	Unit Code	Unit Title	ECTS	Year	Semester
	ASASC-406-1601	Fundamentals of Science	6	1	Year
	ASFDT-406-1601	Working in the Food and Beverage Industry	6	1	Year
	ASCHM-406-1602	Food Chemistry and Nutrition	6	1	Year
	ASFDT-403-2101	Introduction to HACPP and HACPP plan	3	1	Year

	ASFDT-406-1603	Food Product Manufacturing	6	1	Year
	ASFDT-406-1605	Quality Assurance and Quality Control	6	1	Year
	ASFDT-406-1609	Food Processing and Preservation	6	1	Year
	ASWBL-406-2003	Work Based Module 1	6	1	Year
	CDKSK-406-2322	Information Technology	6	1	Year
	CDKSK-406-2320	Mathematics	6	1	Year
	ASFDT-403-2103	Industry Based Experience in the food and Beverage Sector 1	3	1	Year
	ASFDT-403-2104	Industry Based Experience in the food and Beverage Sector 2	3	2	Year
	ASFDT-403-2102	Applied microbiology	3	2	Year
	ASFDT-406-1602	Process Engineering for Food Technology Specialists	6	2	Year
	ASFDT-406-1604	Food Innovation	6	2	Year
	ASFDT-406-1606	Food Analysis	6	2	Year
	ASFDT-406-1607	Decontamination Techniques	6	2	Year
	ASFDT-406-1608	Food Product Design	6	2	Year
	ASFDT-406-1610	Cost and Profitability Estimation in the Food Industry	6	2	Year
	ASPRJ-406-1603	Food Technology Project	6	2	Year
	ASWBL-406-2004	Work Based Module 2	6	2	Year
	CDKSK-404-2325	Entrepreneurship Essentials	4	2	A
	CDKSK-402-2324	Community Social Responsibility	2	2	A

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

Note: The 'Self-Learning and Assessment Hours[3]' amount to the difference between the 'Indicative Contact Hours'[1] and the 'Total Student Workload'[2]

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.

ASASC-406-1601: Fundamentals of Science

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 gain a broad theoretical and practical knowledge of chemistry, biology and physics. These key scientific skills would enable learner taking the level 4 qualification of food technology to understand scientific and technical information that will be useful for the learner.

The focus of this unit is on linking scientific principles with practical applications in engineering, food technology and other scientific fields. Learners will know the structure of atom and ionic bonding to form molecules. They will understand the chemical reactions and ionic bonding of atoms. Learners will know the structure and function of cell membrane, cell wall, nucleus and nucleolus. They will understand the nature of tissues and their functions.

Students will study different forms of energy and differentiate between potential energy and kinetic energy. They will learn how energy changes from one form to another and understand the nature of heat and transfer of heat. Learners will know the nature of electric charge, electric current and electric circuits. They will know the electromagnetic spectrum, nature of light, sound, ultrasound and uses of X-rays.

Learners will perform experiments in chemistry, biology and physics. They will do titrations, use microscope to identify cells and communicate results in their own work place as well as in other organizations to share the knowledge by means of reports and scientific papers.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Use chemicals safely in a scientific and industrial setting*
2. *Understand the functions of cells, tissues, organs and body systems*
3. *Use different types of energy efficiently when working on food technology and production*
4. *Communicate using appropriate formats to share scientific information gained from own experiments and research.*

ASFDT-406-1601: Working in the Food and Beverage Industry

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

The general aim of this Unit is to provide learners with an overview of the food and drink manufacturing industry. It will offer the opportunity to learners to demonstrate they have the necessary skills to be able to work effectively, efficiently and safely in a Food and Beverage company. Learners will be able to identify and carry out standard procedures in the workplace safely in well-designed and operated work spaces and to communicate all aspects of the day-to-day running and data handling requirements of a variety of Food and Beverage workplaces. In this unit learners will be introduced to the stages within the manufacturing process of food and beverage products and they will be given an opportunity to understand the routes that food and drink products take from field to table. Students will also familiarize themselves with the regulatory and legislative requirements placed to protect individuals and the environment.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Explain the importance of the food and beverage industry in Malta and beyond.*
2. *Understand how the food and beverage manufacturing industry operates.*
3. *Explain how procedures are followed and communicated in the workplace.*
4. *Identify key regulations and legislation related to food production.*

ASCHM-406-1602 Food Chemistry and Nutrition

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

This unit is mainly theory based and its main objectives are to introduce the learners to the chemistry of the main food components including carbohydrates, lipids and proteins, and to introduce the fundamental principles related with nutrition such as basic concepts, diet-related conditions, food allergies and intolerances, and guidelines related to dietary intake.

Learners will be introduced to basic organic chemistry concepts so as to be able to understand reactions that occur in living organisms. This will also enable them to recognize different classes of biomolecules and relate their structure with their functions in living organisms. The part related to nutrition will enable learners to develop their knowledge and understanding about the link between nutrition and health.

This unit is significant for learners who wish to pursue their studies in the food sector. It also complements other units, such as food analysis.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Describe the relationship between the structure and function of food carbohydrates.*
2. *Describe the relationship between the structure and function of food proteins and enzymes.*
3. *Describe the relationship between the structure and function of lipids.*
4. *Outline the basic nutritional concepts and requirements for a well-balanced healthy diet.*

ASFDT-403-2101: Introduction to HACPP and HACPP plan

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

Unit Description

When producing food and beverage products, it is an utmost priority to ensure that these would be safe for human consumption. The general aim of the unit is to give learners an insight into the safety requirements that govern the food and beverage manufacturing industry. This unit focuses on the techniques used to minimize micro-organisms in critical areas of the food production and storage facilities.

Learners will develop an appreciation of the need for health and safety industry standards together with compliance with legislation with particular reference to food safety, and health and safety when manufacturing food and beverage products.

The unit will focus on the HACCP system requirements and the seven principles which govern the system. This includes defining quality policy, defining the scope of the HACCP system, determining tasks, responsibilities and authority, making resources available and management assessment. In particular, the course syllabus overviews the requirements targeting the essentials of food hygiene for the catering staff but also provides the detailed concepts of the HACCP system.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Recognise the importance of Food safety law and HACCP.*
2. *Identify Biological, Chemical, and Physical Hazards.*
3. *Analyse the assignment of hazards and risk categories.*
4. *Determine critical control points in food production.*
5. *Apply corrective action procedures for deviations from the critical control point and imits.*
6. *Develop an action plan for Implementing HACCP.*

ASFDT-406-1602: Process Engineering for Food Technology Specialists

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

It is important that those working in food and beverage production areas are able to relate to the general manufacturing principles that are used within industry. This unit is intended to support learners with the necessary key engineering and Processing knowledge, skills and competences to be able to work in food and beverage manufacturing areas. It is targeted towards those learners that do not have an engineering background but would like to work in the food and beverage industry.

During this unit learners will be exposed to the different Control Processing. They will be given the opportunity to identify key components of control systems available for steady production with minimum variation.

Learners will be exposed to different plant layouts. With the use of practical examples learners will learn which layout to use in different situations.

Finally, learners will be exposed to inventory and classifying coding system.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Outline different tools to assist a company in the continuous improvement process.*
2. *Demonstrate how to keep a manufacturing process under continuous control.*
3. *Recognise different process layouts and methods of classifying in a food production facility.*
4. *Understand the fundamentals of inventory management and control.*

ASFDT-406-1603: Food Product Manufacturing

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

It is important that those working in food and beverage production areas are able to relate to the general manufacturing principles that are used within industry. This unit is intended to support learners with the necessary key engineering and manufacturing knowledge, skills and competences to be able to work in food and beverage manufacturing areas. It is targeted towards those learners that do not have an engineering background but would like to work in the food and beverage industry.

During this unit learners will be exposed to the different machinery used in food and beverage production. They will be given the opportunity to identify key components of the machinery and understand how these operate and how these should be maintained in accordance to standard protocols and established maintenance schedules. Learners will also be able to relate to the basic manufacturing principles and practices used in engineering workshops. The unit is not intended to into depths which are expected to be achieved in specific engineering oriented qualifications.

Strong emphasis would be placed on the importance, impact and effect of using a range of different equipment to produce food items of quality and consistency. However, the importance of selecting the right raw materials to ensure quality and consistency will also be investigated through unit

Learning Outcomes

On completion of this unit the learners will be able to

1. *Understand the different categories of food products, the raw materials, machinery and processes used to produce them.*
2. *Outline the basic equipment constituents used in food production areas.*
3. *Recognize the basic manufacturing principles and practices used in engineering workshops.*
4. *Maintain machinery found in food and beverage manufacturing industries in accordance to maintenance schedules.*

ASFDT-406-1604: Food Innovation

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

Man's management of food resources has been the basis of all his achievements ever since he realised that, by working as a team, he could hunt big game that he had, previously, considered as too big for him to handle on his own, or else was considered a predator to be avoided and feared. Instead of going out to hunt on his own and risk getting injured or even killed, man extracted himself from the food chain and became the top boss, the overseer of everything else. Another food innovation introduced by man was that of using fire to cook his food which rendered it –especially meat – much more digestible and easier to chew.

It took him quite a few more millennia before he brought about yet another major innovation in food collection. This innovation was the domestication of wild animals that could then be kept confined inside enclosures to be slaughtered for meat or exploited for other uses. This not only eliminated the risks associated with going out into the wilderness to hunt but also saved immense amounts of time and energy which could thus be employed for more creative activities and further innovations.

As we can see, innovation in relation to food has been a constant motif in man's existence since time immemorial.

Today we have to address the theme of food innovation through many perspectives. Food production, processing, preservation, distribution, retailing, consumption and promotion has become such a complex and sophisticated activity that we cannot deal with food innovation as a monolithical concept. Each phase of the food chain has its own set of innovation potentials and challenges and we need to address those different phases separately.

This particular unit will provide a general overview of how innovation inputs can impact the food industry but its main focus will be on the innovative modes of presenting the food items produced by primary producers – farmers – to the consumer whether it be a home consumer concocting healthy, appetizing meals for the family or a catering establishment that is anxious to add something exciting to the menu.

Innovation and Diversification often go hand-in-hand. Sometimes, the innovative aspect aims at appealing to the health conscious consumer who is in search for meals that incorporate consistent amounts of fruits and vegetables while at the same time presenting a very appetising appearance and aroma. On the other hand, innovation could focus on the efficient harvesting, packaging and delivery of fresh produce that renders the product attractive to the consumer because of its manifestly fresh appearance while carrying an economic price tag.

In today's global economy, food innovation involves the design and development of new food products, the improvement or combination of existing food products, research into food trends and food management.

Food innovation invariably goes hand in hand with food technology and covers a very wide field, from companies using science to improve the yields or composition of produce, to businesses focusing on reducing time to market and simplifying the supply chain, through to the online market places, delivery services and in-house gadgets in the hands of the consumers.

There are many possible innovation opportunities in the food industry. One of the tests that learners will need to undergo is to see how many innovative ideas they can come up with related to the food production dimension that they are familiar with, or have chosen to explore. The easiest approach in this respect is to identify one major challenge facing the primary food sector they are familiar with and examine the situation carefully to see how they could transform that challenge into an opportunity.

This unit has is characterised by a strong component of creativity and imagination which, at the same time, depends on a well-developed skills base. Food innovation techniques require a developed understanding of consumer tastes, needs, and such constraints as purchasing power, time availability for buying and preparation, storage and refrigeration space. But food innovation is also directed at commercial outlets such as restaurants, delicatessens, kiosks, travel services such as airlines and cruise liners, industrial and military kitchens and canteens, as well as whole variety of convenience outlets.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Discuss a range of major food innovations that have been introduced over the past century at different phases of the food chain.*
2. *Identify a range of food innovations which could be applied to the primary food production stage to improve market share or obtain value added.*
3. *Assess the role of technology on a range of food innovations in this country.*
4. *Discuss how, and to what extent can food technology and innovation contribute towards developing a sustainable global food industry.*

ASFDT-406-1605: Quality Assurance and Quality Control

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

The unit reviews quality control and quality assurance measures taken in order to ensure the quality of food products. Food quality and safety is important since it ensures that the consumer is not susceptible to any form of contamination, illness or reaction following the ingestion of a food product. In this unit, learners are provided with an understanding of quality assurance and quality control procedures, tools for quality improvements and the importance of regular internal and external audits.

In this unit, different quality management standards will be examined along with their implementation. The implications of poor quality standards will also be examined and learners will be exposed to different tools which lead to quality improvements. Finally, the benefits of internal and external audits are reviewed.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Outline the concepts of food product quality and the method by which it is achieved.*
2. *Understand the relative merits of different types of Quality Control tests.*
3. *Understand the intrinsic principles of Quality Assurance and Quality Control.*
4. *Explain the value of audits and the way these promote continuous improvement in the quality cycle.*

ASFDT-406-1606: Food Analysis

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

This is a practical unit which is designed to enable learners to enhance their knowledge, skills and competences in order to be able to work in a food and beverage laboratory. Furthermore, learners will be provided with a theoretical and practical understanding of analytical methods to investigate the food properties, such as chemical composition. Learners will develop the necessary laboratory skills to work in a laboratory following GLP principles and use different apparatus and equipment to analyze food and carry out investigations in a specialized laboratory. In a laboratory, it is essential to work accurately and safely, thus, through this unit, learners will also develop confidence and manipulative skills to handle chemicals safely, set up and operate equipment, and understand procedures followed in the laboratory. Learners will also be provided with opportunities to work as a team, and apply theoretical concepts to problem solving by planning an investigation, selecting the appropriate analytical techniques followed by food analysis.

This unit is essential for learners who would like a career as a laboratory analyst in the food and beverage sector.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Carry out various tasks in a food laboratory safely and effectively.*
2. *Understand the principles associated with analytical techniques which are related with food analysis.*
3. *Use common qualitative and quantitative analytical techniques associated with food analysis.*
4. *Select the appropriate analytical technique when presented with a practical problem.*

ASFDT-406-1607: Decontamination Techniques

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

Consumers' demands for good quality and safe food and beverage products has led to an increasing awareness about the importance of hygiene during various stages of food production, and to an increasing interest in novel physical and chemical decontamination technologies in the food and beverage industry.

The first part of this unit will deal with health and safety issues such as hazards, importance of health and safety in different sectors of the food and beverage industry, such as, during processing, manufacturing and packaging, and occupational health and safety. This will be followed by awareness about the sources of food contamination, an overview of hygiene development in this industry, and different hygiene control measures that must be followed rigorously to ensure that the final product is safe for human consumption. One cannot appreciate the importance of decontamination techniques if s/he is not aware about the microorganisms responsible for food poisoning.

As a result, in the second part of this unit, students will gain knowledge about different microorganisms that are relevant for the food and beverage industry, including pathogenic microorganisms that cause food poisoning and food spoilage microorganisms that affect the quality of the product.

Case studies on food poisoning and food deterioration by food spoilage microorganisms will also be included in this part. In the third and fourth part of this unit, students will be exposed to various physical and chemical decontamination techniques used in the food and beverage industry to ensure food safety and meet food safety regulatory requirements.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Understand the importance of health and safety, and hygiene in the food and beverage industry.*
2. *Understand the role of microorganisms in food spoilage and food poisoning.*
3. *Demonstrate physical decontamination techniques used on an industrial level in the food and beverage industry.*
4. *Demonstrate chemical decontamination techniques used on an industrial level in the food and beverage industry.*

ASFDT-406-1608: Food Product Design

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

This unit is intended to introduce learners to a number of both functional and commercial considerations related to food packaging and its role beyond safe containment and transport. Leaners shall familiarise themselves with the knowledge and skills necessary to handle and package various types of food and develop values about the safety and environmental impact of packaging before studying how to best promote specific food items to a target audience. A basic study of packaging materials, printing processes and marketing strategy will play a key role in the learners' development throughout this unit.

This unit is particularly relevant to learners studying food technology who wish to develop a working knowledge of point of sale promotion and marketing, or engage in entrepreneurial pursuits.

On completion of this unit learners will be able to successfully discern between various food packaging materials and processes and select appropriate solutions for different scenarios. They will also gain an understanding of how to communicate desirable characteristics of a food product to consumers via its packaging's appearance by using colour, typography and imagery in a conscientious and intelligent manner. Assessment shall take place based on learners' research and practical outcomes.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Identify and evaluate a range of packaging examples in the marketplace.*
2. *Describe different printing and finishing processes related to packaging.*
3. *Apply suitable graphic elements to a food packaging solution for promotion.*
4. *Present and evaluate a food packaging solution.*

ASFDT-406-1609: Food Processing and Preservation

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

Food processing and food preservation are two techniques that go hand-in-hand and constitute methods of converting raw food items into well-preserved and tasty food items, condiments, and side dishes that complement main dishes. Basically every form of food preservation involves some form of processing even if it is only a matter of drying or desiccating a fruit, vegetable or flesh. The process of preparing the food item and exposing it to the desiccating element, even at its most rudimentary level, is in itself a form of processing.

Methods of Food preservation and processing were originally devised to render a variety of foodstuffs to be available all year round under one form or another. Different regions developed their own particular methods and processes and concentrated on particular food items which, in time, became renowned as the specialities of those regions. Another very important motive behind the preservation and processing of raw food items was that of utilising and adding value to surplus agricultural production or to render the product easier to handle and to transport.

Some products are processed in order to reduce their water content drastically and produce a very concentrated form rendering it more convenient for use and for transportation and storage.

This is a hands-on, skilled based unit that will familiarise learners with the various primary food products produced by the Maltese agricultural sector and other rural enterprises. The unit will provide learners with the necessary skills and techniques to demonstrate that they are able to select, prepare, investigate and test a range of local processed and/or preserved food and beverage products. They will also familiarise themselves with the industrial and commercial application of these processes and recognise the fundamental similarities and differences between industrial and artisanal methods of processing and preserving raw food items.

The unit is composed of two distinct sections that could be delivered separately or jointly. One section focuses on simple preservation of food products as a form of extending the lifetime of specific primary food products. The other section involves the

transformation of primary food products through such processes as fermentation, baking, casefying, distillation, and other processes that totally transform the product into a completely different food or beverage. This section, however, also requires a further preservation intervention to ensure that the finished transformed product can keep at optimal condition for the required or desired interval. There are clear advantages in delivering the two sections in tandem because of the various parameters that are common to both and which could provide important advantages if proper focus is maintained on the linkages that exist between them. Another important linkage is the opportunity that such processes provide for food diversification and innovation which is covered in a separate unit.

Learners will subsequently have the opportunity to analyse and assess the prepared products in the laboratory and determine how different processes and different forms of preservation affect the finished products. A further exercise is geared to enable learners to appraise their product to establish whether they have achieved the desired outcome and to obtain feedback from third parties regarding the preservation element as well as the organoleptic characteristics of the finished product.

Learners will be provided with ample opportunity to work in a food production facility and a lab environment.

Learners will carry out independent reflective research and study to obtain essential inductive insight into the work-based experience in the food and beverage sector.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Discuss principles and application of food preservation and processing methods employed in the food and beverage industry and compare them with artisanal processes.*
2. *Prepare a range of food and/or beverage products using artisanal processes and preservation methods while adhering to established food safety and health and safety regimes.*
3. *Carry out a HACCP procedure of both the artisanal and the industrial preservation and processing of local food and beverage items and carry out tests on finished products.*
4. *Discuss how, and which, preservation and processing initiatives could enhance the market for local agricultural products.*

ASFDT-406-1610: Cost and Profitability Estimation in the Food Industry

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

For anyone considering a career in food technology, it is important to have a good understanding how a food and beverage manufacturing organisation operates and have a basic understanding of the internal and external factors that would affect the commercial viability of a food or drink product. This unit will develop the learners' understanding of cost accounting. Furthermore, the unit will help give learners a firm foundation for employment in the food and beverage sector and an understanding of the organisational, financial and social constraints within which a food and beverage organisation operates.

This is a hands on unit whereby learners, through the use of a number of case studies, will be given the opportunity to use cost accounting techniques to determine the accurate cost information of food and beverage products to decide on which products to keep and which products to discontinue, for assessing productivity improvements and for performance evaluation and control. This data is vital for food and beverage manufacturing organisations as improperly designed cost accounting system can lead to costly errors in decision-making.

The aim of the unit is to provide aspiring food technologists with an appreciation of financial implications of decisions taken in food manufacturing assembly lines. At the end of the unit learners are expected to relate the technical aspects learnt in other units to the financial aspects and would be able to provide the most cost effective technical solutions.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Understand the fundamental principles of costing systems within a food and beverage manufacturing environment.*
2. *Use costing techniques to determine the product costs and profitability of a food and beverage manufacturing organisation.*
3. *Use information gathered from costing systems to assist decision-making within a food and beverage manufacturing organisation.*
4. *Discuss how external factors and the economic environment affect the operation of a food and beverage manufacturing organisation.*

ASPRJ-406-1603: Food Technology Project

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

The aim of this study unit is to train learners in all the processes involved in proposing and undertaking an extended investigative project in the food and beverage sector. Through this unit the learners will be able to conduct a literature review, compile a proposal, identify, plan, carry out an investigative project, and analyse and present the results of the project.

The topics investigated during the project will, wherever possible, relate to real life issues and will simulate situations likely to be encountered in a working environment. Learners should 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, they should reduce these to 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. This unit will provide leaners with an excellent opportunity to apply knowledge attained during other units to solve real life issues in the Food and Beverage sector.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Conduct a literature review related to a topic in food technology.*
2. *Write a proposal for an investigative project in the food and beverage sector.*
3. *Design and produce a detailed plan for an investigative project in the food and beverage sector.*
4. *Construct an investigative project in the food and beverage sector and monitor all the phases involved.*

ASWBL-406-2003: Work Based Module 1

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

This unit is the first part of a two-part course in Work-Based Module (Work-Based Module Part 2 ASWBL-406-2004).

This is a skills based unit that will expose learners to the work carried out in the food and beverage industry. The unit will allow learners to demonstrate that they are able to prepare, investigate and test a range of food and beverage products.

In this unit, learners are to prepare a range of food and beverage products in accordance to given formulations. Learners will be then asked to analyse and investigate the prepared products in a laboratory to be able to understand how different nutrients and ingredients affect finished products. In addition, learners will appraise their product to ensure that they have achieved desired outcome.

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

Learning Outcomes

On completion of this unit the learners will be able to

1. *Practice good hygiene and health and safety in food production areas.*
2. *Cook and prepare food and beverage products.*
3. *Understand food processing and food preparation basics.*
4. *Conduct food science experiments and investigations associated with food and beverage processing.*
5. *Investigate the quality properties of given or produced food and beverage products.*

ASWBL-406-2004: Work Based Module 2

Unit level (MQF/EQF): 4
Credits: 6
Delivery Mode: Face to Face
Total Learning Hours: 150

Unit Description

This unit is the second part of a two-part course in Work-Based Module (Work-Based Module Part 1).

This is a skills based unit that will expose learners to the work carried out in the food and beverage industry. The unit will allow learners to demonstrate that they are able to prepare, investigate and test a range of food and beverage products.

In this unit, learners will focus on the preservation of food and beverage products. Learners will be then asked to analyse and investigate the prepared products in a laboratory to be able to understand how different nutrients and ingredients affect finished products. In addition, learners will appraise their product to ensure that they have achieved desired outcome. Learners will be given ample opportunity to work in a food production area and a Lab environment.

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

Learning Outcomes

On completion of this unit the learners will be able to

1. *Understand the potential spoilage of food and how to prevent it.*
2. *Follow procedures to preserve a range of food products.*
3. *Investigate different preservation methods on given or produced foods and beverages.*
4. *Investigate the quality properties of given or produced preserved food and beverage products.*

ASFDT-403-2102: Applied microbiology

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

Unit Description

When producing food and beverage products it is an utmost priority to ensure that these would be safe for human consumption. The general aim of the unit is to give learners an insight into the safety requirements that govern the food and beverage manufacturing industry.

This unit will introduce learners to the world of microbiology and its applications in the food industry. It will highlight the importance of micro-organisms in food production in terms of food spoilage and food poisoning, whilst highlighting the important uses of certain micro-organisms for the production of particular food products. By the end of the unit it is envisaged that learners will be able to understand the conditions that govern micro-organisms growth and would be able to develop an understanding of the effect on micro-organisms on processing, preservation and storage techniques used in food production.

The learner will be exposed to a number of different microbiological techniques used in industry to identify and enumerate micro-organisms. This part of the unit is highly practical in nature and learners will be able to appreciate the importance aseptic techniques.

This unit focuses on the techniques used to minimize micro-organisms in critical areas of the food production and storage facilities. Learners will develop an appreciation of the need for health and safety industry standards together with compliance with legislation with particular reference to food safety, and health and safety when manufacturing food and beverage products.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Analyse the microbial physiology of the cell structure and function; growth and nutrition.*
2. *Identify the instruments, techniques and data collection methods used in microbiological investigations.*
3. *Use treatments to decrease pathogens in food and beverage products.*
4. *Identify the industrial processes and products associated with micorganisims.*

ASFDT-403-2103: Industry-Based Experience in the Food and Beverage Sector 1

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

Unit Description

This unit is the first part of a two part course in Industry-based experience in the food and beverage sector (Industry-based experience in the food and beverage sector Part 2 ASFDT-403-2104).

Working within the food and beverage manufacturing sector is an integral part of the learning process for all aspiring food technologists. This unit aims to offer learners an opportunity to conduct a work experience within a local or foreign food and beverage manufacturing setting. Through this industry-based experience learners will be able to apply their knowledge and understanding of Food Sciences in an industry setting.

Learners shall gain practical experience of the industry, its management systems and structures providing them with a firsthand introduction to a food manufacturing business. Throughout the unit learners will be able to gain hands-on experience and enhance their technical competences, transversal and soft skills. Various technical aspects shall be covered (e.g. Quality control processes; marketing; production; HACCP plans; distribution of resources; processes evaluation). Different learners may cover different technical skills depending on the place of work, nevertheless, it is expected that most of the transversal and soft skills covered during the learners' working experience shall be the similar.

One of the objectives is to prepare the learners for the world of work. This is achieved by covering various aspects from familiarization with the local industry; preparation for a job interview to discussions on the correct work etiquette at the place of work. Part of the unit requires learners to use problem based learning approach.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Prepare for applying for a job in the food and beverage sector.*
2. *Prepare for a work-related experience in the food and beverage sector.*
3. *Undertake a work-related experience in the food and beverage sector.*
4. *Recognise the importance of record keeping in the food and beverage sector.*

ASFDT-403-2104: Industry-Based Experience in the Food and Beverage Sector 1

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

Unit Description

This unit is the second part of a two part course in Industry-based experience in the food and beverage sector (Industry-based experience in the food and beverage sector Part 1 ASFDT-403-2103.

Working within the food and beverage manufacturing sector is an integral part of the learning process for all aspiring food technologists. This unit aims to offer learners an opportunity to continue with the work experience within a local or foreign food and beverage manufacturing setting which they commenced in their first year. Through this industry-based experience learners will be able to apply their knowledge and understanding of Food Sciences in an industry setting.

Throughout the unit learners will continue to gain hands-on experience and enhance their technical competences, transversal and soft skills. Various technical aspects shall be covered (e.g. problem identification and solving, gathering and managing information). Although during Part 1 different learners would have covered different technical skills depending on the place of work, nevertheless, it is expected that most of the transversal and soft skills covered during the learners' working experience shall be similar.

One of the objectives is to prepare the learners for the world of work. This is achieved by guiding the learners to identify problems, be able to solve them and take the appropriate decision. Learners will also be required to prepare their personal development plan. Part of the unit requires learners to use problem based learning approach.

Learning Outcomes

On completion of this unit the learners will be able to

1. *Practice the principles of problem identification, problem solving and decision making in the field of food sciences.*
2. *Manage relevant information, whilst generating alternatives and implementing solutions in the field of food sciences.*
3. *Review a work-related experience in the food and beverage sector.*
4. *Produce a Personal Development Plan to keep track of the knowledge and skills gained throughout the work-related experience.*

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. LO3 is a pre-requisite of LO5.

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.*

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.*