



MCAST

MQF/EQF Level 4

AS4-04-21-G

Advanced Diploma in Health Sciences

Course Specification

Course Description

This programme of study has been developed to prepare individuals for health related careers. The study units deal with the anatomy and physiology of the human body and the physical and psychological changes due to aging, and will help learners to build competences that will help when dealing with people with health issues and challenging behaviour. Through work placements, learners will get the opportunity to develop the skills and competences required to work within the health sector.

Programme Learning Outcomes

At the end of the programme the learner will be able to:

- 1. Understand the physiological, sociological, and psychological approaches applied within a health and social care setting.*
- 2. Recall how legislation, policies and procedures promote health, safety and security in health and social care settings*
- 3. Understand potential effects of life factors and events on the development of the individual*
- 4. Understand the factors that affect health status and patterns of ill health, and know the origins and application of current public health strategies.*

Entry Requirements

MCAST Diploma in Applied Science; OR

MCAST Diploma in Health and Social Care; OR

Any MCAST Level 3 Diploma, whilst being in possession of the compulsory subjects as indicated hereunder; OR

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

Compulsory: English Language and Mathematics and Biology

Other Entry Requirements

Applicants will be subject to an occupational health screening to establish their suitability for the Placement which is a mandatory part of this programme. Once course would have started, failure to present a successful health screening, will result in not being in a position to go on work placements which will preclude from a successful completion of course. Applicants must also provide evidence of a clean police conduct certificate.

Key Information

Awarding Body - MCAST

Accreditation Status - Accredited via MCAST's Self Accreditation Process (MCAST holds Self-Accrediting Status as per 1st schedule of Legal Notice 296/2012)

Type of Programme: Qualification

MQF Level	Examples of Qualifications	'Qualification' Minimum Credits Required	'Award' Credits Required
Level 8	Doctoral Degree Third Cycle Bologna Process	NA	NA
Level 7	Masters Second Cycle Bologna Process	90-120	Less than 30
	Post-Graduate Diploma	60	
	Post-Graduate Certificate	30	
Level 6	Bachelor ²³ /Bachelor (Hons.) ²⁴ First Cycle Bologna Process	180-240	Less than 180
Level 5	Short Cycle Qualification	120	Less than 60
	Undergraduate Higher Diploma	90	
	Undergraduate Diploma	60	
	Undergraduate Certificate	30	
	VET Level 5 Programme ²⁵	60-120	
Level 4	Pre-Tertiary Certificate	30	Less than 120
	VET Level 4 Programme ²⁶	120	
	MATSEC Certificate	NA	
Level 3	VET Level 3 Programme ²⁷	60	Less than 60
	General and Subject Certificate	NA	
Level 2	VET Level 2 Programme ²⁸	60	Less than 60
	General and Subject Certificate	NA	
Level 1	VET Level 1 Programme ²⁹	40	Less than 40
	General and Subject Certificate	NA	
Introductory Level A	Preparatory Programme	30	Less than 30
Introductory Level B	Pre-entry Basic Skills Course	30	Less than 30

Table 1: Minimum number of credits for 'Qualifications' and parameters for 'Awards'

Fig.1: p56, Ministry for Education and Employment & National Commission for Further and Higher Education Malta (2016). *Referencing Report, 4th Edition*. NCFHE.

Total number of Hours: 3000

Mode of attendance: Full Time

Duration: 2 Years

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

Target group: Students exiting compulsory education

The official language of instruction at MCAST is English. All notes and textbooks are in English (except for language courses which will be in the respective language being instructed). International candidates will be requested to meet English language certification requirements for access to the course.

This course will be offered at

MCAST has four campuses as follows:

MCAST Main Campus

Triq Kordin, Paola, Malta

All courses except for the Institute for the Creative Arts, Centre of Agriculture, Aquatics and Animal Sciences are offered here.

Institute for the Creative Arts

Mosta Campus

Misraħ Ghonoq Targa Gap,

Mosta

Institute of Applied Sciences,

Centre of Agriculture, Aquatics and Animal Sciences,

Luqa Road, Qormi

Gozo Campus

J.F. De Chambray Street

MCAST, Ghajnsielem

Gozo

Teaching, Learning and Assessment

The programmes offered are vocational in nature and entail both theoretical lectures delivered in classes as well as practical elements that are delivered in laboratories, workshops, salons, simulators as the module requirements dictate.

Each module or unit entails a number of in person and/or online contact learning hours that are delivered by the lecturer or tutor directly (See also section 'Total Learning Hours').

Access to all resources is provided to all registered students. These include study resources in paper or electronic format through the Library and Resource Centre as well as tools, software, equipment and machinery that are provided by the respective institutes depending on the requirements of the course or module.

Students may however be required to provide consumable material for use during practical sessions and projects unless these are explicitly provided by the College.

All Units of study are assessed throughout the academic year through continuous assessment using a variety of assessment tools. Coursework tasks are exclusively based on the Learning Outcomes and Grading Criteria as prescribed in the course specification. The Learning Outcomes and Grading Criteria are communicated to the Student via the coursework documentation.

The method of assessment shall reflect the Level, credit points (ECTS) and the schedule of time-tabled/non-timetabled hours of learning of each study unit. A variety of assessment instruments, not solely Time Constrained Assignments/Exams, are used to gather and interpret evidence of Student competence toward pre-established grading criteria that are aligned to the learning outcomes of each unit of the programme of study.

Grading criteria are assessed through a number of tasks, each task being assigned a number of marks. The number of grading criteria is included in the respective Programme Specification.

The distribution of marks and assessment mode depends on the nature and objectives of the unit in question.

Coursework shall normally be completed during the semester in which the Unit is delivered.

Time-constrained assignments may be held between 8 am and 8 pm during the delivery period of a Unit, or at the end of the semester in which the Unit is completed. The dates are notified and published on the Institute notice boards or through other means of communication.

Certain circumstances (such as but not limited to the Covid 19 pandemic) may lead Institutes and Centres to hold teaching and assessment remotely (online) as per MCAST QA Policy and Standard for Online Teaching, Learning and Assessment (Doc 020) available via link <https://www.mcast.edu.mt/college-documents/>

The Programme Regulations referenced below apply. (DOC 004* available at: link <https://www.mcast.edu.mt/college-documents/>

Total Learning Hours

The total learning hours required for each unit or module are determined as follows:

Credits (ECTS)	Indicative contact hours	Total Student workload (hrs)	Self-Learning and Assessment Hours
1	5 - 10 hrs	25 hrs	20-15 hrs*
2	10 - 20 hrs	50 hrs	40-30 hrs*
3	15 - 30 hrs	75 hrs	60-45 hrs*
4	20 - 40 hrs	100 hrs	80-60 hrs*
6	30 - 60 hrs	150 Hrs	120-90 hrs*
9	45 - 90 hrs	225 hrs	180-135 hrs*
12	60 - 120 hrs	300 hrs	240-180 hrs*

* The 'Self-Learning and Assessment Hours' amount to the difference between the contact hours and total student workload.

Grading system

All MCAST programmes adopt a learner centred approach through the focus on Learning Outcomes. The assessment of MCAST programmes is criterion-referenced and thus

assessors are required to assess learners' evidence against a pre-determined set of Learning Outcomes and assessment criteria.

For a student to be deemed to have successfully passed a unit, a minimum of 50% (grade D) must be achieved. In case of part time programmes, the student must achieve a minimum of 45% to successfully pass the unit.

All units are individually graded as follows:

A* (90-100)

A (80-89)

B (70-79)

C (60-69)

D (50-59)

Unsatisfactory work is graded as 'U'.

Work-based learning units are graded on a Pass/Fail basis only.

Detailed information regarding the grading system may be found in the following document: DOC 004* available at: link <https://www.mcast.edu.mt/college-documents/>

Intake Dates

- MCAST opens calls for application once a year between July and August of each year for prospective applicants residing in MALTA.
- Applications to full-time courses from international students not residing in MALTA are accepted between April and Mid-August.
- For exact dates re calls for applications please follow this link <https://www.mcast.edu.mt/online-applications-2/>

Course Fees

MCAST course are free for Maltese and EU candidates. International candidates coming from outside the EU need to pay fees for the respective course. Course fees are set on a per-level and course duration basis. For access to course fee structure and payment methods please visit <https://www.mcast.edu.mt/fee-payments-for-non-eu-candidates/>.

Method of Application

Applications to full-time courses are received online via the College Management Information System. Candidates can log in using Maltese Electronic ID (eID) or European eIDAS (electronic identification and trust services) to access the system directly and create an account as the identity is verified electronically via these secure services.

Non-EU candidates need to request account creation through an online form by providing proof of identification and basic data. Once the identity is verified and the account is created the candidate may proceed with the online application according to the same instructions applicable to all other candidates.

Non-EU candidates require a study visa in order to travel to Malta and join the course applied for. For further information re study-visa please access <https://www.identitymalta.com/unit/central-visa-unit/>.

For access to instructions on how to apply online please visit <https://www.mcast.edu.mt/online-applications-2/>

Contact details for requesting further information about future learning opportunities:

MCAST Career Guidance

Tel: 2398 7135/6

Email: career.guidance@mcast.edu.mt

Current Approved Programme Structure

Unit Code	Unit Title	ECTS	Year	Semester
ASPHY-406-1505	Anatomy for Health Practice	6	1	YEAR
ASPHY-406-1506	Physiology for Health Practice	6	1	YEAR
ASCHM-406-1503	Biochemistry	6	1	YEAR
ASHSC-406-2033	Vocational Practice in Health & Social Care Environments 1	6	1	YEAR
ASPSY-406-1505	Psychological Perspectives	6	1	YEAR
ASBIO-406-1501	Microbiology	6	1	YEAR
ASNTR-406-1505	Nutrition	6	1	YEAR
ASHTS-406-1502	Public Health	6	1	YEAR
CDKSK-406-2001	English	6	1	YEAR
CDKSI-406-1901	Il-Malti għall-Istitut tas-Servizzi fil-Komunità, tax-Xjenzi Applikati u għall-Arti Kreattiva	6	1	YEAR
ASHSC-406-2101	Caring for Individuals	6	2	YEAR
ASHSC-406-2102	Development Through Life Stages	6	2	YEAR
ASMDC-406-2101	Medications	6	2	YEAR
ASSOC-406-1501	Sociological Perspectives	6	2	YEAR
ASHTS-406-2113	Essential Academic Techniques	6	2	YEAR
ASHTS-406-2114	Genetics	6	2	YEAR
ASHTS-406-1501	Immunology	6	2	YEAR
ASHSC-406-2034	Vocational Practice in Health & Social Care Environments 2	6	2	YEAR
CDKSK-404-1915	Employability and Entrepreneurial Skills	4	2	A
CDKSK-402-2104	Community Social Responsibility	2	2	A
CDKSK-406-2002	Individual and Social Responsibility	6	2	YEAR
Total ECTS		120	/	/

The semester/year assigned to the modules may change according to the exigencies of the Institute or due to unforeseen circumstances. Students will be informed beforehand of any necessary changes.

ASPHY-406-1505: Anatomy for Health Practice

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

Unit Description

The unit is designed for the students to develop their knowledge and understanding of human anatomy and how the body's system work together. The unit will cover the organisation of the cells, tissues, musculoskeletal system, cardiovascular system, respiratory system, digestive system, urinary (renal) system, nervous system and the endocrine system.

The unit will enable the student to develop knowledge and understanding relating to the structure of each system within the human body. The student will become familiar with the components of each system, through the use of a variety of methods. The completion of class based activities; directed reading and research projects will enable the student to accurately pinpoint the position and components of each system. The structure of each system will enable the student to explain the function and how the body works as a whole. The unit will involve the familiarisation and usage of anatomical terminology, which the student will be expected to learn and utilise within their work. The student will be expected to participate in researching the effect of the increased demands placed upon the body by disease or illness.

This unit will also enable the student to apply their developing knowledge and skills, including practical observation identification and communication, which will enhance the student's ability to utilise IT effectively and source relevant information to the systems of the human body.

Learning Outcomes

On completion of this unit the learners will:

1. *Explain the organisation from cellular level to the organs and of each major system within human body, including the accessory systems.*
2. *Identify the components of each of the major and accessory systems within the human body*
3. *Outline the key characteristics and structure of the major components of each individual body systems, including the accessory systems.*

ASPHY-406-1506: Physiology for Health Practice

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

The unit is designed to enable candidates to have the opportunity to develop their knowledge and understanding of human physiological processes. The unit will also explore the growth and development of an organism. Physiology studies the ways in which the various systems of the body work together to deliver the activities of living and how the body responds at other times, including disease, exercise and ill health.

The student will be able to demonstrate their knowledge of homeostasis and how it is maintained within the body. This is important for the student to learn, as the normal state of the body is balanced, and how it is achieved and maintained.

This unit will enable students to demonstrate their developing knowledge and understanding of the distribution of fluids within the body, the cell structure, processes including diffusion, osmosis and active transport.

The physiology unit will teach the student how the body responds from cellular level to the level of tissues and organs. The unit will also help to explain how the systems interact with the environment and how these will impact upon the body.

Enquiry based learning sessions will enable the student to develop critical thinking, utilise spoken and written communication when working as a group or a team. These skills can be applied when considering the application of physiology to living a healthy life.

Learning Outcomes

On completion of this unit the learners will:

- 1. Explain the function of cells within the human body including fluid distribution.*
- 2. Describe the physiological functioning of the systems within the human body.*
- 3. Explore physiological control in relation to the nervous, and endocrine systems.*
- 4. Interpret data obtained from monitoring observations with reference to the functioning of healthy or unhealthy body systems.*

ASHSC-406-2101: Caring for Individuals

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit is designed to provide learners with a broad understanding of what is required to care individuals who have additional needs, older people and children and young people. It will enable learners to explore the different issues faced by those who require care and the different support available; as well as barriers to services. It will also afford the learner an awareness of the Legislation in place to protect these sometimes vulnerable individuals from harm and abuse.

The Unit is relevant to learners wishing to further develop their knowledge of the differences and similarities in which people of different age groups, abilities, gender ethnic origin etc. may require care.

The learner will also consider the skills and qualities necessary to work within this area.

This unit is suitable for learners who wish to progress to employment at support worker level within the care sectors or go on to further education.

On completion of the Unit learners will have a greater understanding of what it means to care for individuals.

Learning Outcomes

On completion of this unit the learners will:

- 1. Identify the differences and similarities in providing care for a range of individuals who might require care.*
- 2. Associate individualised care and planning with the skills, attributes and values required to work in a care environment through a Multi-Disciplinary Team approach.*
- 3. Examine the effects of various challenging behaviours encountered within the care environment and how these are dealt with effectively.*
- 4. Explore relevant legislation to ensure professional conduct as well as support services available within health care.*

ASHSC-406-2102: Development Through Life-Stages

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will allow learners to develop their ability to understand development through life stages. Learners will develop an understanding of a range of theories which provide an explanation and understanding of human development. These theories will demonstrate to students that development through life stages ought to be viewed as a range of complex concepts.

The unit also offers an exploration of the stages of growth and development throughout the human lifespan. Learners will be introduced to five main life stages: Infancy, Childhood, Adolescence, Adulthood and Older Adulthood. Within each of the stages, the unit will explore development in five main developmental strands. These strands are Social, Physical, Emotional, Cognitive and Cultural development.

The unit includes an examination of the potential effects of life factors and events on the development of the individual. An understanding of physical and psychological changes of ageing is also a key component of the unit. The unit will enable learners to make links between growth and development across the lifespan. This then allows learners to think of each of the stage of development in an inter-related manner.

The unit enables learners to learn about human development in relation to Health Studies. Genetic, environmental and social factors relating to human development are explored in the unit.

Learning Outcomes

On completion of this unit the learners will:

- 1. Identify the stages of growth and development that occur through life.*
- 2. Assess genetic, environmental and social factors relating to human development.*
- 3. Analyse the stages of the ageing process.*

4. *Evaluate the potential effects of life factors and events on the development of the individual.*

ASSOC-406-1501: Sociological Perspectives

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will allow the learner to develop their understanding of sociological perspectives and theories in relation to Health Studies. Learners undertake study on the basis of sociological thought, acquiring an understanding of both sociological approaches and common sense approaches to studying human society.

This unit continues by offering insight of why human interaction, based within a societal framework, is of particular interest to the field of Health Studies. This section encompasses the basis for interventions, the distinctions and relationships that exist when public issues manifest from personal troubles of milieu.

Learners will gain an understanding of major sociological approaches that help understand society, including structural and action perspectives. This will provide insight into the potential effects of health and illness on society.

Learning Outcomes

On completion of this unit the learners will:

- 1. Explain the role of sociological thinking through the differences between common sense approaches and sociological approaches to understanding society.*
- 2. Display an understanding of the socialisation process.*
- 3. Demonstrate knowledge of Action and Structural perspectives.*
- 4. Provide application of sociological approaches to health effects on society.*

ASPSY-406-1505: Psychological Perspectives

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will allow learners to develop their ability to understand psychological theories and perspectives based on a Health Studies setting. Learners will develop an understanding of a range of psychological theories which provide an explanation and understanding of human development and behaviour.

The unit also offers explanation of why care practitioners are interested in the study of human development and behaviour. An understanding of psychological changes of ageing is also a key component of the unit here.

It enables learners to learn about major psychological approaches in relation to Health Studies. This includes Psychodynamic, Behaviourist, Cognitive and Humanistic perspectives on development of behaviour. The unit explores an understanding of the contribution of these perspectives to help understand the development of individuals. This is the framework for an application of theories to development.

Learners will also focus on the contribution of psychological perspectives to the understanding of specific behaviours. This is relevant to help learners to gain an understanding of how management and treatment of specific behaviours is undertaken. It is also relevant in understanding the contribution of psychological perspectives pertaining to health practice.

Learning Outcomes

On completion of this unit the learners will:

1. *Explain the contribution of psychological perspectives to the understanding of the development of individuals.*
2. *Explain the contribution of psychological perspectives to the understanding of specific behaviours.*
3. *Explain the contribution of psychological perspectives to the management and treatment of specific behaviours.*

4. *Explain the contribution of psychological perspectives pertaining to health practice.*

ASBIO-406-1501: Microbiology

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This is primarily a knowledge-based unit and will allow learners to understand the importance of the spectrum of microorganisms and other parasites that exist and can be of a potential health risk to human populations. In addition, learners will also gain knowledge on how best to prevent and regulate such threats within the health care setting. A knowledge-based foundation of the biology of such microorganisms (and other parasites) will be essential to facilitate the understanding by the learner of their various pathogenic roles and influences on the human body for the development of microbial infection-based clinical conditions.

Learners will gather knowledge regarding examples of infective disorders, including micro-organisms of bacterial and viral origin, together with larger parasitic organisms. The arising public concerns regarding the issues of antibiotic drug resistance and handling of nosocomial infections will also be covered as part of this Unit.

Learners will also gain factual knowledge on how the immune system can be employed for combating infectious conditions, and how it can be strengthened through immunoprophylactic measures. Such a comprehensive coverage of these concepts will be of certain knowledge to all learners aiming at expanding their careers in the medical scientific research fields and also for clinical setting based careers.

Learning Outcomes

On completion of this unit the learners will:

- 1. Understand the basic cellular/ structural features of prokaryotic, eukaryotic and viral human pathogens.*
- 2. Describe and understand the varying modes of transmission of varying microbial infective conditions within the human population, together with therapeutic, regulatory and prophylactic measures to prevent such spread of infection within both the hospital and public environments.*
- 3. Understand the basic principles of microbiology techniques used in medical and industrial laboratories.*

4. *Describe and understand the importance of sterilization methods utilized in routine microbiology lab settings within the hospital / industrial sector.*

ASMDC-406-2101: Medications

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit provides a framework for learners to understand the properties and characteristics of medications used to treat different diseases, as well as their safe handling.

Learners will gain a clear understanding of the processes involved in drug research and development as well as the steps involved in the medicines supply chain.

Learners will familiarize themselves with the different dosage forms which can be used to treat patients, as well as the routes of administration for different types of medications.

Learners will gain a clear understanding of medicines used to treat various medical diseases, their adverse effects, as well as drug interactions which can occur.

The unit will enable learners to develop knowledge and understanding of the safe handling of medicines, including their storage and disposal. Learners will also be introduced to dose calculations.

Learners will familiarize themselves with the roles of different healthcare professionals in the medication process. Good practice in drug administration will be emphasized, as well as the importance of dealing with medication errors.

Learning Outcomes

On completion of this unit the learners will:

1. *Explain the relevance of each step in the medicines supply chain.*
2. *Identify drug dosage forms and methods of administration of medications.*
3. *Identify medications used to treat various diseases.*
4. *Examine practices essential for safe handling of medications.*
5. *Describe the roles of healthcare professionals involved in the medication process.*

ASNTR-406-1505: Nutrition

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will enable learners to develop their knowledge and understanding of the link between nutrition and health. Students will learn about the concepts of nutritional health, diet-related conditions, dietary intake guidelines and current nutritional issues. Students will learn about the characteristics and properties of nutrients and the effects these have on the body throughout the lifecycle. Learners will be able to outline the dietary sources, function in the body and deficiency symptoms of the main macro and micro nutrients. Learners will also develop an understanding of the influences and current issues that affect dietary intake and nutritional health. Learners will be familiar with the current nutritional guidelines and social policy which have an effect on nutritional intake. Practical information gathering and communication skills will be developed by learners to enable them to obtain accurate food and lifestyle data from an individual.

Data will be analysed using food tables to obtain an insight into the individuals' nutritional health and learners will be able to make appropriate recommendations to improve nutritional intake.

This unit is relevant for learners who wish to develop their knowledge and skills in the field of nutrition and wish to make further progress in health based careers.

Learning Outcomes

On completion of this unit the learners will:

1. *Explain the concepts of nutritional health and diet-related conditions.*
2. *Describe the main functions and properties of different macro and micro nutrients.*
3. *Explain the influences that affect dietary intake and nutritional health.*
4. *Use data collection techniques to obtain dietary and lifestyle information and recommend ways to make improvements to the individual based on the information provided.*

ASCHM-406-1503: Biochemistry

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit description

This is a theory based unit that will allow students to develop a deeper understanding of the molecular basis of life. During this unit candidates are introduced to chemical structures and chemical bonds to relate to the chemistry taking place in living organisms. The students will then explore the biochemical evolution of life, which will give a useful perspective in understanding the functioning of modern organisms.

Learners will then be able to look into a number of important classes of biomolecules, as to be able to associate their properties to their function in biological systems. The students will also be exposed to clinical cases to relate theoretical concepts to real practical clinical applications.

At the end of this unit candidates will be in a position to recognise the different classes of biomolecules and outline their role and function in living organism. Candidates will also be able to indicate appropriate analytic methods for different biomolecules.

This unit is relevant for learners who wish to develop their scientific knowledge in biochemistry in order to relate with other health science units. This will put the candidate in a favourable position to have a holistic view in his/her studies and research projects in this course.

Learning Outcomes

On completion of this unit the student will be able to

1. *Explain the basics of biomolecular structures and recognise their importance in the molecular design of life.*
2. *Relate carbohydrates to their extensive roles in all forms of life.*
3. *Recognise the structure and function of protein and lipids in living organisms.*
4. *Value the role of DNA and RNA in storing, transmitting and expression of genetic information.*

ASHTS-406-2114: Genetics

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

Unit Description

This is a knowledge based unit which will allow the learners to show that they have acquired the necessary knowledge to understand the fundamentals of genetics. Learners will understand the structure of DNA and the process by which proteins are synthesised. Students will be able to understand mutations, and how these might affect the fitness of organisms. When dealing with inheritance, the learners will use Punnet squares in order to demonstrate that they have the necessary skills to be able to predict the possible allele variation of the resulting offspring, together with the resulting phenotypes. The learners will also be able to demonstrate their knowledge of common genetic disorders, their cause, effect, how the disorders are diagnosed, and how they are managed.

This unit is relevant to learners that wish to understand why DNA is considered to be so important with regards to life. The learners will also be able to understand how certain genetic diseases arise. By the end of the unit the learners will be able to understand the basic concepts of medicinal genetics, population genetics, environmental genetics and evolutionary studies. The ethical considerations that arise when studies and techniques using genetic material are conducted will also be debated.

Learning Outcomes

On completion of this unit the learners will:

1. *Analyse the structure and functions of DNA, and how proteins are synthesised.*
2. *Recall how mutations occur and are inherited.*
3. *Identify the applications of genetics in a clinical setting.*
4. *Identify the applications of genetics in the world.*

ASHTS-406-1501: Immunology

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This is primarily a knowledge-based unit and will allow learners to understand the essential components cells of the human immune system. A knowledge-based foundation of such immune system components will be essential to facilitate the understanding by the learner of the various crucial roles played by such components within the individual innate and adaptive immune systems. These major roles of the human immune system include the ability to withstand infection from a variety of microbial organisms such as bacteria and viruses, together with providing defence mechanisms against larger parasites. Other aspects of the immune system that learners will appreciate include the effects on the individual patient when disorders of this immune system arise. Examples of such disorders to which the learners will gather knowledge of include allergy development, autoimmune disorders and the issues related to transplant rejection. Learners will also gain factual knowledge on how the immune system can be strengthened and/or employed for combating specific medical conditions such as cancer, including the development of traditional and translational medicine - based vaccines. Other disorders include immune deficiencies conditions such as, most notably, Human Immunodeficiency Virus infection, leading to Acquired Immune Deficiency Syndrome. Such a comprehensive coverage of these concepts will be of certain knowledge to all learners aiming at expanding their careers in the medical scientific research fields and also for clinical setting based careers.

Learning Outcomes

On completion of this unit the learners will:

- 1. Define and describe the nomenclature, general properties and components of the immune system and its essential roles in children, adults and the elderly.*
- 2. Define and describe the physical, cellular and molecular processes associated with the development of medical disorders that are in/directly influenced by disruption of homeostasis of the immune system through theoretical and clinical care settings.*
- 3. Gather, analyse and amalgamate knowledge from a range of sources to generate written and oral outputs that emphasise the validity of understanding the immune system and how its roles can be utilized and/or potentiated to benefit both human knowledge and health.*
- 4. Identify and collect, from textbooks and scientific literature, information on key immunological concepts that are currently in debate within the public and scientific community alike, to compare, evaluate, criticise and present as an independent written piece or oral presentation to peers.*

ASHTS-406-1502: Public Health

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

Unit Description

The study unit in public health offers a broad-based introduction to the discipline of public health and aims to help students develop a wide understanding of the subject. The definition, development and functions of public health will be explored. This unit will help students appreciate inequalities in health and the extent by which health is determined by diverse agents, host factors, social, economic, environmental and other conditions. It will introduce the students to the basic methods for the measurement of population health and public health surveillance. Examples of public health surveillance and research will be used to highlight such methods. The major public health concerns in developed and developing countries and the health needs of specific population groups will be presented.

As the major focus of Public Health is the prevention of disease and promotion of healthy living, the study unit will familiarise students to methods for the prevention and control of main public health hazards including health promotion and health education as a process designed to empower people to increase control over and improve their health. Legislation underpinning the principles of public health will be discussed. Topics will be supported by local statistics, policies and practices.

Learning Outcomes

On completion of this unit the learners will:

- 1. Outline the scope and concerns of public health.*
- 2. Recognise the main health problems experienced by populations and by main groups within them.*
- 3. Describe methods of surveillance and assessment of the population's health and well-being.*
- 4. Give examples of methods used to promote and protect the population's health and well-being.*

ASHSC-406-2033: Vocational Practice in Health & Social Care Environments 1

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

Unit Description

This unit has been designed to support the learner whilst completing a practice placement either within a health or social care environment. The learning from the unit will be reinforced with a workbook, which will enable the learner to record their developing knowledge and skills. The workbook will also contain assessments that require to be completed by the learner whilst attending the work placement. These can be in the form of practical assessments, written evidence of the learners' work, structured reflections, presentations and formal written feedback from staff within the learners' workplace.

The unit will introduce the learner to the wide variety of health environments that are available for a diverse range of individuals. The learner will be expected to know how to ensure the environment is safe for the clients / service users that they will support during their placement. The unit sets out to support the learner through the learning outcomes, competencies and assessments to develop the relevant behaviours expected within a health or social care setting.

In order to successfully complete this unit, the learner is required to obtain a pass in the theoretical part of the unit AND complete the required placement hours in an approved health or social care setting. Additionally, 80% attendance is required to be eligible to attend the approved placement, since the learner is expected to be adequately prepared prior to attending a health or social care setting.

Learning Outcomes

On completion of this unit the learners will:

- 1. Explain what constitutes a safe healthcare environment and how the healthcare worker would promote positive practice.*
- 2. Evaluate the qualities and skills that are required by a healthcare worker.*
- 3. Plan and reflect on own personal and professional development.*

- 4. Practice safe delivery of care to meet the needs of service users and provide a positive care environment.*

ASHSC-406-2034: Vocational Practice in Health & Social Care Environments 2

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

Unit Description

This unit has been designed to build on the existing knowledge and skills gained through 'Vocational Practice in a Health and Social Care Environments 1'. The learner will be supported whilst completing a practice placement either within a health or social care environment. The unit sets out to support the learner through the learning outcomes, competences and assessments to continue to develop relevant behaviours expected within a health or social care setting.

The unit will provide information to enable the learner to promote a safe care environment and maintain infection prevention and control procedures. The unit also focuses on identifying key concepts of communication in health and social care settings. The learner will be supported to engage in continuous reflection and plan own personal and professional development.

Learning from the unit will also be reinforced with a workbook, which will enable the learner to record their developing knowledge and skills. The workbook will contain varied assessments that require to be completed by the learner whilst attending the work placement. These can include practical assessments, written evidence of the learners' work, structured reflections, presentations and formal written feedback from staff within the learners' workplace.

In order to successfully complete this unit, the learner is required to obtain a pass in the theoretical part of the unit AND complete the required placement hours in an approved health or social care setting. Additionally, 80% attendance is required to be eligible to attend the approved placement, since the learner is expected to be adequately prepared prior to attending a health or social care setting.

Learning Outcomes

On completion of this unit the learners will:

1. *Plan a work experience to support own personal and professional development.*
2. *Maintain health and safety regulations and respond to accidents and emergencies in healthcare settings.*
3. *Communicate with different stakeholders.*
4. *Maintain infection prevention and control procedures.*

ASHTS-406-2113: Essential Academic Techniques

Unit level (MQF/EQF): 4

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

Essential academic techniques are a set of skills that prepare students to be lifelong learners within and beyond their official study period. This unit is designed to prepare learners at MQF Level 4 for progression to higher qualifications and to provide the learner with the opportunity to develop transferable soft skills to equip them for their next life stage, be that further education or employment. The unit will enable learners to begin their development as lifelong learners since irrespective of future course subjects, it is concerned with building on how students learn. This unit will afford the learner the opportunity to develop or consolidate skills in areas such as effective communication in a learning situation, time management, note taking, academic writing and identification and referencing of sources, working in groups and a range of study skills and techniques.

The unit focuses on studying for academic purposes with an emphasis on communicating and understanding ideas, in terms of speaking, listening, reading and writing, and particularly in how to argue critically in a written context, using appropriate language and referencing. This will necessitate developing critical thinking - one of the most useful transferable skills from education to work. Moreover, the unit is designed to increase the learners self confidence in their capacity to complete assignments and presentations.

Learners will have the opportunity to develop and strengthen good study habits and learning strategies through various instructional methods and strategies and is designed to take the learners with limited or under developed study skills, and enable them to develop and employ those skills to guide them to the most appropriate degree programme or working environment

Learning Outcomes

On completion of this unit the learners will:

1. *Determine personal strengths and areas for development in relation to study skills.*
2. *Develop the attributes to become an active, effective, proficient lifelong learner.*
3. *Develop the skills to become an active, effective, proficient lifelong learner.*
4. *Collect, analyse, interpret and present information clearly, both orally and in writing, from a range of academic and other sources.*

CDKSK-402-2104: 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 the others and to establish goals in life. Community social responsibility enables learners to understand their strengths and areas for improvement and prepares them for life, employment and to become active citizens in society.

Moving away from traditional delivery of other units, learners will be empowered to take ownership of their learning process. Hence, community social responsibility will be delivered through a combination of workshops, small-group sessions with mentors and various opportunities to reflect.

The set of sessions will tackle community social responsibility skills and will mostly focus on the self, the ability to work independently and important values in life. The second set of sessions will address interpersonal skills and will focus on working with others, dealing with diversity and conflicts. Furthermore, at the end of the sessions, the learners will be introduced to the importance of active citizenship in life.

Learning Outcomes

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

1. *Identify personal goals through self-reflection.*
2. *Evaluate how collaboration with others can be more effective.*
3. *Explain the importance of giving and receiving feedback.*
4. *Contribute actively to make a difference in society.*

CDKSK-404-1915: Employability and Entrepreneurial Skills

Unit Level (MQF/EQF): 4

Credits: 4

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 100

Unit Description

This unit complements the vocational and key skill units at Level 4 and provides an opportunity for learners to enhance their employability and entrepreneurial skills.

Quite often, learners tend to focus most on technical skills and competences required in a certain trade which enable them to access employment. On the other hand, employers expect employees to be appropriately skilled to follow instructions, take initiative, work effectively in a team, take a lead when necessary and more. In view of this the unit starts with an introduction to the 4th industrial revolution and proceeds to the transversal skills necessary to find employment, retain employment and advance at the place of work. Learners will be able to highlight their strengths and identify the areas that require improvement.

The rest of the unit focuses on entrepreneurial skills, a skill which is one of the most important transversal skills identified by UNESCO. Learners are introduced to methods which can be used to generate new and innovative business ideas and methods which help them evaluate ideas and choose the most feasible. Furthermore, learners will cover the various stages of product and/or service development, including market analysis, processes, pricing strategy, promotion and resources required.

Learners will work in a small team and by the end of the unit they will have the opportunity to develop a business idea which is commercially viable. Furthermore, they will present the idea to prospective investors/stakeholders.

Learning Outcomes

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

1. *Understand the employability skills required for Industry 4.0*
2. *Use idea generation techniques to come up with ideas and evaluate chosen ideas*
3. *Understand the various stages of product and/or service development*
4. *Work in a team to develop a business idea which is commercially viable*

CDKSK-406-2001: English

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

The main objective of this unit is to prepare students to use the English language to understand, analyse, organise and communicate specific technical knowledge by inferring meaning from, and using, embedded information, being able to evaluate information critically and communicate through different types of texts, as required by various but often specific technical contexts within the selected field of study.

The emphasis is on the processes needed to transition from use of the English language in General Education to that required for access to Higher Education.

In particular, L4 Key Skills English is targeted at learners who have completed Foundation College programmes (Levels 1 to 3) and seek to further their studies at Technical or Degree level.

In this respect, this unit recognises the necessity to meet two linguistic demands at this threshold level; strengthening students' linguistic competences to be able to communicate more specifically within their vocational area and stream and to prepare them for more rigorous academic thinking, research and writing as necessitated by degree courses.

Being introduced at this level are core and elective unit outcomes. Reading and writing outcomes are core components in this syllabus while listening and speaking are elective components. Every L4 programme must deliver the two core outcomes and any one of the two elective learning outcomes. The elective criteria to be assessed cannot be selected from and across both outcomes.

Learning Outcomes

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

1. *Read technical texts effectively to improve knowledge of the subject area;*
2. *Understand information presented orally in the form of recordings, or talks, discussions, seminars, interviews or presentations;*
3. *Demonstrate own understanding of the subject matter via oral presentation, mock interviews or similar oral delivery;*
4. *Write a research paper or technical report demonstrating cohesion, structure and appropriate style.*

CDKSI-406-1901: Il-Malti għall-Istitut tas-Servizzi fil-Komunità (ICS), tax-Xjenzi Applikati (IAS) u għall-Arti Kreattiva (ICA)

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Deskrizzjoni tal-Unità

Din l-unità hija intenzjonata li ssaħħaħ il-ħiliet tal-qari, is-smiġħ, it-taħdit u l-kitba bil-Malti għall-istudenti tar-raba' livell fi ħdan l-Istitut tas-Servizzi fil-Komunità (ICS), l-Istitut tax-Xjenzi Applikati (IAS) u l-Istitut għall-Arti Kreattiva (ICA). Il-ħsieb aħħari huwa dejjem li l-istudenti jsaħħu dawn l-erba' ħiliet biex 'il quddiem ikunu jistgħu japplikawhom b'mod korrett fuq il-post tax-xogħol tagħhom.

L-istudenti se jkunu qed jitharrġu janalizzaw testi moqrija u jifhem l-kontenut primarju tagħhom. Mhux biss, imma għandhom ukoll jagħrfu messaġġi mhux daqstant diretti fl-istess testi, għal fehim aktar sħiħ u komplut.

Dan jghodd ukoll għal kuntesti differenti ta' smiġħ. Biex komunikazzjoni tkun effettiva jeħtieġ li wieħed jitharreġ jisma' sew u jifhem dak li qed jingħad. Xi drabi, minkejja li nkunu qed nitkellmu bl-ilsien nattiv tagħna, mhux dejjem niftehmu tajjeb u dan jista' jwassal għal diversi konvergenzi kemm fuq il-post tax-xogħol u anki fil-ħajja soċjali tagħna. L-istudenti se jkunu qed jitharrġu wkoll jiformolaw opinjoni fuq suġġetti u argumenti mismugħa minn lat kritiku.

L-istess punt jghodd għat-taħdit. L-istudenti għandhom ikunu mħarrġa kemm fit-taħdit produttiv kif ukoll dak interattiv. Minkejja li l-influenza tal-Ingliż qiegħda dejjem tkompli tikber u anki fuq il-postijiet tax-xogħol issib min jagħżel li jitkellem bl-Ingliż, madanakollu ma nistgħux niċħdu l-fatt li fuq il-postijiet tax-xogħol, it-taħdit, sew dak bejn min iħaddem, il-ħaddiema nfushom u anki l-klijenti, b'mod ġenerali jsir bil-Malti. Għalhekk l-istudenti għandhom ikunu kapaċi jitkellmu b'Malti tajjeb u ċar, b'vokabolarju addattat skont il-qasam partikulari u l-kuntest tax-xogħol tagħhom. L-għan ta' meta wieħed jitkellem huwa dak li jiġi mifhum, li jikkomunika tajjeb ma' ħaddieħor. Għaldaqstant wieħed għandu jitharreġ ukoll fit-taħdit interattiv; kif wieħed jikkomunika tajjeb mal-oħrajn. Nuqqas ta' komunikazzjoni ħafna drabi twassal għal diffikultajiet u xi drabi anki kunflitti, speċjalment fuq il-post tax-xogħol.

Se tkun qed tingħata wkoll l-importanza li jistħoqqilha, il-kitba. Persuna Maltija għandha jkollha bażi tajba ta' għarfien tar-regoli tal-ortografija u l-grammatika biex meta tuża l-ilsien nattiv fil-kitba tagħha tagħmel dan bl-inqas żbalji possibbli. L-istudenti se jkunu qed jitharrġu wkoll fi traduzzjonijiet mill-Ingliż għall-Malti. Minkejja li nistgħu nitqiesu fortunati li pajjiżna huwa pajjiż bilingwali u li l-Ingliż huwa wkoll lingwa ufficjali tagħna, flimkien mal-Malti, xi drabi l-influenza tal-Ingliż mhux dejjem tgħin lill-individwu jagħmel użu tajjeb mill-Malti. Il-mezzi ta' komunikazzjoni u l-influenza ta' sorsi oħra bħall-midja soċjali, mhux dejjem qed iservu ta' influwenza pożittiva għal tfal u zgħażaġħ Maltin f'dak li għandu x'jaqsam mal-kitba bil-Malti. Għalhekk f'din l-unità l-istudenti se jkunu qed jitharrġu wkoll f'dan il-qasam bl-iskop aħħari jkun li fuq il-post tax-xogħol jagħmlu użu tajjeb ukoll mill-Malti miktub. Dan jintrabat ukoll mal-fatt li jridu jibqgħu aġġornati ma' xi tibdil li jista' jsir minn żmien għal żmien fil-lingwa inkluż aġġornamenti fl-ortografija.

Il-Kisbiet mit-Tagħlim (Learning Outcomes)

Fi tmiem din l-unità l-istudenti għandhom ikunu kapaċi:

- 1. Janalizzaw testi tekniċi moqrija u jagħmlu distinzjoni bejn il-kontenut primarju u dak sekondarju;*
- 2. Jaddattaw strateġiji varji biex jifhmu u jsegwu kuntesti differenti ta' smiġħ, b'mod partikulari dawk relatati ma' oqsma differenti tax-xogħol, u jiformolaw opinjoni dwar dak li jkunu semgħu;*
- 3. Ifissru ruħhom tajjeb u b'mod effettiv bil-Malti mitkellem kemm għal skop ta' komunikazzjoni produttiva kif ukoll dik interattiva;*
- 4. Jiktbu tajjeb bil-Malti skont ir-regoli ortografiċi u grammatikali tal-lingwa, jinqadew b'vokabolarju wiesa' u jhaddnu stili xierqa skont dak li hu mitlub f'kuntesti varji fuq il-postijiet tax-xogħol;*
- 5. Japplikaw b'mod tajjeb il-Malti meta jiġu biex jaqilbu kuntesti varji mill-Ingliż, relatati mal-qasam tagħhom, bil-kitba.*

CDKSK-406-2002: Individual and Social Responsibility

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

Since time immemorial, humanity always had to face challenging questions and situations, related to the responsibilities, each individual and society at large, had to carry along their existence. In this unit, learners will understand what existing in today's world really means by reflecting on themselves, their roots, past, and their place in the community.

Learners will also have the possibility to build or enhance their sense of duty and obligation, as well as personal leadership. This will engage the student in forging own moral and ethical framework and *raison d'être*.

This process will then be linked to the various ideas and theories that developed throughout different historical epochs - which reflect man's commitment to better understand his and society's commitment to mould life according to chosen values, such as peace, helping those in need, promoting and implementing human rights, freedom of speech, movement and cult, protecting vulnerable members of society, as well as eliminating unfair discrimination against women, refugees and people with disabilities.

Learning Outcomes

On completion of this unit the student will be able to

- 1. Identify the challenges faced in today's society, which impact own existence and social context.*
- 2. Discuss the impact of today's challenges vis a vis current events.*
- 3. Reflect about own values within today's social and cultural realities.*
- 4. Debate the relevance of a moral framework in today's society.*