MQF Level 4

AS4-04-21

Advanced Diploma in Health Sciences

Course Specification

Course Description

This diploma has been developed to prepare students for health related careers.

Students will learn about the impact of human beings on the environment, be able to understand the physical and psychological changes of ageing, understand aspects of the anatomy and physiology of the human body systems, and build competences in dealing with people with health problems and with challenging behaviour.

Through work placements students will get the chance 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
4 SEC/O-Level/SSC&P (Level 3) passes Compulsory: English Language, Mathematics, Biology
Preferred: Maltese, Chemistry, Health and Social Care

Current Approved Programme Structure

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

ASPHY-406-1505 Anatomy for Health Practice

Unit level (MQF): **4**

Credits: **6**

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): **4**

Credits: **6**

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): 4

Credits: 6

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 and describe a range of individuals who may require care.*
2. *Identify and explain the differences and similarities in care provision individuals may require, whilst gaining a deeper knowledge of the Psychological and Sociological impact requiring care can have.*
3. *Identify relevant support services and to what extent these services meet the needs of the individuals who use them, also identifying barriers and the legislations in place to promote and protect the individuals.*
4. *Identify the skills, attributes and values that are needed to work in a care environment, also explain the role of the Multi-Disciplinary Team (MDT) in the care planning process for individualised care.*

ASHSC-406-2102 Development Through Life-Stages

Unit level (MQF): **4**

Credits: **6**

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. *Demonstrate knowledge of stages of growth and development through life.*
2. *Display an understanding of genetic, environmental and social factors.*
3. *Demonstrate knowledge of changes through stages of the ageing process.*
4. *Provide application of potential effects of life factors and events on the development of the individual.*

ASSOC-406-1501 Sociological Perspectives

Unit level (MQF): 4

Credits: 6

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): 4

Credits: 6

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): 4

Credits: 6

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): 4

Credits: 6

Unit Description

The unit is designed to enable students the opportunity to develop their knowledge and understanding of the safe handling of medicines. It will also introduce the students to appropriate legislation related to the safe handling of medicines.

This unit will allow learners to develop their knowledge and understanding of the legal aspects of medication, types of medication and safe storage of medications.

The unit will enable the student to develop knowledge and understanding the routes of administration for different types of medications. The unit will also cover the importance of record keeping and the role of accountability, responsibility and confidentiality related to the safe handling of medicines

Learning Outcomes

On completion of this unit the learners will:

1. *Explain the different classifications and categories of medicines including where they can be obtained.*
2. *Consider the appropriate legislation, which is relevant to the safe handling of medicines, including the storage.*
3. *Clarify the method for the safe administration of medicines.*
4. *Describe the role of accountability, confidentiality and responsibility in the role of medicines.*

ASNTR-406-1505 Nutrition

Unit level (MQF): 4

Credits: 6

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): 4
Credits: 6

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): 4

Credits: 6

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. *Describe 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): **4**

Credits: **6**

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 case 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): 4

Credits: 6

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): 4

Credits: 6

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): 4

Credits: 6

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.*