MCAST

MQF Level 4

AG4-01-21

Advanced Diploma in Animal Management and Veterinary Nursing

Course Specification

Course Description

This course offers the learner a wide perspective in different aspects of fish management and will provide learners with a broad knowledge and aptitude related to the fish husbandry sector and industry. Learners will be given the required knowledge, skills and competences in both farmed and ornamental fish husbandry industries. This programme of studies also exposes learners to key concepts related to wild stock fisheries management.

The programme will give an opportunity to learners to gain experience while learning new skills. Learners are constantly encouraged to relate theory to practice at all stages through assignments, projects, practical work and work placements. Scheduled fish husbandry duties form an integral part of the curriculum

Programme Learning Outcomes

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

1. Understand a number of scientific and technical aspects in the fish husbandry area.

2. Understand the anatomy, physiology, behaviour and health of fish.

3. Undertake work-related experience in the land-based sector (Aquaculture).

4. Develop business ideas and carry out investigative projects in the land-based sector (Aquaculture).

Entry Requirements

- MCAST Diploma in Fish Husbandry
- or MCAST Diploma in Animal Care
- or MCAST Diploma in Horticulture
- or MCAST Diploma in Applied Science
- or 4 SEC/O-Level/SSC&P (Level 3) passes

Current Approved Programme Structure

Unit Code	Unit Title	Year	ECVET
ASCHM-406-1603	Basic Chemistry	1	6
ASH&S-406-1513	Health and Safety and First Aid	2	6
ASASC-406-1602	Environmental Science	1	6
ASFDD-406-1501	Food Processing: Cottage Industry and Fermentation	2	6
ASFDD-406-1502	Global Agriculture and Trade	2	6
ASHRT-406-1501	Rural Sociology, topography and Structures	2	6
ASANC-406-1601	Animal Biology and Physiology	1	6
ASANC-406-1502	Principles of Animal Nutrition	1	6
ASANC-406-1503	Poultry Production	2	6
ASANC-406-1504	Dairy Production	2	6
ASANC-406-1505	Pig Production	2	6
ASVTN-412-1803	Veterinary Nursing 1	1	12
ASVTN-409-1804	Veterinary Diagnostic Techniques	2	9
ASANC-406-1506	Advanced Grooming	1	6
CDKSK-406-2001	English	1	6
ASWBL-409-1801	Work Related Experience	2	9
CDKSK-404-1915	Employability and Entrepreneurial Skills	2	4
CDKSK-402-2104	Community Social Responsibility	2	2
CDKSK-406-2109	Information Technology	1	6
ASANM-400-1601	Practical*	1 & 2	0
	Total ECVET/ECTS		120

* Learners following this programme need to also follow a practical component which is not accredited. This is assessed on a pass/fail basis, and is shown also on the final transcript

Unit: ASCHM-406-1603 Basic Chemistry

Unit level (MQF): **4**

Credits: **6**

Unit Description

The aim for this unit is to provide students with the basic principles of chemistry such that it underpins their understanding of the biological molecules within plant and animal tissues and how they interact with inert and active molecules within their environment. Although theoretical, the unit is complemented by a significant amount of practical work to allow students to investigate chemical pathways, interactions and laws, and to develop key laboratory skills that can be transferred to other scientific disciplines. Skills such as writing and interpreting chemical formulae, equations and calculations will be developed as well as quantitative and qualitative investigations of chemical principles.

The unit begins with an examination of the periodic table and the physical properties of elements that have led to its structure. This leads into the study of chemical bonding with the focus on the three strongest types of bonds (covalent, ionic and metallic) before broadening out to cover alternative bond types.
The unit then turns its attention to exploring the biologically important molecules and their properties in detail, including water, carbohydrates, structural and functional proteins, lipids.

Learning Outcomes

On completion of this unit the learner will be able to

1. *Describe atomic structure, properties of identified elements and principles of bonding.*
2. *Describe and apply the principles of equilibrium.*
3. *Discuss the chemistry of biologically important molecules.*
4. *Demonstrate competence in a range of skills necessary in the study of chemistry.*

Unit: ASH&S-406-1513 Health and Safety and First Aid

Unit level (MQF): 4

Credits: 6

Unit Description

The Health and Safety element of this course is knowledge, skill and competency based unit which will allow learners to recognise, practice and display the necessary skills for competent analytical analysis of Health and Safety within an Agribusiness workplace setting.

Learners will develop an understanding of the hazards and risks which can face a worker in dealing with everyday issues while working in an Agribusiness setting including working with animals and machinery. They will be able to apply Health and Safety Legislation for controls in 'so far as is reasonably practicable' or employ best practise.

This unit is relevant to all employees and the skills developed can be demonstrated in an Agribusiness setting. The Candidate will become familiar with the Risk Assessment core principles and practice, and the desirable actions and Controls needed to allow a 'suitable and sufficient' Assessment is carried out. The unit will allow the candidate to develop a good understanding of the role of Health and Safety Legislation and the need to meet its requirements within an Agribusiness workplace.

Learners will have become competent in the execution of a Risk Assessment and will have a clear understanding of the Legal requirements needed to comply in completing and recording within an Agribusiness setting. By meeting all criteria in this unit, learners will also obtain a first aid certificate, making them certified first aiders.

Learning Outcomes

On completion of this unit the learner will be able to

1. *Understand common Health and Safety terminology and the information of the Health and Safety Legislation.*
2. *Identify common Health and Safety hazards within a farm setting.*
3. *Develop the skill in Assessing Risks to control and minimise Health and Safety risks.*

4. *Use first aid procedures to respond to emergency situations.*

Unit: ASASC-406-1602 Environmental Science

Unit level (MQF): **4**

Credits: **6**

Unit Description

The aim of this Unit is to stimulate analytical thinking and develop skills for scientific inquiry that will provide the student with a good understanding of the environment. Learners will learn the importance of how the different environmental systems interact and the implications of the environment on human society. The Environmental Science Unit is to be approached with the student exercising problem solving and developing their investigation skills.

The Environmental Science Unit covers the main environmental topics of ecology, climate change, nutrient cycles and biodiversity. Learners are encouraged to research environmental issues and so develop their scientific literacy. Furthermore, learners need to practise communicating their research findings and thus develop their presentation skills.

Learners who complete the Environmental Science Unit will be able to utilise their understanding of the main principles of environmental science and apply the scientific skills learnt. In addition, learners will be able to draw on their environmental knowledge to develop and undertake practical investigations.

In this Unit, learners are to apply the environmental principles learnt to selected local contexts in order to complete the assessment tasks. In the Climate area of study, learners choose a particular greenhouse gas to research further and compile a mini presentation, narrating how their local climate is or could be affected. Likewise with the Nutrient Cycle area, learners are to choose one cycle from which to research a particular aspect. Learners must demonstrate their knowledge of biodiversity threats by selecting a threatened animal in the region they live and present the underlying principles behind the threat and solutions to prevent the loss of this animal.

Learning Outcomes

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

1. *Explain general ecological principles in order to understand how organisms interact with their environment.*
2. *Show how climate change is affected by mankind for preventing further harm.*
3. *Explain how nutrient cycles function so as to be aware of their impact on the environment.*
4. *Appreciate the complexities of biodiversity for managing ecosystems.*

Unit: ASFDD-406-1501 Food Processing: Cottage Industry and Fermentation

Unit level (MQF): 4

Credits: 6

Unit Description

For decades before the medieval period, and for years later, people in different parts of the world used a selection of approaches to preserve foods for later consumption at a time when there was no electricity to refrigerate food.

This unit provides an understanding of the main Cottage Foods that learners can make in the kitchen of their home residences. Not all food prepared domestically can be vended as Cottage Foods. They must be safe and non-hazardous foods products that do not need temperature and/or time controls to remain safe for consumption. The unit is relevant to learners wishing to further their knowledge of traditional food preservation methods, principles and shelf-life control and stabilisation.

Drying, pickling, curing, salting, sugaring, canning and fermenting are all techniques that have been essential activities throughout history aiming at killing or inhibiting the growth of microorganisms prolonging the shelf-life of the product.

This unit will explore how each of these techniques work, benefits, and limitations of food safety and quality perspective. It will also provide to students step-by-step guideline on how to process and produce the products themselves. The unit will also be introducing the learner to various bee products and the benefits of the amazing discovered by scientists.

Finally students should have the underpinning knowledge and understanding to make food using all the main traditional preservation method.

Learning Outcomes

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

1. *Discuss principals and importance of food preservation.*
2. *Evaluate the technical and practical skills in many aspects of the Cottage Industry and Prepare food in a hygienic way.*
3. *Evaluate the role of fermentation microorganisms in major food fermentations.*
4. *Discuss the different bee products and related benefits.*

Unit: ASFDD-406-1502 Global Agriculture and Trade

Unit level (MQF): 4

Credits: 6

Unit Description

In an ever evolving world that has a challenging background of population growth; changing economic development, development of trading groups and global supply chains; increasing food demand and also building concerns over food security provides the backdrop for this unit of study. The unit will study real life examples that underpin the need to secure 'more food from equal or less resources' in a sustainable, long term manner. These examples are taken from around the world and incorporate both intensive and extensive agriculture systems and food production methods. The unit will focus initially on the factors influencing, and challenges for the effective delivery of food in a complex food supply and the "push-pull" mechanisms involved in food demand in a world context. Alongside this theme the global view of nutrition and malnutrition (both over and under-eating) will be addressed.

The unit will also cover the different agricultural systems used worldwide such as extensive, semi-intensive, intensive, pastoralism, slash-and-burn, etc. Commodity trading will be discussed including FAOSTAT data, major importers and exporters of agricultural commodities and an introduction to food trade (role of WTO, Doha Rounds, etc.) Furthermore consideration and discussion of the most significant, current food chain issues, drivers for change and their impact on food business will be investigated. This will include identifying recent developments in science and technology in the agri-food sector including breeding and biotechnology adoption; protected agricultural systems and advancing post-harvest controls and storage opportunities. This unit will provide students with an understanding of how agriculture and trade work on a global scale. It will also provide them with: the skill to plan, draft and organise thoughts; an opportunity to present ideas to both small and large groups as well as the ability to reflect on ideas and develop arguments supported by evidence.

Learning Outcomes

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

1. *Identify the main drivers for change in modern agri-food systems globally, and the need to consider greater intensification as the drive to produce more from less intensifies.*
2. *List the strengths and weaknesses of large scale and intensive farming systems and low input systems.*
3. *Explain the main trends and issues in food supply and demand on a global and local scale.*
4. *Identify the main drivers for change in modern agri-food systems globally, and the need to consider greater intensification.*

Unit: ASHRT-406-1501 Rural Sociology, Topography and Structures

Unit level (MQF): 4

Credits: 6

Unit Description

This unit revolves around the 'making of the landscape,' and an exploration of the various influences which have led to many turning points in Maltese agricultural history. Agriculture is a large scale land use and over centuries has resulted in an array of rural transformations across Europe. Landscape is a broad term and can incorporate an assemblage of physical attributes including rural landforms and structures and is a result of the interaction between nature and culture. The Maltese rural environment remains largely dominated by agriculture, however in the present day, the contribution of agriculture to the local economy is modest. Nevertheless, agriculture contributes to the local rural character, and the geomorphology of the Maltese Islands has resulted in various topographic features that contribute to the diversity of the landscape. Various military structures, archaeological features and sites exist, as well as the prominence of traditional rubble walls surrounding agricultural fields. Each landscape is a result of the superposition of different layers of changes that have occurred at different points in time. The Maltese landscape is unique in its physical structure, reflecting the diverse settlement patterns and urban forms introduced over various centuries. The traditional function of rural settlements is agrarian, however this is changing with the reduction in the focus on agriculture in rural areas and the introduction of residential and industrial uses not related to agriculture.

This unit explores the relationship between rural structures and agrian community settlements and practices. It begins by investigating the structure and characteristics of Maltese rural communities; gaining an overview of their current role and function in the rural economy, in addition to a focus on the contrast between rural and urban land cover and use across the Island. The content then moves on to an exploration of the main features and structures of the rural environment in Malta, including common archaeological heritage, the significance of old farmhouses and rural structures, and a focus on geological features, focusing specifically on quarrying activities. From this, students will be encouraged to make connections between existing rural structures and the past activities and characteristics of agrarian societies. This will include an investigation of the ongoing interaction between rural communities and the environment, and a look at current threats and subsequent policies that are in place to protect rural structures. The unit subsequently focuses on the specific role of agriculture in Malta's history, and its trajectory in terms of its shifting position in the

rural economy. Students will gain an overview of the history and development of agrarian communities from earliest evidence (7th Century BC) to the present day. Alongside this, students will also learn about the main drivers of the agricultural trajectory in Malta, including the influence of policies, such as the CAP and the European Landscape Convention, and international demands. Finally, the unit will include an introduction into the construction of a rubble wall (or other specified rural structure); investigating various forms and styles of rural structures.

Learning Outcomes

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

1. *Outline the history and development of agrarian communities in Malta, describing their current structure, characteristics and occupation.*
2. *Identify how the main structures of the Maltese rural environment reflect the underlying topography and past land uses and practices of agrarian societies.*
3. *Establish how agriculture has played a fluctuating role in Malta's history, and review the factors and events that have affected Malta's agricultural trajectory.*
4. *Build a rubble wall (or other specified rural structure) and undertake a risk assessment of the rubble wall building process.*

Unit: ASANC-406-1601 Animal Biology and Physiology

Unit level (MQF): 4

Credits: 6

Unit Description

Full knowledge and understanding of the biological principles that underpin the functioning of all animals is essential for learners wishing to pursue a career working with animals. By having an appreciation of the biological structures and subsequent physiological function of an animal's body, the learner can make better informed management and husbandry decisions to promote best health, welfare and performance standards for the animal in question. To this end, the unit aims to bring together the scientific understanding with the practical and husbandry approaches used in animal management in order to develop the learner's understanding of the implications of management decisions in the context of the animal's biological needs. The unit will explore these issues within a range of important animals present in Malta; including ruminant and non-ruminant livestock, poultry, rabbits, fish and common companion animals.

The unit starts by examining the building blocks of all life – the cell and its components. Features of the cell have a fundamental influence on the functioning of that cell and appreciating the complexity of its anatomy and subsequent ability to operate within a given environment impacts daily on the husbandry procedures applied in daily routines. Understanding how cells then function as tissues and complex organs and systems gives the learner further understanding of how they are inter-related, and that management procedures should be adapted to optimize performance of the desired system to improve performance

Learning Outcomes

On completion of this unit the student will be able to

1. *Describe prokaryotic and eukaryotic cell structure and relate to function of individual cells and tissue types.*
2. *Describe the structure and function of biological systems in identified animal species.*
3. *Describe and explain the reproductive process in a range of animal species.*

4. *Demonstrate how the promotion of animal health and welfare principles support optimal physiological function for a range of animal species.*

Unit: ASANC-406-1502 Principles of Animal Nutrition

Unit level (MQF): 4

Credits: 6

Unit Description

Understanding the feed requirements of animals is an essential part of animal husbandry, whether the purpose of keeping those animals is for food production, breeding, as pets or as working animals. Their biological systems depend upon the provision of essential nutrients in the correct balance and in the correct format such that their bodies are able to utilize it. The study of nutrition therefore encompasses not only the characteristics and properties of the feed itself, but the method it is digested by, how the breakdown products are utilized in metabolic pathways, and the requirement for different nutrients by a variety of species at differing life stages. Being able to recognize signs of malnutrition and the biometrics measured to assess nutritional status is also an important part of ensuring the correct nutrition for animals so this unit introduces a number of examples of nutritional imbalance and deficiencies to illustrate these.

There are a number of areas where this unit articulates with topics covered in other units, for example Animal Biology and Physiology, Basic Chemistry and any unit focusing on production performance of farmed species, and there are numerous opportunities for applying the understanding of nutrition to husbandry procedures carried out in practical settings.

Learning Outcomes

On completion of this unit the student will be able to

1. *Describe the structure and function of the macro and micro nutrients required for a number of animal species.*
2. *Describe the digestive process for monogastrics, ruminants and hindgut fermenters.*
3. *Demonstrate competence in devising and implementing feeding regimes for a range of animal species at identified lifestages.*
4. *Discuss nutritional deficiencies and imbalances and their impact on animal health.*

Unit: ASANC-406-1503 Poultry Production

Unit level (MQF): 4

Credits: 6

Unit Description

The unit will develop the knowledge and skills needed to work in and manage a poultry production unit in the context of the range of poultry production systems. The range of poultry production systems include intensive and extensive (free range and organic) systems and cover both egg production and meat production. The species considered include hens, chickens, ducks, and turkeys. Students will learn how to plan the stocking of poultry batches and prepare chicks for dispatch. Working in the industry will involve working in egg rearing and egg laying units, breeder and growing farms as well as in hatcheries and feed-mills.

The unit will also cover different production systems, housing design, the types of equipment used, considerations for animal welfare, environmental impact, food safety and husbandry legislation. The compilation of records and the interrogation of those records will form part of the course. Production records are to include Feed Conversion Ratio (FCR), mortality/liveability, Hen-Housed (HH) and Hen-Day (HD) production, percentage fertility and hatchability.

An important aspect of poultry production is the nutritional and welfare needs of the birds and this unit will cover the planning of poultry feeding regimes and effective lighting regimes for both broilers and pullets. This unit will describe the preparation of poultry and poultry products for market, including egg grading, egg defects and preparation for transportation.

Learning Outcomes

On completion of this unit the student will be able to

1. Develop knowledge about different poultry species, their breeding, housing and management.
2. Recognise different nutritional and welfare needs of poultry species at various stages of production.
3. Keep and utilise records for different strains of poultry.
4. Prepare poultry and poultry products for market.

Unit: ASANC-406-1504 Dairy Production

Unit level (MQF): **4**

Credits: **6**

Unit Description

Dairy production is an important part of agricultural production and, ever more so sheep and goat milking is playing an important role in global milk production. The purpose of this Dairy Production Unit is to enable learners to think scientifically and develop their analytical thinking. Through this study students will gain a good understanding of the systems used in cow, sheep and goat milk production. Learners will develop investigation skills through the process and at the same time build up their dairy production knowledge.

The Dairy Production Unit deals with the important areas of production systems, animal rearing, milk production hygiene and breeding plans used in cow, sheep and goat farming. Learners who complete this unit will be able to draw on the knowledge and understanding of the main areas of dairy production and then apply the skills of scientific enquiry to practical investigation.

The Dairy Production Unit is a core unit in the Higher National Diploma in Animal Management. The unit is important to students wanting to further advance their knowledge of dairy production and they are encouraged to research current dairy production issues and thus develop their scientific literacy. On completion of the Unit, students will appreciate how animal nutrition, disease prevention, animal welfare, milk production hygiene and animal breeding all play an important role in dairy production.

Learning Outcomes

On completion of this unit the student will be able to

1. *Describe the production systems used in cow, sheep and goat farming.*
2. *Explain the concepts of rearing cows, sheep and goats.*
3. *Discuss dairy hygiene and milk production legislation.*
4. *Analyse reproduction processes and breeding options.*

Unit: ASANC-406-1505 Pig Production

Unit level (MQF): 4

Credits: 6

Unit Description

The aim of this unit is to introduce the learner to the principles and practice of pig production management, to equip them with the knowledge and understanding that is essential to inform the running of a sound commercial business, the skill set that is applicable to both the local (Maltese) and global pig industry context.

In sequence, the learner will firstly be presented with an overview of the structure of the pig industry globally and domestically, be informed of the issues and challenges confronting the modern pig producer and be made aware of the drivers for change in such a dynamic livestock sector. An understanding of the diversity of pig production systems i.e. intensive vs extensive, is fundamental together with an educational insight into the factors which affect the fluctuations in pig product market pricing. The learner will be made aware of the increasing importance of the role of the primary producer in the context of pig meat supply chains, and the focus on such issues as welfare, food safety, environmental protection and sustainable practice and appreciate the factor impact on the economics of pig production.

The classic pig unit structure and function will be explained in detail using formal teaching methods together with practical instruction. Initial focus will be on the husbandry and management of the breeding sow, her reproductive cycle, its phases and the factors which affect productivity, performance and prolificacy. A comprehensive understanding of breed selection, principles of genetic improvement, nutrition, physical and climatic environmental requirements, health, welfare and disease control measures is essential for effective management of a modern bio-secure sow unit.

The learner will also be informed and learn about the factors affecting growth and production of progeny over the pre-weaning, and post-weaning growing and finishing phases culminating in the production of a saleable and marketable carcass most suited to market outlet requirement. Particular emphasis will be placed on the efficiency and relationship between the consumption of feed and growth. Throughout the unit and learning experience, each aspect of pig management will be linked to the need for an accurate record keeping system and a constant management appraisal of the economics

of pig production, physical and financial target achievements and the monitoring of performance indicators.

Learning Outcomes

On completion of this unit the student will be able to

1. *Describe the scale, structure and importance of the pig production sector in a local and global context.*
2. *Explain the commercial husbandry and management of the breeding sow.*
3. *Explain the commercial husbandry and management of pigs destined for meat production.*
4. *Demonstrate the importance and value of maintaining an accurate system of physical and financial record keeping.*

Unit: ASVTN-412-1803 Veterinary Nursing 1

Unit level (MQF): 4

Credits: 6

Unit Description

This unit will provide the Learner with the fundamental knowledge and skills to care for patients in a veterinary environment. An understanding of normal working practices within the veterinary environment will be provided to enable Learners to work safely and effectively in practice. The roles of different personnel in the veterinary environment and how these interlink will be covered. The principles of disinfection and disease control will be considered to enable the Learner to outline how to prevent cross-contamination between animals. Learners will be able to select suitable disinfectant agents and equipment, and understand how they are used to maintain clean clinical environments including consulting rooms, animal accommodation and operating theatres. The principles and practice of waste disposal will be reviewed.

Through the course of the unit, Learners will develop competent handling and restraint skill for dogs, cats, exotic animals and horses. Learners should be able to handle and restrain animals for clinical examination and venepuncture, and move animals between environments in a safe and effective manner. They will develop knowledge and understanding of the signs of health and disease, enabling them to monitor and record in-patient clinical parameters to facilitate a high standard of in-patient care. They will be able to record temperature, pulse and respiration rates for dogs, cats, exotic animals and horses.

A basic understanding of in-patient care should be included to enable Learners to meet animal welfare needs through the provision of suitable accommodation, food, water and social enrichment. The principles of accurate record keeping and their importance to ongoing patient care and monitoring will be assessed. Learners will be able to distinguish between the needs of surgical, infectious, medical and recumbent in-patients. The provision of barrier nursing to prevent spread of infectious disease should be discussed and Learners should be able to implement barrier nursing in practice.

Learning Outcomes

On completion of this unit the student will be able to

1. *Recognise signs of health and disease in dogs, cats, exotic animals and horses.*
2. *Provide suitable routine nursing care for in-patients.*
3. *Prepare and maintain clinical environments and animal accommodation in a clean, safe and effective manner which meets patients' needs.*
4. *Demonstrate competent and professional handling and restraint of dogs, cats, exotic animals and horses.*

Unit: ASVTN-409-1804 Veterinary Diagnostic Techniques

Unit level (MQF): 4

Credits: 6

Unit Description

This unit is designed to provide an introduction to veterinary laboratory diagnostics and diagnostic imaging. The diagnostic process will be considered in its entirety, from initial clinical examination to diagnosis. The unit will develop a working understanding of the diagnostic process and methods used within this, to therapeutically assess animal health and disease support to support Learners aiming to progress to a career within veterinary practice.

A variety of veterinary diagnostic techniques will be explored to enable the learner to understand the legislation and principles which govern their use in veterinary practice, including advantages and disadvantages of individual techniques, and their potential application within clinical cases. This will enable the learner to make judgements on the role of individual and combinations of diagnostic techniques within the clinical investigation of animal health.

Radiography and ultrasonography will be covered in detail to ensure Learners understand the principles that underpin successful image production within these techniques, what they are used for and the role of a veterinary nurse within them. Learners will also gain a working knowledge of common laboratory tests used within veterinary diagnosis, enabling them to identify correct sampling techniques and appropriate storage for hair, blood, faecal and skin samples. Learners will develop a range of basic laboratory skills to ensure they possess the fundamental skills required in an in-house veterinary diagnostic laboratory, including microscopy, blood smears and identification of endoparasites and ectoparasites.

By the end of the unit, practically learners will be able to correctly restrain animals for venepuncture and be able to demonstrate basic radiographic positioning in the dog and cat.

Learning Outcomes

On completion of this unit the student will be able to

1. *Explain the theory of diagnosis and analyze how it is utilized in the assessment of animal health and disease.*
2. *Describe the fundamental principles for a range of veterinary diagnostic imaging techniques and be able to apply these to justify the appropriate use of different techniques within clinical diagnosis.*
3. *Apply the theory behind a range of veterinary diagnostic laboratory techniques and be able to identify correct sampling and storage methodologies.*
4. *Demonstrate practical competency in radiographic positioning and routine laboratory tests.*

Unit: ASANC-406-1506 Advanced Grooming

Unit level (MQF): 4

Credits: 6

Unit Description

Advanced grooming is a practical unit. It aims to develop the essential knowledge and understanding to underpin practical skills in grooming and clipping to enable Learners' to achieve professional standards of horse presentation. This will include reviewing the principles and benefits of grooming for health, as part of rehabilitation programmes, in preparation for exercise and after exercise has been undertaken. How to prepare a safe working environment for grooming and clipping, for horses and handlers, will be identified, which will include identification and maintenance of grooming and clipping equipment. Learners will gain an appreciation into which different trimming and clipping techniques are used in horses' linked to exercise levels and disciplines. They will also learn how to select suitable trimming and clipping methods to enhance individual horse's appearance.

A key aspect of effective grooming is the ability to recognise signs and symptoms of skin disease and / or poor coat condition. To enable Learner's to be able to do this, a fundamental knowledge and understanding of the anatomy of the skin will be delivered. Common skins diseases for a range of animals will be discussed, including describing the clinical signs of specific diseases and explaining the treatment methods available for them. Learners' should be able to identify common ectoparasites of the skin, explain their impact to the animal's health and propose effective preventive methodologies to treat current infestations and prevent future ones.

By the end of the unit, Learners will be able to demonstrate practical competency in grooming and clipping horses.

Learning Outcomes

On completion of this unit the student will be able to

1. Describe the anatomical structure of the skin.
2. Identify common dermatological diseases of dogs, cats, exotic animals and horses.
3. Assess the benefits of grooming in horses.
4. Demonstrate effective grooming, trimming, clipping and shearing in horses.

Unit: ASWBL-409-1801 Work-related Experience

Unit level (MQF): 4

Credits: 6

Unit Description

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

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

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

Learning Outcomes

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

1. *Describe the importance of applying a sustainable approach in the workplace.*
2. *Prepare for a sustainable work-related experience in the environmental sustainability sector.*
3. *Undertake a work-related experience in the environmental sustainability sector.*
4. *Review a work-related experience in the environmental sustainability sector.*