

MCAST PROGRAMMES - PUBLIC INFORMATION TEMPLATE (FULL TIME)

Institute	Institute of Applied Science
Department	Centre for Agriculture, Aquatics, and Animal Sciences

Programme Title	Bachelor of Science (Honours) in Animal management and Veterinary Nursing				
Course Code <i>To be filled in by Admissions Dept.</i>	AG6-W01-23		If the programme includes a WBL element, How is it accredited?		Internship
MQF/ EQF Level	Level 6	Type <i>(refer to Appendix 1 for Parameters)</i>	Qualification	Awarding Body	MCAST – Malta College of Arts, Science and Technology
Accreditation Status		Accredited via MCAST's Self Accreditation Process (MCAST holds Self-Accrediting Status as per 1st schedule of Legal Notice 296/2012)			
Mode of Delivery	Face to Face	Duration <i>(Academic Years or Semesters)</i>	3 Years	Mode of Attendance	Full-Time
Total Number of Credits	180 credits	Total Learning Hours <i>(25 Total Learning Hours for each ECTS)</i>		4500 hours	
Target Audience	Ages 16 - 65	Target Group <i>(the type of learners that the educational institution anticipates joining this programme)</i>	-		
Programme Fees	<p>There are no fees applicable to Maltese and other EU Nationals (as will be evidenced by their Identity Document)</p> <p>Fees apply for other International Applicants... for fee information and any related updates it is best to communicate with MG2i International through applyinternational@mcast.edu.mt</p> <p>One may consider checking about possible eligibility or otherwise for any exemption from fees by contacting the relevant section within MEYR (Floriana) – or visit the servizz.gov.mt website here</p>				
Date of Next Student Intake	For further information regarding upcoming student intake and applications time windows for same kindly click here				
Language of Instruction	The official language of instruction at MCAST is English. All notes and textbooks are in English (except for language courses, which will be in the respective language being instructed). International candidates will be requested to meet English language certification requirements for access to the course.				
Application Method	<p>Applications to full-time courses are received online via the College Management Information System. Applicants can log-in using Maltese Electronic ID (eID) in order to access the MCAST Admissions Portal directly and create one's own student account with the identity being verified electronically via this secure service.</p> <p>Non-EID applicants need to request account creation through an online form after that they confirm that their local Identification Document does not come with an EID entitlement. . Once the identity is verified and the account is created on behalf of the applicant, one may proceed with the online application according to the same instructions applicable to all other applicants.</p>				



	<p>For more information about how to apply online for a course at MCAST, please visit: https://mcast.edu.mt/how-to-apply-online-2/</p>
Information for Non-EU Citizens	<p>Non-EU candidates require a study visa in order to travel to Malta and join the course applied for (on a Full Time delivery mode). For further information re study-visa please access https://www.identitymalta.com/unit/central-visa-unit/.</p> <p>Further information International / TCN applicants should take note of before requesting to being considered for a programme of studies at MCAST, can be obtained through the respective FAQ found on https://mcast.edu.mt/important-information/</p>
IMPORTANT note to Non-EU Nationals / TCNs	<p>In instances where a TCN is applying for an MCAST programme of studies which includes Apprenticeship / Placement / Internship, it is the applicant's responsibility to check with the relevant Maltese Authority whether one would be eligible to have the necessary permits to be able to carry out the accredited Apprenticeship / Placement / Internship, success from which is expected in order to be able to successfully complete the selected programme of studies. Further information can also be obtained through the respective FAQ found on:</p> <p>https://mcast.edu.mt/important-information/</p>
Address where the Programme will be Delivered	<p><i>MCAST has four campuses as follows:</i></p> <p>MCAST Main Campus Triq Kordin, Paola, Malta</p> <p><i>All courses except for courses delivered by the Institute for the Creative Arts, the Centre of Agriculture, Aquatics and Animal Sciences and the Gozo Campus are offered at the Main Campus address (above).</i></p> <p><i>Courses delivered by the Institute for the Creative Arts, the Centre of Agriculture, Aquatics and Animal Sciences, or the Gozo Campus, are offered in one of the following addresses as applicable:</i></p> <p>Institute for the Creative Arts Mosta Campus Misraħ Ġhonoq Tarġa Gap, Mosta</p> <p>Institute of Applied Sciences Centre of Agriculture, Aquatics and Animal Sciences, Luqa Road, Qormi</p> <p>Gozo Campus J.F. De Chambray Street MCAST, Ġhajnsielem Gozo</p> <p><i>In the case of courses delivered via Online Learning, students will be following the programme from their preferred location/address.</i></p> <p><i>Programmes delivered via Blended Learning, and which therefore contain both an online and a face to face component shall be delivered as follows:</i></p> <ul style="list-style-type: none"> ○ Face to Face components – as per above address instructions

	<ul style="list-style-type: none"> Online components – from the student's preferred address.
Course Description <i>(Refer to Programme Specification)</i>	<p>This Bachelor's degree aims at providing learners with the opportunity to specialise in the veterinary nursing profession whilst also learning subjects related to other aspects of livestock management and animal care. The students will have the opportunity to study various aspects of veterinary nursing of various animals whilst practising clinical skills throughout the duration of the course. The course will also tackle subjects related to wildlife sciences and the business components of animal enterprises.</p> <p>Furthermore, learners will undertake a research project whereby they will be expected to select a topic for investigation following an established methodology.</p>
Deskrizzjoni tal-Kors <i>(Refer to Programme Specification)</i>	<p>Dan il-kors, li jwassal għal baċcellerat, għandu l-għan li jipprovdi lill-istudenti l-opportunità li jspecjalizzaw fil-professjoni ta' infirmier/a veterinarju filwaqt li jinkludi fih suġġetti relatati mal-ġestjoni tat-trobbija u l-kura tal-annimali. L-istudenti jkollhom l-opportunità li jistudjaw aspetti varji sabiex ikunu kapaċi jassistu fil-kura lil annimali differenti filwaqt li jipprattikaw dawn il-ħiliet kliniċi matul il-kors kollu. Dan il-kors jitratta wkoll suġġetti differenti li għandhom x'jaqsmu max-xjenzi relatati mal-fawna salvaġġa u aspetti kummerċjali ta' intrapriżi relatati mal-annimali. L-istudenti jwettqu wkoll proġett ta' riċerka li għalih ikunu mistennija jagħżlu suġġett biex jinvestigawh billi jsegwu metodoloġija stabbilita.</p>
Career Opportunities:	<p>Registered Veterinary Nurse, Veterinary Technician, Farm Manager, Nutritional Adviser</p>
Entry Requirements <i>(Refer to Prospectus / Course Page on MCAST website)</i>	<p>Internal Progression route.... MCAST Advanced Diploma in Animal Management and Veterinary Nursing or MCAST Advanced Diploma in Fish Management or MCAST Advanced Diploma in Horticulture</p> <p>OR</p> <p>2 A-Level passes and 2 I-Level passes</p>
Other Notes related to this Programme, and which are to be taken note of	<p>-</p>
Programme Learning Outcomes <i>(Refer to Programme Specification)</i>	<p>At the end of the programme the learner will be able to:</p> <ol style="list-style-type: none"> 1. Recognise the fundamental principles of animal anatomy, physiology, behaviour and nutrition. 2. Undertake practical tasks related to veterinary nursing including the application of treatments in an independent manner. 3. Appraise various livestock production systems. 4. Apply various research methods to carry out an advanced project study based on scientific research related to specific units within the course's area of study.
Teaching, Learning and Assessment Procedures	<p>The programmes offered are vocational in nature and entail both theoretical lectures delivered in classes as well as practical elements that are delivered in laboratories, workshops, salons, simulators as the module requirements dictate.</p> <p>Each module or unit entails a number of in person and/or online contact learning hours that are delivered by the lecturer or tutor directly (See also section 'Total Learning Hours').</p> <p>Access to all resources is provided to all registered students. These include study resources in paper or electronic format through the Library and Resource Centre as</p>



	<p>well as tools, software, equipment and machinery that are provided by the respective institutes depending on the requirements of the course or module.</p> <p>Students may however be required to provide consumable material for use during practical sessions and projects unless these are explicitly provided by the College.</p> <p>All Units of study are assessed throughout the academic year through continuous assessment using a variety of assessment tools. Coursework tasks are exclusively based on the Learning Outcomes and Grading Criteria as prescribed in the course specification. The Learning Outcomes and Grading Criteria are communicated to the Student via the coursework documentation.</p> <p>The method of assessment shall reflect the Level, credit points (ECTS) and the schedule of time-tabled/non-timetabled hours of learning of each study unit. A variety of assessment instruments, not solely Time Constrained Assignments/Exams, are used to gather and interpret evidence of Student competence toward pre-established grading criteria that are aligned to the learning outcomes of each unit of the programme of study.</p> <p>Grading criteria are assessed through a number of tasks, each task being assigned a number of marks. The number of grading criteria is included in the respective Programme Specification.</p> <p>The distribution of marks and assessment mode depends on the nature and objectives of the unit in question.</p> <p>Coursework shall normally be completed during the semester in which the Unit is delivered.</p> <p>Time-constrained assignments may be held between 8 am and 8 pm during the delivery period of a Unit, or at the end of the semester in which the Unit is completed. The dates are notified and published on the Institute notice boards or through other means of communication.</p> <p>Certain circumstances (such as but not limited to the COVID-19 pandemic) may lead Institutes and Centres to hold teaching and assessment remotely (online) as per MCAST QA Policy and Standard for Online Teaching, Learning and Assessment (Doc 020) available via link https://www.mcast.edu.mt/college-documents/</p> <p>The Programme Regulations pertaining to this Programme's MQF/EQF level available at: link https://www.mcast.edu.mt/college-documents/, apply.</p>
Grading System	<p>All MCAST programmes adopt a Learner-centred approach through the focus on Learning Outcomes. The assessment of MCAST programmes is criterion-referenced and thus assessors are required to assess learners' evidence against a pre-determined set of Learning Outcomes and Assessment Criteria.</p> <p>For a student to be deemed to have successfully passed a unit, a minimum of 50% (grade D) must be achieved.</p> <p>All full time units are individually graded as follows:</p> <ul style="list-style-type: none">A* (90-100)A (80-89)B (70-79)C (60-69)D (50-59) <p>Unsatisfactory work is graded as 'U'.</p>



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

Programme Structure	Unit Code	Unit Title	ECTS	Year	Semester
	ASVTN-506-2201	Companion Animal Care and Husbandry	6	1	A
	ASVTN-503-2202	Triage and Emergency Nursing	3	1	B
	ASVTN-506-2203	Veterinary Anaesthesia and Analgesia	6	1	A
	ASVTN-506-2204	Animal Anatomy and Physiology I	6	1	A
	ASVTN-506-2205	Animal Anatomy and Physiology II	6	1	B
	ASVTN-506-2206	Microbiology and Biochemistry	6	1	A
	ASVTN-506-2207	Principles of Companion Animal Nutrition	6	1	A
	ASVTN-506-2208	Veterinary Nursing I	6	1	A
	ASVTN-506-2209	Veterinary Nursing II	6	1	B
	CDKSK-503-2328	English for Academic Purposes	3	1	A



ASVTN-506-2210	Veterinary Pharmacology	6	1	B
ASCLP-000-2215	Practicum (Clinical Practice) I	N/A	1	Year
ASVTN-506-2211	Livestock Production I	6	2	Year
ASVTN-503-2212	Clinical Companion Animal Behaviour	3	2	A
CDKSK-604-2336	Entrepreneurship	4	2	B
CDKSK-602-2335	Community Social Responsibility	2	2	B
ASRSH-506-1509	Research Methodologies	6	2	B
ASVTN-506-2213	Parasitology	6	2	A
ASVTN-506-2214	Microbiology and Pathology	6	2	A
ASVTN-506-2215	Veterinary Diagnostic Techniques I	6	2	A
ASVTN-503-2216	Veterinary Diagnostic Techniques II	3	2	B
CDKSK-503-2329	English for Dissertation Writing	3	2	A
ASWBL-509-2202	Work-Based Learning	9	2	B
ASVTN-506-2217	Veterinary Nursing III	6	2	B
ASCLP-000-2216	Practicum (Clinical Practice) II	N/A	2	Year
ASANM-606-1509	Animal Welfare, Ethics and Legislation	6	3	B
ASVTN-603-2218	Business Management	3	3	A
ASVTN-606-2219	Livestock Production II	6	3	B
ASVTN-603-2220	Meat Science	3	3	A
ASANM-606-1506	Wildlife Sciences and Conservation	6	3	Year
ASVTN-605-2221	Veterinary Surgical Nursing I	5	3	A
ASVTN-604-2222	Veterinary Surgical Nursing II	4	3	B
ASVTN-606-2223	Large Animal and Equine Medical Nursing	6	3	A
ASANM-606-1507	Rural Development	6	3	B
ASVTN-603-2224	Development of Land-Based Activities (Animal Establishments)	3	3	A
ASDIS-612-1501	Dissertation	12	3	Year
ASCLP-000-2217	Practicum (Clinical Practice) III	N/A	3	Year



Allocation of Total Learning Hours (per Unit)	The total learning hours required for each unit or module are determined as follows:			
	Credits (ECTS)	Indicative contact hours¹	Self-Learning and Assessment Hours³	Total Student workload (hrs)²
	1	5 – 10 hrs	20 - 15 hrs*	25 hrs
	2	10 – 20 hrs	40 - 30 hrs*	50 hrs
	3	15 – 30 hrs	60 - 45 hrs*	75 hrs
	4	20 – 40 hrs	80 - 60 hrs*	100 hrs
	6	30 – 60 hrs	120 - 90 hrs*	150 Hrs
	9	45 – 90 hrs	180 - 135 hrs*	225 hrs
	12	60 – 120 hrs	240 - 180 hrs*	300 hrs
<i>Note: The 'Self-Learning and Assessment Hours³' amount to the difference between the 'Indicative Contact Hours¹' and the 'Total Student Workload²'</i>				

APPENDIX 1

MINIMUM CREDITS FOR QUALIFICATIONS AT DIFFERENT LEVELS

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

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

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

APPENDIX 2

EXAMPLES OF QUALIFICATION TYPES AT A SPECIFIC MQF LEVEL

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

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

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

ASVTN-506-2201: Companion Animal Care and Husbandry

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit explores the factors and resources necessary to ensure companion animals' physical and mental wellbeing. Learners will learn about the importance of having appropriate physical resources for companion animal health, including food, water, and enclosure size and type where applicable. Furthermore, general husbandry practices will be discussed, along with the necessity of adapting these according to the individual animal, breed, life stage, and health status. Recognition of signs of ill-health will be emphasized, and ways of handling companion animals with minimal stress will be explored*. Various companion animals and their husbandry needs will be considered, including dogs, cats, rabbits, horses, rodents, amphibians, birds, and reptiles.

The relevance of various definitions of animal welfare to companion animal husbandry will also be explored, together with the effect that different views of animal welfare may have on animal husbandry. Ultimately, learners will gain an understanding of the relevance of companion animal husbandry in the animal management and veterinary sectors.

****This unit involves direct contact with animals. Thus, all involved in the preparation and delivery of this unit shall strive to safeguard animal welfare at all times.***

Learning Outcomes

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

1. Outline the classification of various companion animals.
 2. Appraise the importance of adequate companion animal husbandry in ensuring optimum animal welfare.
 3. Appraise requirements that are necessary for ensuring optimal physical and mental health in dogs, cats and horses.
 4. Explain the husbandry needs of rabbits and rodents.
 5. Describe husbandry requirements of fish and birds, and the importance of having adequate husbandry skills.
 6. Discuss husbandry requirements for optimal care of amphibians and reptiles.
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ASVTN-503-2202: Triage and Emergency Nursing

Unit level (MQF/EQF): 5

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

This unit will introduce the learner to the necessary requirements involved in the setting up and adequate management of an emergency area within the veterinary clinic. Learners will explore concepts of patient triage, in order to understand the importance of carrying this out effectively. Phone triage, as well as in-clinic triage, will be discussed. Taking a capsule history and performing a primary survey of the patient in order to determine the need for prioritization will be practised. Learners will also learn to recognize cardiopulmonary arrest in patients, and adequate responses to such situations will be discussed.

Equipment and procedures associated with emergency care will be covered. These will include the application of cardiopulmonary resuscitation, the use of intubation, and oxygen supplementation. Furthermore, specific body injuries requiring emergency treatment will be discussed, including diaphragmatic rupture and upper airway obstruction. Learners will also understand in more detail the definition of “shock”, the different types of shock and ways of treating these to optimize animal survival. Neurological evaluation of animals will also be discussed and ways of treating neurological emergencies, such as those involving seiures or spinal injury, will be explored.

Additionally, ways of providing adequate emergency treatment in case of haemorrhage, wounds, fractures and poisoning will also be discussed. Obstetric, neonatal and paediatric emergencies shall also be considered.

Finally, care of the emergency patient beyond the emergency room will be discussed.

Learning Outcomes

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

- 1. Prepare the emergency room and treatment area for animal emergencies.*
 - 2. Evaluate the emergency patient as per principles of triage.*
 - 3. Care for various animals in emergency situations.*
 - 4. Provide adequate monitoring and nursing care for the emergency patient.*
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ASVTN-506-2203: Veterinary Anaesthesia and Analgesia

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will introduce the learner to veterinary anaesthesia and analgesia. Learners will gain an understanding of the principles of anaesthesia, and explore various anaesthetic techniques, including general and local anaesthetic techniques in various companion animals. The name, use, and maintenance of different anaesthetic equipment, including the anaesthetic machine and various anaesthetic circuits, will be covered. Additionally, the properties of various drugs used in veterinary anaesthesia and analgesia will be discussed. The requirements of the different stages of anaesthesia will be explored, and learners will also gain familiarity with anaesthetic monitoring and the importance of record keeping through the use of anaesthetic record charts.

In order to apply the theoretical knowledge gained, learners will practice preparing equipment and animals for anaesthesia, assisting the veterinary surgeon during anaesthesia, and monitoring and caring for animals at the end of anaesthesia.

Learners will also be introduced to the principles of analgesia, the importance of adequate analgesia and the names and uses of different analgesic drugs. Basic concepts relating to the importance of multi-modal and pre-emptive analgesia will be discussed.

Finally, anaesthetic complications and ways of responding to these will also be explored.

Learning Outcomes

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

- 1. Prepare anaesthetic equipment and materials in the veterinary setting.*
- 2. Prepare veterinary patients for anaesthesia.*
- 3. Assist the veterinary surgeon in the induction and maintenance of anaesthesia in veterinary patients.*
- 4. Provide post-anaesthetic monitoring and care to various veterinary patients.*
- 5. Evaluate pain in animals.*

ASVTN-506-2204: Animal Anatomy and Physiology I

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

An animal's body is composed of different organs and systems that work together to maintain homeostasis. Learners following this unit will explore how the body maintains homeostasis and the importance of this for the animal's health and survival. Learners will also be introduced to anatomical terminology, followed by exploration of the anatomy and physiology of the integumentary, musculoskeletal, haematopoietic, immune and nervous systems. Variations in the anatomy and physiology of various animal species will be exposed and the need for such variations will be discussed.

An understanding of the animal's anatomy and physiology will equip learners with basic knowledge required to acquire the skills outlined in subsequent units, which are essential for practice in the veterinary sector. Such skills include administration of injectable drugs via various routes, as well as the ability to apply their knowledge in order to understand disease pathogenesis, clinical signs and treatment. Maintaining a focus on relating structure to function during unit delivery will further assist the learners in applying their knowledge in a practical setting.

Learning Outcomes

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

1. *Explain the principles of homeostasis and the role of water in the animal body.*
2. *Outline the meaning of various anatomical terms.*
3. *Examine the anatomy and function of the integumentary system and the various types of tissues in the animal's body.*
4. *Illustrate the anatomy and function of the musculoskeletal system.*
5. *Illustrate the anatomy and physiology of the nervous system.*
6. *Examine the anatomy and physiology of the haematopoietic and immune system.*

ASVTN-506-2205: Animal Anatomy and Physiology II

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

An animal's body is composed of different organs and systems whose functioning is important for an animal's health and survival. In this unit, learners will be introduced to the structure and function of various sense organs. Structural and functional adaptations of various organs and body systems in various animals will be discussed.

Learners will also explore the structure and function of the cardiovascular, respiratory, digestive, endocrine and genito-urinary systems. Emphasis will be placed on relating structure to function as well as on the clinical relevance of the anatomical and physiological concepts under study, thereby further assisting the learners in recognizing the relevance of the subject and applying their knowledge in the practical setting.

An understanding of the animal's anatomy and physiology will equip learners with basic knowledge required to understand pathogenesis, clinical signs and treatment of various conditions, which is essential for those wishing to pursue careers in the animal management and veterinary sectors.

Learning Outcomes

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

1. *Examine the cardiovascular system in different animal species.*
2. *Examine the respiratory system in different animal species.*
3. *Compare and contrast the digestive system of various animal species.*
4. *Describe the anatomy and function of the genito-urinary system.*
5. *Describe the anatomy and function of the endocrine system.*
6. *Illustrate how the structure and location of various sense organs in different animals relates to their function and to the animals' survival needs.*

ASVTN-506-2206: Microbiology and Biochemistry

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

An animal's body is composed of a number of different molecules that come together to form the various body organs. Within the animal's body, biochemical processes and cell signalling are constantly occurring to ensure proper body function.

Learners following this unit will explore the structure and function of different molecules and cell types in the animal body, as well as different biochemical processes that are vital for the normal functioning of the animal body. This unit also introduces the learner to the structure and survival mechanisms of various micro-organisms and microscopy.

An understanding of how the cells in the body work equip learners with the basic knowledge that is required to understand the physiology of the animal body. This is vital for learners wanting to enter the veterinary sector and other animal-related sectors. Having a thorough understanding of how the animal body functions, starting from the most basic level, will help the learner understand better how disease can interfere with the function of an animal's body and the rationale behind certain treatment modalities. Furthermore, understanding the structure and reproduction of different micro-organisms will facilitate future understanding of the pathogenesis, diagnosis and treatment of various animal diseases. The importance and relevance of knowledge of cellular structure will be further emphasized and taught through the application of microscopy.

Learning Outcomes

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

1. *Examine different structures of various molecules making up the animal body.*
 2. *Outline the movement of molecules across cells.*
 3. *Examine the structure and function of different cells, cell organelles and micro-organisms.*
 4. *Compare and contrast various cells using a microscope.*
 5. *Illustrate various biochemical processes occurring in the animal body.*
 6. *Examine the development of tumours in animals.*
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ASVTN-506-2207: Principles of Companion Animal Nutrition

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit explores the nutritional requirements of companion animals, starting from the basic requirements relating to the different components of animal diets, such as carbohydrates, protein, fat and water content. The importance of each component for animal growth and development is discussed. The effect of animal species, life-style, life stage and disease on nutritional requirements of animals is also explored. Learners will be exposed to a variety of terms relating to animal dietary formulation, such as digestibility, energy and protein content, and interpretation of food labels will also be discussed. Finally, the potential effect and importance of diet and feeding regimes on an animals' health will be illustrated through the use of various examples such as obesity, diabetes and pancreatitis.

An understanding of how food intake impacts an animal's growth and health is paramount in the veterinary and animal management context, where a number of conditions can be caused by inappropriate nutrition. Furthermore, diet is at times altered to serve as an adjunct treatment or in the prevention of various diseases.

Learning Outcomes

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

1. *Examine the role of different nutrients in the animal's body.*
2. *Discuss the determinants of nutritional and energy requirements of animals.*
3. *Outline the meaning of the different terminology used to describe animal feed, including digestibility, nutrient and protein content.*
4. *Illustrate the various small animal food types available and their constituents and formulation.*
5. *Describe the effect of life stage and life-style on feeding regimes.*
6. *Evaluate the role of diet in disease prevention and treatment.*

ASVTN-506-2208: Veterinary Nursing I

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will introduce the learner to the role of the veterinary nurse. Veterinary nursing requires a variety of knowledge and skills, including awareness of the necessity of health and safety, and disinfection measures. Learners will thus explore the risks and hazards potentially present in the veterinary work place, and ways of mitigating such risks. Furthermore, knowledge of how infection may spread will help students understand the importance of following disinfection protocols and maintaining hygiene and sterility, as applicable. Other clinic management skills, including the ordering and storing of veterinary medicinals and supplies and waste disposal, will also be discussed since veterinary nurses are often involved in these processes in practice.

Learners will also be introduced to animal handling considerations and skills, while highlighting the importance of ensuring both animal and human safety during handling*. The concept of cooperative care will also be introduced, such that learners can consider less invasive alternatives to manual restraint with the aim of minimizing animal stress during routine veterinary visits.

****This unit involves direct contact with animals. Thus, all involved in the preparation and delivery of this unit shall strive to safeguard animal welfare at all times.***

Learning Outcomes

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

1. *Examine the professional responsibilities of the veterinary nurse in the veterinary clinic.*
2. *Discuss the application and relevance of the nursing process and nursing models.*
3. *Illustrate the management of clinical environments, equipment and materials.*
4. *Appraise various animal handling techniques and approaches in the veterinary setting.*

ASVTN-506-2209: Veterinary Nursing II

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will introduce the learner to the role of the veterinary nurse in client communication. Effective and adequate communication is an essential part of the service offered by veterinary clinics. Within the veterinary clinic, the veterinary nurse is an important point of contact for clients in various circumstances, including phone enquiries, admission and discharge of patients, and preventive health clinics. Ultimately, application of acquired communication skills can lead to improved relationships between clients and veterinary staff, leading to better veterinary service provision and improved client and staff satisfaction.

Learners will also be introduced to concepts of in-patient care. This will assist learners in developing an ability to care for hospitalized patients adequately, thereby ensuring their wellbeing. Nursing plans will also be introduced as a way of ensuring individualized patient care. The importance of monitoring, record keeping and communication to veterinary surgeons and other colleagues will be emphasized.

****This unit involves direct contact with animals. Thus, all involved in the preparation and delivery of this unit shall strive to safeguard animal welfare at all times.***

Learning Outcomes

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

1. *Value the importance of adequate and effective communication by the veterinary nurse.*
2. *Provide adequate veterinary advice in various circumstances.*
3. *Carry out veterinary patient admission and discharge procedures.*
4. *Provide adequate nursing care to veterinary in-patients.*
5. *Evaluate the application and relevance of nursing care plans in the veterinary practice.*

ASVTN-506-2210: Veterinary Pharmacology

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will expose the learners to different types of drugs used in veterinary practice. Different drug formulations and different routes of administration will be explored. Learners will also practice the calculation of drug dosages such that these can be effectively carried out in practice.

The importance of safe handling, record keeping and storage of drugs will be discussed. Legal categories of drugs and legislation affecting veterinary drug use will also be covered. Learners will also gain familiarity with nomenclature related to drug dosing and dispensing, such that they are able to understand veterinary surgeon's instructions relating to drug administration in the veterinary setting, and accurately communicate instructions to animal carers.

Finally, learners will also practise labelling and dispensing of drugs, to assist them in performing such tasks effectively and safely in the veterinary setting.

Learning Outcomes

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

1. *Assess factors that affect drug efficacy and safety in the animal body.*
2. *Explain how drugs are classified whilst referring to different examples.*
3. *Administer various veterinary drugs through various routes in veterinary patients.*
4. *Manage veterinary drugs in a clinical environment.*

ASVTN-506-2211: Livestock Production I

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will provide the learners with an in-depth analysis of crucial aspects of livestock production. It starts by building on prior nutrition knowledge and applies these concepts to the livestock sector, especially in relation to the formulation of feed for different species. This will provide the learners with a solid foundation to understand the nutrition management of production farms and which hence will serve to comprehend better the topics that will be covered further in this unit - namely the management of poultry and rabbit farms. Such concepts will allow the learners to appreciate and appraise the decisions that are taken by producers of such farms. Through this unit, the learners will also undertake a number of practical farm tasks such as cleaning, feeding, overall maintenance and more.

Learning Outcomes

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

1. *Create a feeding formulation for a specific animal.*
2. *Explain management processes in a poultry farm.*
3. *Explain management processes in a rabbit farm.*
4. *Use correct procedures when undertaking tasks on a poultry and/or rabbit farm.*

ASVTN-503-2212: Clinical Companion Animal Behaviour

Unit level (MQF/EQF): 5

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

This unit provides an introduction to companion animal behavior, exploring the basic behavioural needs required to ensure optimal mental health in animals. Learners will learn that mental health, together with physical health, are important for animal welfare. Learners will also be introduced to concepts of canine and feline body language and communication, and the importance of understanding these in the animal management and veterinary context will emerge. Learning theory and basics of animal training will be discussed. Furthermore, the importance of appropriate preventive behavioural advice and timely intervention where behavioural issues exist will be examined.

Ultimately, the relevance of an understanding of animal behaviour in the animal management and veterinary sector will be explored, along with the impact that optimal behaviour service provision can have on the welfare of both human and non-human animals.

Learning Outcomes

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

1. *Discuss canine and feline ethology and communication.*
2. *Evaluate requirements for optimal behavioural/mental health in companion animals.*
3. *Outline learning theory and training methods.*
4. *Examine the application of clinical animal behavior in the veterinary context.*
5. *Discuss contributors to sub-optimal behavioural health in companion animals.*

ASRSH-506-1509: Research Methodologies

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This Unit prepares students for their independent research project linked to Fisheries or Aquaculture. In both cases, students are guided in the process of carrying out a research enquiry from initial concept to final report. The unit will demonstrate methodological approaches to collecting and analysing data and will address ethics in research.

Another key aspect of this unit is the development of a working relationship between the student and their supervisor(s) and this will be addressed through the recommended timeline and activities.

Finally the unit will guide students in how to write critically and objectively in producing their final project and how to correctly cite and reference the work of others in their own original work.

Learning Outcomes

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

1. *Develop a research enquiry from initial objectives and a review of others work, through the proposed research.*
2. *Complete the research through to the final report.*
3. *Evaluate findings and results of research project.*
4. *Present the proposal and findings of the project.*

ASVTN-506-2213: Parasitology

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

Parasitology is the study of parasites, their hosts and the relationship between them. To understand the veterinary significance of parasites and their relationship with hosts, various aspects are explored in this unit, including parasite structure and life cycle, modes of transmission, pathogenesis, clinical signs, diagnosis and prevention.

An understanding of the relationship between parasites and hosts lends itself well to the veterinary context, where animals may present with various conditions that may be caused by parasites. This unit will equip learners with the knowledge and awareness required for appropriately addressing parasite-related issues in animals, under the guidance of a veterinary clinician. Furthermore, learners will be able to understand the rationale of various treatment and prophylactic measures that are advised to be taken by animal carers as a way of controlling parasite infection and spread.

Learning Outcomes

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

1. *Outline the classification and nomenclature of parasites and associated terminology.*
2. *Describe the structural and life cycle differences of various parasites of veterinary significance.*
3. *Examine the factors influencing parasite epidemiology.*
4. *Describe various animal parasites in terms of their pathogenesis, clinical signs, diagnosis, epidemiology and prophylaxis.*

ASVTN-506-2214: Microbiology and Pathology

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

Microbiology is the study of micro-organisms, including bacteria, viruses, prions, fungi and yeasts. This unit will explore these different types of micro-organisms in more depth by discussing specific examples of micro-organisms that can cause disease in animals. Structure, pathogenesis, epidemiology and prophylaxis will be discussed for each different micro-organism mentioned.

An understanding of how micro-organisms spread and cause pathology in animals is important in the veterinary context, since animals may present with various conditions that may be caused by various micro-organisms. This unit will thus equip learners with the knowledge and awareness required for appropriately addressing infectious disease in animals, under the guidance of a veterinary surgeon, not only in terms of addressing the needs of a particular animal, but also in terms of avoiding further disease spread and preventing zoonoses where applicable. Furthermore, learners will be able to understand the rationale of various treatment and prophylactic measures that are advised to be taken by animal carers as a way of controlling disease caused by micro-organisms.

Learning Outcomes

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

1. *Examine how bacterial characteristics and bacterial disease pathogenesis may affect clinical signs, diagnosis, treatment and prophylactic measures taken in the presence of bacterial illness in animals.*
2. *Illustrate how knowledge of the transmission and pathogenesis of various viral diseases affects disease diagnosis and measures limiting spread.*
3. *Describe the structure and reproduction of fungi and yeasts while relating these to clinical signs and disease control measures of various fungal diseases in animals.*
4. *Discuss the impact of prions on animals, while giving examples of various transmissible spongiform encephalopathies that they are thought to cause.*
5. *Outline the epidemiology of zoonoses.*

ASVTN-506-2215: Veterinary Diagnostic Techniques I

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will introduce the learner to veterinary radiography health and safety, and the principles of radiography. Specifically, learners will become familiar with X-ray machines and how these work to produce a radiographic image. Patient preparation and positioning for radiography will be discussed and practiced. In this context, the relevant nomenclature associated with obtaining specific radiographic views will be covered, such that learners can produce radiographic views as requested by veterinary staff. Positioning of exotic species will also be considered. The importance of appropriate labelling of radiographs will also be addressed. Learners will also be introduced to contrast radiography.

Furthermore, learners will be introduced to film processing procedures, including manual, automatic and digital radiography. Ability to assess radiographs in terms of labelling, centring, positioning, exposure, processing, collimation, extraneous marks and quality will be practiced through practical sessions. Various potential radiographic faults and ways of overcoming these will be explored. Radiographic machine care will also be covered.

Additionally, learners will also be introduced to basic principles and applications of ultrasonography, magnetic resonance imaging (MRI), computer-aided tomography (CT) and endoscopy.

Learning Outcomes

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

1. *Apply principles of radiography, ultrasonography, CT, MRI and endoscopy in the veterinary setting.*
 2. *Prepare various equipment and animals for diagnostic imaging.*
 3. *Conduct diagnostic imaging on animals in line with wellbeing and safety procedures.*
 4. *Maintain diagnostic imaging equipment used in veterinary practice.*
 5. *Identify common faults in diagnostic images and imaging equipment.*
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ASVTN-503-2216: Veterinary Diagnostic Techniques II

Unit level (MQF/EQF): 5

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

This unit will introduce the learner to veterinary diagnostics associated with laboratory techniques.

Appropriate practice laboratory management, including adequate waste disposal and importance of laboratory health and safety principles will be discussed. Names and uses of various preservation equipment and materials will be covered. Learners will also be introduced to various diagnostic tests that can be carried out and analysed in-house or by external laboratories. Familiarity with the use and care of various laboratory equipment, including the microscope, centrifuge, refractometer, automated analysers and commercial test kits will be gained.

Learners will also gain an understanding of how different patient samples should be collected, prepared and stored until analysis. These patient samples will include blood, urine and faecal samples, skin and hair sampling. Bacteriology, virology and toxicology sampling will also be explored.

The importance of adequate sample collection, preparation and preservation will be examined in the context of its potential impact on laboratory results and patient care.

Learning Outcomes

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

- 1. Describe the health and safety requirements of veterinary laboratory practice.*
- 2. Provide assistance in the collection, preparation and preservation of patient samples.*
- 3. Use techniques for laboratory tests carried out in veterinary practice.*
- 4. Manage the care and maintenance of veterinary laboratory equipment and supplies.*

ASVTN-506-2217: Veterinary Nursing III

Unit level (MQF/EQF): 5

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit will introduce the learners to the role of the veterinary nurse in medical diseases. Information on a range of common infectious and non-infectious diseases in companion animals will be presented. The learners will also be introduced to the nursing aspects to be considered when caring for geriatric, neonatal, soiled, vomiting, anorexic, critically-ill, recumbent and exotic patients.

Learners will also be introduced to procedures that are at times required to ensure optimal patient care, including administration of medicinals through various routes, urinary catheterization, enema administration and oxygen supplementation.

Causes of fluid imbalance in the animal body will also be explored. This will assist learners in understanding choices made in relation to fluid therapy in animals. To this effect, learners will be exposed to different fluid types and guided on making appropriate fluid choices for a compromised patient. Learners will also learn how to calculate patient fluid requirements and assemble fluid therapy equipment. Adequate animal positioning and restraint, as necessary, in order to connect the patient to receive fluid therapy will be discussed and practiced*. Learners will also learn to administer fluid therapy, and how to monitor the patient during and after fluid therapy. Ultimately, problems associated with fluid therapy will be discussed.

****This unit involves direct contact with animals at work placements. Thus, all involved in the preparation and delivery of this unit shall strive to safeguard animal welfare at all times.***

Learning Outcomes

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

1. *Recognise how infectious pathogens cause disease in companion animals and ways of controlling disease spread.*
2. *Discuss the pathogenesis, clinical signs, diagnosis and treatment of various medical conditions in companion animals.*
3. *Evaluate nursing care considerations based on patient condition.*
4. *Perform a variety of veterinary nursing procedures.*
5. *Apply knowledge of fluid therapy in the veterinary setting.*

ASANM-606-1509: Animal Welfare, Ethics & Legislation

Unit level (MQF/EQF): 6

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

The unit starts by describing the different schools of thought that have evolved and which perceive the animal ethics notion from differing angles. This will provide the student with a good understanding of the evolution of these philosophies and how these are applied nowadays to tackle a wide variety of issues related with the treatment and exploitation of animals as will be discussed in the second part of the unit which will delve into the various issues that constitute moral dilemmas for the human race.

In the third and fourth module, the unit will discuss animal welfare of various species and provide the learners with a thorough understanding of the factors affecting welfare and how different species of animals have different needs for them to live and prosper healthily and in good welfare conditions. This will be backed by overviews of various local and European legislations which seek to make sure that animals are kept in good conditions while they are under the care of their owners.

Learning Outcomes

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

- 1. Distinguish between different animal ethics' schools of thought.*
- 2. Discuss major issues and challenges related to animal ethics.*
- 3. Assess animal welfare conditions of a range of farm and lab animals.*
- 4. Understand the roles of various legislations as they relate to the ethical treatment of animals and to the maintaining of good animal welfare.*

ASWBL-509-2202: Work-Based Learning

Unit level (MQF/EQF): 5

Credits: 9

Delivery Mode: Face to Face

Total Learning Hours: 225

Unit Description

This Unit presents comprehensive, specialized, factual and theoretical knowledge that engages a range of cognitive and practical skills required to develop creative solutions to abstract problems in the context of work-based scenarios. Learners will be able to demonstrate that they have the necessary skills to be able to understand the relevance of industrial work-based experience, to exercise management and supervision skills especially where there is unpredictable change and to be able to plan, undertake and review their own placement performance as well as of others within the organisation. Learners will familiarise themselves with important aspects of planning and negotiating for a work-based experience, whilst taking into account business constraints and possible conflicts of interest whilst exercising autonomy and responsibility in managing their expectations of work-based learning when faced with the specific requirements of their work experience.

Work-based Experience is a unit that while implemented as a stand-alone course of studies, it equips the learners with several other skills, including Entrepreneurship, Business Planning and Intrapersonal & Interpersonal Skills, preparing learners towards the successful completion of their studies. This strategy builds learners' skills and knowledge in their chosen career path or furthers their study within the area of interest.

The Unit is relevant to learners wishing to further develop their knowledge and understanding of the benefit of work-based experience in an industrial setting, that various industrial sectors present in Malta and Europe and the ways with which they can access these various career opportunities. On completion of the Unit, learners will have grasped the three step process to preparing for work-based experience: prepare, undertake and review. They will obtain insight into what steps are required in the application process, what resources they require to undertake the placement and the limitations they need to consider before commencing their placement. They will also develop those skills necessary to establish and maintain working relationships with others, including awareness of employment, social and ethical issues, conveying

structured and coherent ideas to peers, supervisors and clients using judgmental skills, and communicating qualitative and quantitative information with some autonomy enabling them to contribute to the organizational team. 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 seek guidance from a mentor or supervisor, contribute their suggestions to business and provide recommendations on how such placements can be improved.

Learners will carry out a placement relevant to their areas of study and interest. Industry-based training is developed by the learner together with the workplace coach and/or WBL mentor and workplace mentor to guide the learner's work-based learning experiences and assist in evaluating achievement and performance, in both the stand-alone WBL unit as well as in the practical work placement component.

Learning Outcomes

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

- 1. Prepare for the performance of multiple tasks and responsibilities related to them.*
- 2. Perform several tasks at the workplace in a timely and effective manner.*
- 3. Establish working relationships with colleagues and superiors.*
- 4. Analyse own work experience for further personal performance development.*

ASANM-606-1507: Rural Development

Unit level (MQF/EQF): 6

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

During this course the learner will be learning the main concepts of rural development and how it is contributing to the local and EU in general. Besides that, other aspects which are linked to rural development will also be discussed such as the contribution of agriculture, the challenges and opportunities of rural livelihoods, natural resources and policies and legislation. Case studies will be an important learning tool so that students can link better the concept of the subject in practice.

Learning Outcomes

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

1. *Describe the origins and evolution of rural development over time.*
2. *Describe EU and local agricultural and rural development policies and their contribution towards rural development.*
3. *Discuss the contribution of rural economic activities towards rural development.*
4. *Explain the contribution of rural areas towards the quality of public goods and the use of natural resources.*
5. *Debate the challenges and opportunities of rural areas.*

ASANM-606-1506: Wildlife Sciences and Conservation

Unit level (MQF/EQF): 6

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit delves into the science of wildlife management and conservation. With a growing concern on biodiversity loss, numerous entities are prioritizing conservation to restore and maintain populations of species. This unit prepares students for work related to habitat management and biodiversity conservation. It starts with an overview of evolutionary mechanisms that played a significant role in giving rise to the myriad of species we currently have in our midst. The unit then seeks to shed light on the importance of biodiversity and on the challenges that are contributing to its decline. Subsequently, a more technical analysis of biodiversity will be undertaken with the dynamics of species populations and the factors affecting their distribution discussed at length. The unit closes with an overview of measures that are commonly used to conserve species followed by the different methods that are usually used to conduct an ecological survey.

Learning Outcomes

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

- 1. Discuss evolutionary processes that gave rise to different plant and animal species.*
- 2. Understand how wildlife can be valued as a resource and the factors threatening it.*
- 3. Explain strategies that can be utilized to conserve wildlife and their respective habitats.*
- 4. Conduct a study of habitats and wildlife population.*

ASCLP-000-2215: Practicum (Clinical Practice) I

Unit level (MQF/EQF): 0

Credits: 0

Delivery Mode: Face to Face

Total Learning Hours: 60

Unit Description

This Practicum unit will complement the units delivered in this course. Learners get to learn and practice various tasks related to veterinary nursing to aid the learner transition into a veterinary clinic environment seamlessly.

The unit will first commence with general nursing skills and clinic management and then progress to the practice of numerous tasks that learners will need a solid foundation in before starting work in a veterinary clinic. Such tasks are related to the roles a veterinary nurse plays in anaesthesia, analgesia and emergency nursing. The last part of the unit delves into the skills required by a veterinary nurse in terms of client communication and consultation.

Learning Outcomes

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

1. *Perform general veterinary nursing tasks whilst assisting in clinic management.*
2. *Provide assistance to the veterinarian in anaesthesia and analgesia procedures.*
3. *Follow correct protocols whilst assisting the veterinarian during veterinary emergencies.*
4. *Perform mock client communication and consultation.*

ASCLP-000-2216: Practicum (Clinical Practice) II

Unit level (MQF/EQF): 0

Credits: 0

Delivery Mode: Face to Face

Total Learning Hours: 60

Unit Description

This Practicum unit will be delivered simultaneously with the other theoretical units of the course and will assist students to practice the skills necessary to master the various competences in the respective modules.

The student will first get to practice the tasks associated with diagnostic techniques including the interpretation of mock results obtained from various lab equipment. This will accustom students to the processes and protocols that would need to be followed in such circumstances. This will be followed by sessions related to basic physical examination of an animal or a model and the unit ends with thorough practice on the setting up and administering fluid therapy.

Learning Outcomes

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

1. *Perform veterinary diagnostic techniques in a veterinary environment.*
2. *Interpret results obtained from various lab equipment.*
3. *Conduct basic physical examinations on a live animal and/or model.*
4. *Follow correct protocols to set up and administer fluid therapy.*

ASCLP-000-2217: Practicum (Clinical Practice) III

Unit level (MQF/EQF): 0

Credits: 0

Delivery Mode: Face to Face

Total Learning Hours: 60

Unit Description

This Practicum unit will complement the units delivered in this course. Learners get to learn and practice various tasks related to veterinary surgical nursing to aid the learner transition into a veterinary clinic environment seamlessly.

The unit will start with overviewing practical tasks related to the organization of the preparation room and the operating theatre. It will then delve into skills related to pre-surgery and the needed communication skills required by the veterinary nurse before, during and after surgery.

The second half of the unit will tackle the skills required by the nurse to care for patients after the operation.

Learning Outcomes

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

1. *Carry out tasks related to the organization of the preparation room and the operating theatre.*
2. *Undertake different pre-surgery tasks.*
3. *Practice effective communication skills during simulated surgery environments.*
4. *Conduct various post-operation tasks.*

ASVTN-603-2218: Business Management

Unit level (MQF/EQF): 6

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

This course will provide learners with a broader view of business planning as a tool that helps business people in decision making. It will introduce learners to applied business principles in land and sea based sectors and how business concepts can be suitably applied for correct business management. This course should also help learners think outside the box in order to create their own concepts and share their passion for business. With a blend of management, marketing and finance, this course takes learners through the entire process of conceiving and planning a business venture with the underlying checks and balances to ensure that such a venture is built on solid foundations.

Learning Outcomes

Upon completing the unit, learners should be able to:

1. *Establish factors to consider when planning a business enterprise.*
2. *Identify suitable mechanisms to monitor the progress of an enterprise.*
3. *Differentiate between different business financial information.*
4. *Understand budgeting and pricing decisions of a business enterprise.*

ASVTN-606-2219: Livestock Production II

Unit level (MQF/EQF): 6

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

This unit provides a thorough understanding of the husbandry and management of swine and ruminants. It delves into the detail of how such farms are managed and how important management factors play a crucial role in the success or otherwise of production of these livestock animals. Aspects related to nutrition, farm management, record-keeping and animal welfare considerations will be discussed and analyzed. The unit will also go in detail on food hygiene, biosecurity and Hazard Analysis Critical Control Point (HACCP) plans and will end with a scientific overview of dairy processes and the various steps and stages of product transformation.

Learning Outcomes

Upon completing the unit, learners should be able to:

1. *Outline how a HACCP Plan is formulated.*
2. *Explain management systems in a pig farm.*
3. *Explain management systems in ruminant farms.*
4. *Comply with procedures to produce a dairy product.*

ASVTN-603-2220: Meat Science

Unit level (MQF/EQF): 6

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

This unit will provide the learner with the knowledge necessary to understand the processes taking place in an abattoir. It starts with an overview of the various processes that occur from when the animal enters the abattoir until the carcass is split into the various meat cuts ready for the market. The discussion then moves on to the various factors that affect the quality of the meat and how carcasses are classified. The third part of the unit delves into the sampling procedures that are carried out on the various livestock animals and the skills that are required to participate in such sampling. Finally, the unit closes off with a discussion on meat storage and the relevant protocols that ensure safe meat for human consumption.

Learning Outcomes

Upon completing the unit, learners should be able to:

1. *Describe the processes from slaughter to market for different livestock animals.*
2. *Evaluate measures of meat quality and carcass classification.*
3. *Outline how meat inspections are carried out.*
4. *Explain the importance of meat storage and HACCP in the meat value chain.*

ASVTN-606-2223: Large Animal and Equine Medical Nursing

Unit level (MQF/EQF): 6

Credits: 6

Delivery Mode: Face to Face

Total Learning Hours: 150

Unit Description

The unit focuses on the nursing and care of large animals- namely equines, ruminants and swine. The majority of the unit is dedicated to the farm care of large animals inflicted with various diseases and provides a thorough discussion of how such issues can be prevented, recognized and treated on the farm. This will provide the learner with a sound knowledge and understanding of how such large animals are nursed by the individuals responsible on the farm. The unit's practical component will give learners the necessary competences to undertake numerous tasks related to the nursing of these animals.

Learning Outcomes

Upon completing the unit, learners should be able to:

- 1. Identify the type of care required for large animals suffering from general systemic states and alimentary diseases.*
- 2. Know the measures that are required to nurse large animals with circulatory, respiratory and urinary diseases.*
- 3. Outline how large animals with nervous, musculoskeletal, skin, eye and reproductive diseases are nursed.*
- 4. Perform various nursing tasks on large animals.*

ASVTN-603-2224: Development of Land-Based Activities (Animal Establishments)

Unit level (MQF/EQF): 6

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

This unit is essential for learners to understand the process that must be taken if they decide on setting up a business related to the rearing and management of animals. This unit mainly deals with the following enterprises: animal farms, pet shops and zoos. It starts by providing learners with a thorough understanding of the administrative procedures that must be followed for an animal-related business to be set up. It spans the whole process- from acquisition of land or premises to taxes and animal registration. The second module deals with the various roles that different local entities play in regulating and supporting animal-related enterprises so that the learner is made aware of the interplay and dynamics between these actors in the local context. The third and last modules go into more detail on the development, design and management of zoos and pet shops.

Learning Outcomes

Upon completing the unit, learners should be able to:

- 1. Manage administrative procedures needed to set up and run an enterprise.*
- 2. Choose the best design for an animal-related enterprise in line with relevant legislation.*
- 3. Explain how pet shops and zoos should be designed.*
- 4. Describe how pet shops and zoos are managed.*

ASVTN-605-2221: Veterinary Surgical Nursing I

Unit level (MQF/EQF): 6

Credits: 5

Delivery Mode: Face to Face

Total Learning Hours: 125

Unit Description

This unit will introduce the learners to the concepts of surgical asepsis and sterility. The importance of these concepts will be discussed and learners will practice ways of maintaining asepsis and sterility. Adequate preparation of the surgical environment, including cleaning routines of the preparation room and the surgical theatre will be addressed. Learners will learn and practice preparation of instrument trolleys and the operating table. Maintenance of surgical equipment, through adequate inspection, hygiene and sterilisation procedures will also be discussed. Learners will gain an understanding of the different methods used in ensuring instrument, drape and surgical gown sterilization.

Learners will also be exposed to different types of surgical instruments and familiarity with their names will be gained, to enable the learner to effectively assist the veterinary surgeon during veterinary surgical procedures. Surgical kit contents for various types of common veterinary procedures will be discussed. Names and uses of different suture materials will also be included, along with different types of suture needles available.

Patient preparation for surgical procedures will be discussed, including preoperative considerations depending on patient condition and surgical procedure. Skin preparation, patient positioning and draping will also be covered. Aseptic preparation of surgical personnel will also be explored and practiced. Ultimately, intra-operative nursing assistance, including the role of the scrub nurse and potential intra-operative problems, will be discussed.

Learning Outcomes

Upon completing the unit, learners should be able to:

1. *Ensure asepsis and sterility during surgery.*
 2. *Organise surgical instruments and materials as required by various surgical procedures.*
 3. *Prepare veterinary patients and surgical personnel for various surgical procedures in different animal species.*
 4. *Assist veterinary surgeons in veterinary surgical procedures while ensuring sterility.*
-

ASVTN-604-2222: Veterinary Surgical Nursing II

Unit level (MQF/EQF): 6

Credits: 4

Delivery Mode: Face to Face

Total Learning Hours: 100

Unit Description

This unit explores post-operative care and complications arising from surgery. The learner will understand adequate post-operative patient monitoring. General surgical and anaesthetic post-operative problems will be explored, such that learners are equipped with the necessary knowledge needed to recognize such issues in veterinary practice. These include problems related to wound healing, anaesthetic recovery, nutrition and gastrointestinal motility and haemorrhage. Learners will also explore how patients may interfere with wounds and potential ways of addressing this while ensuring patient comfort. The unit also addresses the criteria for patient discharge following surgery. Learners will engage in mock scenarios that allow them to practice communication with clients at patient discharge. The learners will also understand the role of the nurse in routine post-operative checks following discharge gain a practical understanding of procedures involving removal of different types of sutures and other wound closure methods.

The unit will also focus on specific surgeries and nursing care specificities. For instance, learners will interpret orthopaedic nomenclature, such as definitions of different types of fractures, and specific surgical equipment used in cases of orthopaedic surgery. Discussions on pre-operative, peri-operative and post-operative considerations for nursing care, following orthopaedic surgery, will take place. Similar aspects of other specific surgeries, including those involving abscesses, hernias and neoplasia, will be explored. Common conditions of various body systems requiring surgery will also be explored. As a result, learners will be aware of specific nursing considerations in different surgical scenarios and will thus be prepared to adequately assist the veterinary team and care for the surgical patient before, during and after various surgical procedures encountered in veterinary practice.

Learning Outcomes

Upon completing the unit, learners should be able to:

- 1. Recognise veterinary patient problems arising post-operatively.*
- 2. Evaluate the importance of adequate client communication in the post-operative period.*
- 3. Provide adequate post-operative nursing care to various veterinary patients undergoing different surgical procedures.*
- 4. Outline peri-operative nursing considerations for various types of veterinary surgeries.*

CDKSK-503-2328: English for Academic Purposes

Unit level (MQF/EQF): 5

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

This unit is intended to be run in the first semester of the first year of undergraduate degree programmes and consolidates prior knowledge, skills, and competences in English reading, writing, listening, and speaking by further strengthening the more academic functions of the language.

Moving beyond key linguistic skills, the purpose of this unit is to provide an EAP (English for Academic Purposes) foundation for degree programmes, focusing specifically on improving learners' awareness and familiarity with the skills necessary for successful academic reading and writing in English at Levels 5 and 6.

Learners will become familiar with academic features of style and the principles and mechanics of good text structure. They will also learn how to consult academic databases to use specialised sources within their field of study, and effectively integrate this information through paraphrase and citation as part of a larger argument or body of work.

Learning Outcomes

Upon completing the unit, learners should be able to:

1. *Recognise the form, content, and style of academic texts.*
2. *Revise writing for academic formality and appropriacy.*
3. *Reproduce sourced content by means of indirect quoting methods.*
4. *Apply proper referencing conventions when citing content.*

CDKSK-503-2329: English for Dissertation Writing

Unit level (MQF/EQF): 5

Credits: 3

Delivery Mode: Face to Face

Total Learning Hours: 75

Unit Description

This unit is intended to be run in the second semester of the second year of undergraduate degree programmes and consolidates prior knowledge, skills, and competences of academic English by further strengthening reading, writing, and speaking skills as determined by the rigours of pre-dissertation research.

English for Dissertation Writing is targeted at learners who have successfully completed their degree programme's first year and exposes undergraduate students to a higher level of critical reading and writing skills demanded by the second and final years of the degree programme. This usually involves the identification of a research topic within one's discipline, clarifying its scope, carrying out a literature search to identify local and international research, reviewing the respective theoretical frameworks, models, or approaches, and considering their eventual application. In this respect, it also complements vocational units such as Research Design or Research Methods but with focus retained on academic reading, writing, and speaking.

English for Dissertation Writing is therefore primarily intended to guide students towards their eventual submission of a dissertation proposal as well as familiarise them with dissertation writing and the viva interview more generally.

Learning Outcomes

Upon completing the unit, learners should be able to:

1. *Evaluate academic sources of information when working on own research proposal.*
 2. *Produce texts of an academic nature using appropriate language and style.*
 3. *Present ideas for own research by outlining the applied problem and proposed approach.*
 4. *Respond effectively to key questions in relation to research in own field.*
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CDKSK-604-2336: Entrepreneurship

Unit level (MQF/EQF): 6

Credits: 4

Delivery Mode: Face to Face

Total Learning Hours: 100

Unit Description

The working definition of 'entrepreneurship' employed in this unit is that stated by the European Commission: "Entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and taking calculated risk, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to-day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs establishing a social or commercial activity" (Entrepreneurship in Vocational Education & Training, June 2009).

In line with this definition, the unit places an emphasis on fostering a mind-set that entrepreneurship is the vehicle that drives creativity and innovation. The learner will, amongst others, be encouraged to gain an insight as to how to investigate customer needs and markets to generate an innovative idea for a start-up; participate in the realistic simulation of the creation of a start-up; create and pitch sections of a business plan, as well as draft sections of a business plan for an identified business idea.

The assessment of the unit is designed in a way to provide an opportunity for learners to strengthen transversal competencies which UNESCO highlights as necessary for the 21st century. These include intrapersonal skills, interpersonal skills, critical and innovative thinking, media and information literacy and global citizenship.

Learners with different backgrounds and experiences are required to contribute actively in a team to prepare the necessary work towards initiating a successful business venture.

In this unit, learners will become familiar not only with the main theories related to entrepreneurship and business start-ups but will have the opportunity to explore, interact and learn from a number of first-hand situations. The challenges of working with diverse team members will provide the learners not only with the possibility to look at entrepreneurial ideas from different perspectives, but also to come up with more creative, original and feasible solutions to arising challenges.

The practical and real-life element of the unit will allow learners to engage and interact with different stakeholders from industry and public institutions. This interaction will provide the ideal set up to link theory with practice in the real world. Learners are encouraged to get out of their comfort zone and explore their entrepreneurial spirit by combining creativity, innovation and risk taking to help seize an opportunity, improve current situations or solve problems they encounter in the real world.

Learning Outcomes

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

- 1. Generate ideas emerging from identified opportunities.*
- 2. Use different techniques to evaluate and assess an idea.*
- 3. Apply business related techniques to implement an idea.*
- 4. Promote an idea through effective communication skills.*

CDKSK-602-2335: Community Social Responsibility

Unit level (MQF/EQF): 6

Credits: 2

Delivery Mode: Face to Face

Total Learning Hours: 50

Unit Description

Community Social Responsibility is a unit designed to explore the concepts and practices of social responsibility within the context of community development and engagement. This unit aims to equip learners with the necessary knowledge, skills, and competences to actively contribute to the betterment of society. Learners will engage in self-reflection, analyze their roles within a community, and develop strategies to make a positive impact on the common good.

Learning Outcomes: By the end of this unit, learners will be able to:

1. Be familiar with the various stages of individual development and enrichment: Learners will explore the different stages of personal growth and development, examining factors such as values, beliefs, and motivations. Through self-reflection and critical analysis, learners will gain a deeper understanding of themselves, their strengths, and areas for improvement.
2. Apply the skills gathered during individual development to relationships with others: Building upon their personal development, learners will learn how to apply the acquired skills, such as effective communication, empathy, and collaboration, in their relationships with others. They will explore strategies to enhance interpersonal skills, build trust, and foster positive connections within diverse communities.
3. Analyze one's own role within a community contributing towards a common good: Learners will critically reflect on their roles and responsibilities within a community, considering factors such as privilege, power dynamics, and social inequalities. They will examine the impact of their actions and explore ways to address community needs, promote inclusivity, and advocate for social justice.
4. Contribute actively to make a difference in society: This unit will provide learners with opportunities to actively engage in community initiatives and service projects. Through experiential learning and practical application, learners will develop the skills necessary to identify social issues, design and implement effective solutions, and evaluate the impact of their actions on society.

Throughout the unit, learners will engage in discussions, case studies, group projects, and exposure to community-based activities. They will be encouraged to think critically, collaborate with peers, and draw upon theoretical frameworks and real-world examples to deepen their understanding of community social responsibility. By the end

of the unit, learners will have gained the knowledge, skills, and motivation to actively contribute to the betterment of their communities and create positive social change.

Learning Outcomes

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

- 1. Recognise the various stages of individual development and enrichment.*
- 2. Apply the skills gathered during individual development to the relationships with others.*
- 3. Analyse one's own role within a community contributing towards a common good.*
- 4. Contribute actively to make a difference in society.*