ANIMAL ANATOMY AND PHYSIOLOGY

UNIT CODE: 0511 451 06 A

TVET CDACC UNIT CODE: AGR/CU/AP/CC/02/5/MA

Relationship to Occupational Standards

This unit addresses the unit of competency: Apply Animal Anatomy and Physiology

DURATION OF UNIT: 100 hours

UNIT DESCRIPTION

This unit describes knowledge, skills and attitudes required to apply animal anatomy and physiology. It involves carrying out animal classification, applying morphology and physiology in animal production.

Summary of Learning Outcomes

By the end of this unit, the learner should be able to:

S/No	Learning Outcomes	Duration (Hours)
1.	Classify farm animals	20
2.	Apply morphology in animal production	40
3.	Apply animal physiological functions	40
Total		**100**

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Classify farm animals	1.1 Classification of mammals based on taxonomic principles ▪ Cattle ▪ Rabbits ▪ Sheep	● Written assessment ● Practical ● Projects ● Third party report ● Portfolio of evidence

	▪ Goats ▪ Donkeys ▪ Camel ▪ Horses 1.2 Classification of Aves based on taxonomic principles ▪ Chicken ▪ Ducks ▪ Guinea fowl ▪ Geese ▪ Turkey 1.3 Classification of Pisces based on taxonomic principles • Tilapia • Nile perch • Cat fish • Mudfish • Salmon fish 1.4 Classification of Reptiles based on taxonomic principles • Crocodile • Turtles • Lizards • Tortoise • Snake 1.5 Classification of Amphibians based on taxonomic principles • Frogs • Toad • Newts	● Oral questions

	• Salamander 1.6 Classification of Arthropods based on taxonomic principles • Tick • Spider • Obsters, • Crabs • Mites • Centipedes • Millipedes	
2. Apply morphology in animal production	2.1 Identification of external features of animals. 2.2 Identification and illustration of Animal anatomical structures. 2.2.1 Vertebral column 2.2.2 Skull 2.2.3 Rib 2.2.4 Forelimb 2.2.5 Hind limb 2.2.6 Pectoral girdle 2.2.7 Pelvic girdle 2.3 Illustration of the relationship between animal structures	● Written assessment ● Practical ● Projects ● Third party report ● Portfolio of evidence ● Oral questions
3.Apply animal physiological functions	3.1 Identification and illustration of Animal organ systems 3.1.1 Circulatory system 3.1.2 Digestive system 3.1.3 Reproductive system 3.1.4 Respiratory system 3.1.5 Excretory system	● Written assessment ● Practical ● Projects ● Third party report ● Portfolio of evidence ● Oral questions

	3.1.6 Nervous system 3.1.7 Lymphatic system 3.1.8 Cardiovascular system 3.1.9 Musculoskeletal system 3.2 Animal physiological processes 3.2.1 Respiration 3.2.2 Thermoregulation 3.2.3 Osmoregulation 3.3 Adaptations Animal body organs 3.3.1 Heart 3.3.2 Lungs 3.3.3 Kidney 3.3.4 Skin 3.3.5 Liver **3.3.6** Pancreas	

Suggested methods of delivery

- Demonstration
- Practical
- Discussions
- Direct instruction

Recommended Resources for 25 Trainees

S/No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A	**Learning Materials**			
	Charts	• Flip Charts • Rules and Regulations	5	1:5

2.	Markers	whiteboard markers and permanent markers	5	1:5
3.	Video clips Audio tapes	MP4, MP3	5	1:5
4.	Newspapers and Handouts	Daily	25	1:1
5.	Business Journals	Annual, Monthly, Daily	25	1:1
6.	Learning specimens	Animals, birds, reptiles, fishes, arthropods, skin, liver, digestive system, kidneys, pancreaseetc	sufficient	
B	**Learning Facilities & Infrastructure**			
7.	Lecture/Theory Room	(9* 8 sq. metres)	1	1:25
8.	Internet Connection	WI-FI, Dial-Up, Cable, Fixed-wireless,	1	1:25
C	**Consumable Materials**			
9.	Flashcards	Alphabet, Numbers, Math	25	1:1
10.	Stationery	Printing Papers, and Exercise Books Sizes A4, A3, A2 etc	5 reams	1:5
D	**Tools And Equipment**			
11.	Computers/Laptops	Any model	1	1:25
12.	Projector	LED.LCD, Laser	1	1:25

13.	Whiteboard	Glass, melamine, porcelain	1	1:25
14.	Models	Skeletons	1	1:25