COMPETENCY-BASED MODULAR CURRICULUM

FOR AGRICULTURE AND EXTENSION
LEVEL 5
(CYCLE 3)

PROGRAMME CODE: 0811 454A

TVET CDACC
P.O. BOX 15745-00100
NAIROBI

ANIMAL ANATOMY AND PHYSIOLOGY

UNIT CODE: 0811 451 06A

TVET CDACC UNIT CODE: AGR/CU/EXT/CC/01/5/MA

UNIT DURATION: 100 HOURS

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Animal anatomy and physiology

Unit Description

This unit describes knowledge, skills and attitudes required to apply animal anatomy and physiology. It involves classifying farm animals, applying morphology and applying 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	40
2.	Apply morphology in animal production	30
3.	Apply animal physiological functions	30
Total		**100**

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods
1. To classify farm animals	**Theory** 1.1 Classification of farm mammals 1.1.1 Define Mammals 1.1.2 Types of mammals 1.1.2.1 Cattle	• Written tests • Third party report • Reflection papers • Projects

	1.1.2.2 Rabbits 1.1.2.3 Sheep 1.1.2.4 Goats 1.1.2.5 Donkeys 1.1.2.6 Camel 1.1.2.7 Horses 1.1.3 Taxonomic classification of mammals 1.1.3.1 Domain 1.1.3.2 Kingdom 1.1.3.3 Phylum 1.1.3.4 Subphylum 1.1.3.5 Class 1.2 Classification of Aves 1.2.1 Define Aves 1.2.2 Types of Aves 1.2.2.1 Chicken 1.2.2.2 Ducks 1.2.2.3 Guinea fowl 1.2.2.4 Geese 1.2.2.5 Turkey 1.2.3 Taxonomic classification of Aves 1.2.3.1 Domain 1.2.3.2 Kingdom 1.2.3.3 Phylum 1.2.3.4 Subphylum 1.2.3.5 Class 1.3 Classification of Pisces 1.3.1 Define Pisces 1.3.2 Types of Pisces Tilapia 1.3.2.1 Nile perch 1.3.2.2 Cat fish	• Interviews/ Oral questions • Workshop reports • Individual/group assignments • Case Studies • Practicals

	1.3.2.3 Mudfish 1.3.2.4 Salmon fish 1.3.3 Taxonomic classification of Pisces 1.3.3.1 Domain 1.3.3.2 Kingdom 1.3.3.3 Phylum 1.3.3.4 Subphylum 1.3.3.5 Class 1.4 Classification of Arthropods 1.4.1 Define Arthropods 1.4.2 Types of Arthropods 1.4.2.1 Tick 1.4.2.2 Spider 1.4.2.3 Lobsters 1.4.2.4 Crabs 1.4.3 Taxonomic classification of Arthropods 1.4.3.1 Domain 1.4.3.2 Kingdom 1.4.3.3 Phylum 1.4.3.4 Subphylum 1.4.3.5 Class	
2. To apply morphology in animal production	**Theory** 2.1 Animal production morphology 2.1.1 Definition of terms 2.1.1.1 Animal production 2.1.1.2 Animal morphology 2.1.1.3 Animal anatomy 2.1.2 Animal external features 2.1.3 Animal anatomical structures 2.1.3.1 Vertebral column 2.1.3.2 Skull	• Written tests • Third party report • Reflection papers • Projects • Interviews/ Oral questions • Workshop reports • Individual/group assignments • Case Studies

	2.1.3.3 Rib 2.1.3.4 Forelimb 2.1.3.5 Hind limb 2.1.3.6 Pectoral girdle 2.1.3.7 Pelvic girdle 2.1.3.8 Animal structures relationship	• Practicals •
3. To apply animal physiological functions	**Theory** 3.1 Animal physiological functions 3.1.1 Thermoregulation 3.1.2 Osmoregulation 3.1.3 Respiration 3.2 Animal organ systems 3.2.1 Circulatory system 3.2.2 Digestive system 3.2.3 Reproductive system 3.2.4 Respiratory system 3.2.5 Excretory system 3.2.6 Nervous system 3.2.7 Lymphatic system 3.2.8 Cardiovascular system 3.2.9 Musculoskeletal system 3.2.10 Integumentary system 3.2.11 Endocrine system 3.3 Animal body organs	• Written tests • Third party report • Reflection papers • Projects • Interviews/ Oral questions • Workshop reports • Individual/group assignments • Case Studies • Practicals

	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 Instruction

- Role playing
- Group discussion
- Direct instruction

Recommended Resources for 25 Trainees

S/No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A	**Learning Materials**			
9.	Journals		5 pcs	1:5
10.	writing materials		50	2:1
11.	Charts	Animal Anatomical structure	1	1:25
12.	PowerPoint presentations	For trainer's use		
13.	Whiteboard		1	1:25
14.	Assorted color of whiteboard markers	For trainer's use		
15.	Printers		1	1:25
16.	Projector		1	1:25

B	**Learning Facilities & infrastructure**			
3.	Lecture/theory room		1	1:25
4.	Agriculture lab		1	1:25
5.	Animal skeletal		1	1:25