

## VERTINARY PHARMACOLOGY AND TOXICOLOGY

**ISCED UNIT CODE:** 0512 551 37A

**TVET CDACC UNIT CODE:** HE/CU/AHP/CR/03/6/MA

### **Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Manage veterinary pharmaceuticals and toxins.

**UNIT DURATION:** 90 Hours

### **Unit Description**

This unit specifies the competencies required by an animal health and production technologist to manage veterinary pharmaceuticals and toxins. It involves dispensing and administering veterinary drugs, managing drug toxicities and toxins in animals.

### **Summary of Learning Outcomes**

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

<b>S/No</b>	<b>Learning Outcomes</b>	<b>Duration (Hours)</b>
1.	Dispense veterinary drugs	<b>30</b>
2.	Administer veterinary drugs	<b>20</b>
3.	Manage drug toxicities	<b>20</b>
4.	Manage toxins in animals	<b>20</b>
<b>Total</b>		<b>90</b>

### **Learning Outcomes, Content and Suggested Assessment Methods**

<b>Learning Outcomes</b>	<b>Content</b>	<b>Suggested Assessment Methods</b>
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<p>1. Dispense veterinary drugs</p>	<p>1.1. Introduction to pharmacology</p> <p>1.2. Define terms</p> <p>1.2.1. Pharmacology</p> <p>1.2.2. Toxicology</p> <p>1.2.3. Pharmacokinetics</p> <p>1.2.4. Pharmacodynamics</p> <p>1.2.5. Lethal dose 50</p> <p>1.2.6. Bioavailability</p> <p>1.2.7. Potency</p> <p>1.3. Dispense veterinary drugs</p> <p>1.3.1. Dosage and dosage rates</p> <p>1.3.2. Prescription writing</p> <p>1.3.3. Withdrawal periods.</p> <p>1.4. Personal protective equipment for dispensing veterinary drugs</p> <p>1.4.1. Gloves</p> <p>1.4.2. Overall</p> <p>1.4.3. Dust coats</p> <p>1.4.4. Gumboots</p> <p>1.4.5. Face masks</p> <p>1.5. Veterinary drugs</p> <p>1.5.1. Anesthetics</p> <p>1.5.2. Anti-inflammatory</p> <p>1.5.3. Antibiotics</p> <p>1.5.4. Anthelmintic</p> <p>1.5.5. Antifungal</p> <p>1.5.6. Antihistamines</p> <p>1.5.7. Antidiuretic</p>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Portfolio of evidence</li> <li>• Third party report</li> <li>• Written assessment</li> <li>• Oral questioning</li> </ul>
<p>2. Administer veterinary drugs</p>	<p>2.1. Veterinary drugs administration</p> <p>2.2. Tools, materials and equipment</p> <p>2.2.1. Writing materials</p> <p>2.2.2. Antibiotics</p>	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Portfolio of evidence</li> <li>• Third party report</li> </ul>

	2.2.3. Syringe and Needle 2.2.4. Swab	<ul style="list-style-type: none"> <li>• Written assessment</li> <li>• Oral questioning</li> </ul>
3. Manage drug toxicities	3.1. Introduction to drug toxicities 3.2. Causes of drug toxicities 3.3. Diagnosis of drug toxicities 3.4. Management of drug toxicities 3.5. Prevention and control of drug toxicities	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Portfolio of evidence</li> <li>• Third party report</li> <li>• Written assessment</li> <li>• Oral questioning</li> </ul>
4. Manage toxins in animals	4.1. Introduction to toxins 4.2. Types of toxins 4.2.1. Pains 4.2.2. Poisonous plants 4.2.3. Pesticides 4.2.4. Aflatoxin 4.2.5. Batteries 4.2.6. Poisonous animals 4.2.7. Prevention and control of toxins	<ul style="list-style-type: none"> <li>• Practical</li> <li>• Project</li> <li>• Portfolio of evidence</li> <li>• Third party report</li> <li>• Written assessment</li> <li>• Oral questioning</li> </ul>

### Suggested Methods of delivery

- Practical
- Projects
- Demonstrations
- Group discussion
- Direct instructions

### Recommended Resources for 25 trainees

S/No.	Category/Item	Description/Specification	Quantity	Recommended Ratio (Item: Trainee)

1.	Learning materials			
2.	Projector		1	1:25
3.	Whiteboard/Smart board		1	1:25
4.	Desktop/computer		1	1:25
5.	Lecture/Theory room		1	1:25
6.	Animal farm	As guided by KVB	1	1:25
7.	Library		1	1:25
8.	E-Library		1	1:25
9.	Drenching gun		5	1:5
10.	Syringes and needle		25	1:1
11.	Scalpel blades		25	1:1
12.	Diagnostic kit		5	1:5
13.	Thermometer		25	1:1
14.	Stethoscope		25	1:1