

BASIC EPIDEMIOLOGY

ISCED UNIT CODE: 0912 541 14A

TVET CDACC UNIT CODE: HE/CU/AHP/CC/18/6/MA

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Apply knowledge of basic epidemiology.

UNIT DURATION: 50 Hours

Unit Description

This unit specifies the competencies required by animal health and production technologists in order to apply knowledge of basic principles of epidemiology. It involves applying principles of epidemiology, knowledge of disease occurrence, carrying out disease surveillance, developing and applying disease prevention programme.

Summary of Learning Outcomes

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

S/No	Learning Outcomes	Duration (Hours)
1.	Apply principles of epidemiology	10
2.	Apply knowledge of disease occurrence	10
3.	Carry out disease surveillance	10
4.	Develop and apply disease prevention programme	20
Total		50

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods
1. Apply principles of epidemiology	1.1. Principles of Epidemiology 1.2. The distribution and determinants of health-related events in a specific population 1.3. The scope of epidemiology 1.4. Importance of epidemiology	<ul style="list-style-type: none">• Practical• Project• Portfolio of evidence• Third party report

	<p>1.5. Descriptive, analytic and clinical epidemiology</p> <p>1.6. Measures of association</p>	<ul style="list-style-type: none"> • Written assessment • Oral questioning
<p>2. Apply knowledge of disease occurrence</p>	<p>2.1. Determinants of diseases</p> <p>2.1.1. Primary determinants</p> <p>2.1.2. Secondary</p> <p>2.1.3. Intrinsic</p> <p>2.1.4. Extrinsic</p> <p>2.2. Measures of disease occurrence</p> <p>2.3. Disease transmission and agent's factors</p> <p>2.4. Factors of maintenance of infections</p> <p>2.5. Disease patterns and factors influencing disease patterns</p>	<ul style="list-style-type: none"> • Practical • Project • Portfolio of evidence • Third party report • Written assessment • Oral questioning
<p>3. Carry out disease surveillance</p>	<p>3.1. Study designs</p> <p>3.1.1. Incidence studies</p> <p>3.1.2. Incidence cases</p> <p>3.1.3. Prevalence studies</p> <p>3.1.4. Prevalence cases</p> <p>3.2. Disease monitoring and surveillance</p> <p>3.3. Sources of surveillance data</p> <p>3.4. Department of veterinary services in the Ministry of Livestock Development</p> <p>3.4.1. Veterinary Laboratories</p> <p>3.4.2. Private veterinary practitioners</p> <p>3.4.3. Non-governmental organizations</p> <p>3.4.4. Livestock research organizations such as the International Livestock Research Institute (ILRI)</p> <p>3.5. Disease surveillance data</p>	<ul style="list-style-type: none"> • Practical • Project • Portfolio of evidence • Third party report • Written assessment • Oral questioning
<p>4. Develop and apply disease prevention</p>	<p>4.1. Disease prevention programs</p> <p>4.1.1. Vaccinations</p> <p>4.1.2. Quarantine</p>	<ul style="list-style-type: none"> • Practical • Project

programme	4.1.3. Vector control 4.1.4. Adequate nutrition 4.1.5. Good husbandry management practices 4.2. Surveillance and reporting 4.3. Adequate nutrition 4.4. Good husbandry management practices 4.5. Notifiable diseases 4.5.1. Rabies 4.5.2. Anthrax 4.5.3. Rift valley fever 4.5.4. Rinderpest 4.5.5. Newsastle disease 4.6. Notifiable diseases reporting	<ul style="list-style-type: none"> • Portfolio of evidence • Third party report • Written assessment • Oral questioning
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Suggested Methods of delivery

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

Recommended Resources for 25 Trainees

S/No.	Category/Item	Description/ Specification	Quantity	Recommended Ratio (Item: Trainee)
	Learning materials			
1.	Projector		1	1:25
2.	Whiteboard/Smart board		1	1:25
3.	Desktop/computer		1	1:25

4.	Lecture/Theory room		1	1:25
5.	Laboratory	As guided by KVB	1	1:25
6.	Animal farm	As guided by KVB	1	1:25
7.	Library		1	1:25
8.	E-Library		1	1:25