TAXONOMICAL CONCEPTS

ISCED UNIT CODE: 051 1551 08A

TVET CDACC UNIT CODE: APB/CU/AB/CC/02/6/MA

Relationship to Occupational Standards

This unit addresses the Unit of Competency: **Carry out taxonomical concepts**.

Duration: 130 Hours

Unit Description

This unit describes the competencies required by an applied biology technologist to apply taxonomical concepts. It involves applying principles of classification, carrying out kingdom Monera survey, carrying out kingdom Protoctista survey, carrying out kingdom fungi survey, carrying out kingdom plantae survey, carrying out kingdom Animalia survey, and constructing dichotomous key

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 classification	20
2.	Carry out kingdom Monera survey	20
3.	Carry out kingdom Protoctista survey	20
4	Carry out kingdom Fungi survey	20
5	Carry out kingdom Plantae survey	20
6	Carry out kingdom Animalia survey	20
7	Construct dichotomous key	10

	TOTAL	**130**

Learning Outcomes, Content and suggested methods of assessment

Learning Outcome	Content	Suggested methods of assessment
1. Apply principles of classification	1.1 Collection instruments 1.2 Collection of specimens 1.3 General Classification of specimens	• Practical assessment • Project • Portfolio of evidence • Written tests • Oral assessment
2. Carry out kingdom Monera survey	2.1 Characteristics of Kingdom Monera 2.2 Classification in Kingdom Monera 2.3 Samples of Kingdom Monera 2.4 Economic importance of Kingdom Monera 2.5 Diseases 2.6 Ecological relationships 2.6.1 Food 2.6.2 Industrial	• Practical assessment • Project • Portfolio of evidence • Written tests • Oral assessment

3. Carry out kingdom Protoctista survey	3.1 Characteristics of Kingdom Protoctista 3.2 Classification in Kingdom Protoctista	• Practical assessment • Project • Portfolio of evidence
	3.3 Samples of Kingdom Protoctista 3.4 Economic importance of Kingdom Protoctista 3.4.1 Diseases 3.4.2 Ecological relationships 3.4.3 Food 3.4.4 Industrial	• Written tests • Oral assessment
4. Carry out kingdom Fungi survey	4.1 Characteristics of Kingdom Fungi 4.2 Classification in Kingdom Fungi 4.3 Samples of Kingdom Fungi 4.4 Economic importance of Kingdom Fungi 4.4.1 Diseases 4.4.2 Ecological relationships 4.4.3 Food 4.4.4 Industrial	• Practical assessment • Project • Portfolio of evidence • Written tests • Oral assessment

5. Carry out kingdom Plantae survey	5.1 Characteristics of Kingdom Plantae 5.2 Classification in Kingdom Plantae	• Practical assessment • Project • Portfolio of evidence
	5.3 Samples of Kingdom Plantae 5.4 Economic importance of Kingdom Plantae 5.4.1 Diseases 5.4.2 Ecological relationships 5.4.3 Food 5.4.4 Industrial	• Written tests • Oral assessment

6. Carry out kingdom Animalia survey	6.1 Characteristics of Kingdom Animalia 6.2 Classification in Kingdom Animalia 6.3 Samples/specimens of Kingdom Animalia 6.4 Economic importance of Kingdom Animalia 6.1.1 Diseases 6.1.2 Ecological relationships 6.1.3 Food 6.1.4 Industrial	• Practical assessment • Project • Portfolio of evidence • Written tests • Oral assessment
7. Construct dichotomous key	6.1 Characteristics of organisms 6.2 Dichotomous key	• Practical assessment • Project • Portfolio of evidence

	6.3 Use of dichotomous key in identification.	• Written tests • Oral assessment

Suggested Methods of instruction

- Practical
- Projects
- Group discussions
- Demonstration
- Field trips/site visits
- Direct instruction

Recommended Resources for 25 Trainees

S/No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A	Learning Materials			
1)	Power point presentations	For trainer's use	1	1:25
2)	Field guides	For trainee's	1	1:25
3)	Charts and diagrams illustrating taxonomic hierarchies and classifications	For trainees and trainer's use	10	1:3
4)	Rulers, Pencils and erasers	For trainee's use	Varies	Varies
5)	Drawing sheets	For trainee's use	Varies	Varies
6)	Relevant videos	For trainees and trainer's use	Varies	Varies
B	Learning Facilities & Infrastructure			
7)	Lecture/theory room	For trainers and Trainee's use	1	1:25
8)	Computers	For trainee's use	5	1:5
9)	Well-equipped laboratory facility	For trainers and Trainee's use	1	1:25

10)	Whiteboard	For trainer's use	1	1:25
11)	Internet	For trainers and Trainee's use	1 connection	1:25
12)	Consumable materials			
13)	Collecting vials	For trainee's use	50	2:1
14)	Calculator	For trainee's use	25	1:1
D	Tools and Equipment			
15)	Insect nets	For trainee's use	10	1:3
16)	GPS	For trainee's use	5	1:5
17)	Projector	For trainer's use	1	1:25